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Factors and Issues Related to Children's Play and Their Implications on Play and Recreation Provision in Dhaka City

By

AFROZA AHMED

A Doctoral Thesis

Submitted in partial fulfillment of the requirements for the award of

Doctor of Philosophy of Loughborough University

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ABSTRACT

Play is a fundamental right and a vital component of the life of every child. It is an inevitable element for the child's overall development and has a direct impact on physical, mental and social wellbeing. Through the play process, a child transforms from childhood to a healthy adult with the required skills such as cognitive, motor, psychological, health, education, communication and creativity to be a future citizen of a nation. More than 2 million children live in Dhaka city, the capital of Bangladesh. It is one of the fastest growing cities in the world but lacks children's play and recreation facilities. Due to land scarcity, outdoor recreational spaces such as parks and playgrounds are being encroached upon by different profitable land uses like housing, industries, commercial and utility services. As a consequence, open space for children's play shrunk significantly and resulted in one of the lowest ratios of open space to population in the world. As a result, the children of Dhaka city are deprived of outdoor play and recreation provision which affects their overall physical and mental development.

This research is aimed at exploring the factors and issues related to children's play from children's and adults' perspective and then recommend planning guidelines for children's play and recreation provision of Dhaka city. The research analyzes the accessibility for the children of four socio-economic groups- street children, children living in slums, children from medium and high income brackets. The following are the objectives of the research:

i. Identify children's perceptions and needs regarding the outdoor play and recreation provision in Dhaka city;
ii. Assess the existing condition of the outdoor play and recreation provisions in terms of physical condition of the facilities, use pattern and accessibility for children of different socio-economic condition of Dhaka city;
iii. Identify factors and issues regarding children's outdoor play and recreation provision planning; and
iv. Formulate appropriate planning guidelines and institutional arrangements for play and recreation provision for different groups of children living in Dhaka city.

Both qualitative and quantitative data are collected from 846 children from the four socio-economic brackets and their parents in Dhaka city. For qualitative data analysis,

techniques of sorting, grouping, data-reduction etc. were used. Statistical Package for Social Science (SPSS) was used for analysing the data from the questionnaire survey of the outdoor play and recreation facilities users. To assess the accessibility and equity of Dhaka's outdoor play and recreation facilities, mapping of all the playgrounds, play fields, parks and amusement parks was done through extensive field investigation and field validation. The ArcView GIS software was used for mapping and to assess the accessibility of the outdoor play and recreation facilities in Dhaka city. The key research findings are:

i. Children's perceptions and needs for outdoor play and recreation provision of Dhaka city differ according to socio-economic background, age and gender;
ii. The so-called play and recreation facilities provided by the concerned authority cater only for a fraction of the children of Dhaka city;
iii. Play and recreation facilities provided by the concerned authority cater only a fraction of the children of Dhaka city;
iv. There is a decreasing trend in the provision of areas of outdoor play and recreation facilities in Dhaka city;
v. The accessibility of outdoor play and recreational facilities is not the only determining factor for the children of Dhaka city to enjoy outdoor facilities. Lack of security, poor maintenance and inadequate play facilities and accessories are the main reasons for not using playgrounds and parks by children in Dhaka city;
vi. Play is not perceived as one of the priority needs for children in Dhaka city; and
vii. Planning of children's outdoor play and recreation facilities is related to child development, child rights, city planning and social development.

Finally, the research suggests an institutional arrangement comprising professionals from child development, city planning and social development for the planning and implementation of the outdoor play provision, which can be used not only in Dhaka and other cities of Bangladesh but also in other Asian cities as well.

ACKNOWLEDGEMENTS

First of all, I am grateful to the Almighty Allah for giving me the opportunity and strength to carry out this enormous work.

I am grateful to several people who have contributed in different ways to this research. First of all, I am deeply grateful to my research supervisor Professor Muhammad Sohail Khan for his persistent encouragement, expert guidance, valuable advice and patience. He always gave me constructive and valuable advice which enabled me to carry out this research.

I am also grateful to Loughborough University for providing financial support to conduct the fieldwork. I also got cooperation from the Loughborough University staff and particularly I am thankful to Water, Engineering Development Centre (WEDC) staff especially Ms. Tricia Jackson for her advice and assistance in proof reading.

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I am grateful to all the children who shared with us their views with us and gave valuable insights and views in the research area. It was a great inspiration for me to work with the children and learn to understand their perceptions.

I am also thankful to my friends and relations in Loughborough and London particularly, Sourani, Kollayan, Shaheen Bhabi, Manik Bhai, Bani Apa, Shampa for their support during my stays in Loughborough and London. I would like to mention everyone who has helped me one way or the other neither time nor space would permit me do so. To you all, I say a big “Thank You”.

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PERSONAL STATEMENT

The researcher has multi-faceted academic and work experience related to architecture, urban planning, infrastructure development, child development and participatory project planning and design. This research is an attempt to analyse all the aspects related to play and recreation provision using different tools and techniques and provide a holistic approach to work in these areas.

The researcher obtained training on different qualitative research tools such as Focus Group Discussions (FGDs), In-depth interviews and Key informant interviews when she participated in the Urban Household Livelihood assessment exercise while she worked for CARE International. During the assessment process, she conducted FGDs and in-depth interviews and learned how to prepare reports on these subjects and also received training on and gained experience in qualitative data analysis methods.

The quantitative tool- Statistical Package for Social Science (SPSS)- was used to prepare tables using the data from the questionnaires survey. The software was also used for data processing and preparation of cross tabulation. The researcher received training on this software during her Master's thesis work at Bangladesh University of Engineering and Technology (BUET).

The researcher received training on Geographical Information System (GIS) based geospatial analysis such as buffer zone analysis, spatial overlay etc. when she worked in the Dhaka Metropolitan Development Planning (DMDP) Project, as an urban planner during 1992-1995. During that time she worked closely with the GIS team and learned the use of different functions of GIS ArcView and Arc Info software. She also received training on GIS software when working with BUET for needs assessment analysis on water and sanitation facilities in 14 municipalities of Bangladesh.

The researcher's long experiences of working with United Nations Children's Fund (UNICEF), particularly in their areas of adolescent development and participatory approaches, has allowed her to gain a very sound understanding of working with children, including ethical issues for conducting research.

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LIST OF ACRONYMS

ADB	Asian Development Bank
ARISE	Appropriate Resources for Improving Street Children's Environment
BHIS	Bangladesh Health and Injury Survey
BAPA	Bangladesh Paribesh Andolon (Bangladesh Environment Movement)
BBS	Bangladesh Bureau of Statistics
BFDC	Bangladesh Film Development Corporation
BIP	Bangladesh Institute of Planners
CUS	Centre for Urban Studies
CRC	Convention on the Rights of a Child
CFCI	Child Friendly Cities Initiatives
DAP	Detail Area Plan
DCC	Dhaka City Corporation
DMDP	Dhaka Metropolitan Development Plan
DND	Dhaka-Narayanganj-Damra
DSMA	Dhaka Statistical Metropolitan Area
FGD	Focus Group Discussion
IAB	Bangladesh Institute of Architects
MIT	Massachusetts Institute of Technology
MOST	Management of Social Transformation
GIS	Geographical Information System
GUIC	Growing Up In Cities
PWD	Public Works Department
RAJUK	*Rajdhani Unnayan Kartripakhya* (Capital Improvement Authority)
SPSS	Statistical Package for Social Scientist
UAP	Urban Area Plan
UCEP	Under Privileged Children's Education Programme
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund

CHAPTER 1: INTRODUCTION

1.0 Introduction

This opening chapter gives a brief background of the research subject and focuses on the importance of play and recreation for children's development. The chapter explains the background, context and rationale of the research in the context of Dhaka city and similar cities of the world. The research objectives, expected outcomes, research audience, operational definition of terms used in the study and limitations are described. The primary target groups, delimitation of scope and thesis organization are presented in this chapter. It also outlines the knowledge gaps related to children's perceptions, their views on the existing condition, absence of a framework for the play initiative related to children's outdoor play and recreation for Dhaka city. Finally, this chapter discusses the conceptual framework of this research work with objectives, respective research questions, sub-questions, methods or tools used and the sources of information for each of the research questions.

1.1 Background

Play is fundamental to all domains of physical, intellectual, social and emotional well-being of children (Hart, 2002). Play is a basic human drive and is fundamental to children's overall development and through the play, a child lives a full life as it promotes physical fitness, enhances social interaction and improves self esteem (Goss, 2006; Hossain, 2004; Bartlett, 1999). The central role of children's play is learning including motor skills, communication skills, problem solving, creativity, logical thinking, aesthetic and emotional development (Hughes, 1990; Hart, 2002; Bartlett, 1999; Chawla, 2002a; Barnett, 1990; Beard and Ragheb, 1980; Mergen, 1975). Most children choose to play passionately with the world around them through exploration, manipulation, physical exuberance, experimentation encouraged by diverse and stimulating environment (Bartlett, 1999). The child's right to play is recognized in the following international declaration/forum:

The United Nations Declaration on the Rights of the Child mentioned in Article 7, "*The child shall have full opportunity for play and recreation which should be directed to the same purpose as education; society and the public authorities shall endeavour the enjoyment of this right"* (Hughes, 1990, p.58).

The United Nations adopted the Convention on the Rights of the Child (CRC) in 1989, which includes a set of clauses regarding children's right to express their views on

matters that affect them. The Convention on the Rights of the Child is the first International Child Rights body to recognize play as a children's basic right not merely a need. Article 31 of CRC stresses the responsibility of the state to ensure an enabling appropriate environment according to age in order to realize the right and it states *"State Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and arts*" (UNICEF, 2002a, p. 74).

1.2 The Research Context

According to the 2001 census, Bangladesh has a population of approximately 123 million with a population density of 834 persons/sq.km. Dhaka city, the capital of Bangladesh, is experiencing extremely fast urbanization with one of the highest population densities of the world at 1,304 person/sq.km (BBS, 2001). From a small town with a population of only 200,000 people in 1947, Dhaka grew to a city of 4.2 million in 1987, and has now become a mega city of nearly 10 million (BBS, 2001). It is found that the population increased about 63 fold whereas the land area increased only about 20 fold in Dhaka city from 1947 to 2005. Trends of population growth and area with projection up to 2020 of Dhaka city are shown in the table below:

Table 1.1: Trends of population growth with area of Dhaka city

Year	Population	Area in sq.km	Density Population per sq.km	Administrative Identity
1947	200,000	73	2,739	Dhaka City (Capital of East Pakistan)
1971	900,000	323	2,786	Dhaka City (Capital of Bangladesh)
1981	3440,000	401	8,578	Dhaka Statistical Metropolitan Area (DSMA)
1991	6844,000	1353	5,058	Dhaka Statistical Metropolitan Area (Dhaka Megacity)
2001	9900,000	1353	7,317	Dhaka Megacity
2005	12,623,000	1530	8,250	Dhaka Metropolitan Development Plan (DMDP) Area/ RAJUK Area
2010	14,230,000	1530	9,300	Dhaka Metropolitan Development Plan (DMDP) Area/ RAJUK Area
2020	25,000,000	1530+	16,339+	Dhaka Metropolitan Development Plan (DMDP) Area/ RAJUK Area

(Source: Islam and Shafi, 2008)

Not so very long ago, Dhaka had an image of a city of greenery and water bodies, but within the last few decades Dhaka has turned into one of the most polluted and crowded cities in the world (Biswas, 2002). Rapid urbanization, congestion, pollution, traffic jams and unplanned development and a rapidly increasing population have made Dhaka a concrete jungle with inadequate room for outdoor play and recreation facilities (Ahmed and Sohail, 2005). Also it reveals that due to the absence of any play facilities and services, poor children, particularly children living on streets and slums, are susceptible to addiction like cigarette smoking, heroin etc. (DISA and UCEP-Bangladesh, 2005).

The Bangladesh Health and Injury Survey (BHIS, 2005) found that injury accounts for 38 percent of all classified deaths in children aged between 1 and 17 years in Bangladesh. On 26 December 2003, most of the daily newspapers of Bangladesh published news of the death of five children at Uttara Model Town, in the outskirts of Dhaka city. It was reported that five children including three girls were killed when they accidentally fell in a water tank while playing in the premises of an abandoned house (The Bangladesh Observer, 2003). This is only one example of such incidents. Although there are no specific data showing the direct relationship between injury and improper play spaces available in the community, there is some evidence that most of these accidents happened due to the non-availability of proper play areas for children and children's desire for play where ever possible (Bartlett,1999; BHIS, 2005). The incident also reminds the play and recreation service providers and policymakers of the need to recognize children's needs for safe and child friendly play and recreation facilities at the community level. This also emphasizes the importance of knowing more on the children's needs about their play.

There are two types of open space for recreation in Dhaka city: open space for active recreation such as play-lots, playing fields, playgrounds, sports grounds, stadiums etc. and open space for passive recreation such as gardens, parks, parkways, green belts, botanical gardens, zoological gardens etc. (Nabi, 1978). This study considered major outdoor play areas for children in Dhaka city to be playgrounds, parks, and amusement parks. Although the number of amusement parks is not very significant in terms of the capacity and areas, it seems that these amusement parks are the only outdoor recreation places available for the girls. The following types of play and recreation space are considered for the research:

Playgrounds: A public outdoor area where people go for recreation and usually equipped with facilities for games like football, cricket, badminton etc.

Parks: An enclosed piece of ground in or near a city or town kept for ornament and recreation and maintained as public property.

Amusement parks: A public or commercially operated park with various devices for entertainment and usually with booths for the sale of food and drink. The entry fee for these amusement parks varies between BDT 330-550 or GBP 3-5 (1 GBP = 110 BDT). Merry Go Round, Jet Star, Wonder Wheel, Chair Tower, Benkico Train, Flower Cup, Astro Fighter, Battery operated car, Roller Coaster, Helicopter Corner, Trampoline, Video games etc. are the common recreation items in the amusement parks in Dhaka city. The following photographs show the physical condition of playgrounds and parks in Dhaka city:

Figure 1.1: Slum children playing with self-made swing at Rayer Bazar

Figure 1.2: Children from middle and high income group playing different games in a public playground, Dhanmondi

Figure 1.3: Street and slum children plying 'Carom' at a drop-in-centre, Rayer Bazar

Figure 1.4: A children's amusement park 'Wonder Land' at Gulshan

It is now a reality that Dhaka's open spaces and parks are gradually disappearing from its landscape. As a consequence, the inhabitants of Dhaka city are deprived of outdoor recreation facilities. Although concerned city authorities provided some public playgrounds and parks, they are in most cases used by adults and male and remain unused and inaccessible for the children due to the lack of security, adequate facilities and services to fulfill the play and recreation needs of children. Brief overviews of land use act and legislative measures have been enacted for Dhaka city are given below:

1959 Master Plan of Dhaka City: A total area of 4 acres per 1,000 people was proposed according to the Dhaka Master Plan 1959. Of these 2 acres were recommended in the form of park and 2 acres for open space. The Master Plan (1959) recommended 1,184 acres of open spaces of which 291 acres were shown as existing space and 893 as proposed open spaces.

A study conducted by Nabi (1978) suggested the following space requirement and sizes of open spaces for outdoor recreation of Dhaka city:

Table 1.2: Recommended area and size of open spaces for Dhaka city

Open Space	*Area*	*Area/1,000 population*	*Size (Standard)*	*Size (Maximum)*	*Size (Minimum)*
Play lot	50 sq.ft./child	0.5 acres	5,000 sq.ft.	-	2,500 sq.ft.
Play ground	100 sq.ft./child (6-14 years age)	1.5 acres	3 acres	5 acres	2 acres
Play field	600 sq.ft./person (15+)	1.5 acres	10 acres	20 acres	-
Local Park	300 sq.ft./ person	2 acres	-	50 acres	5 acres
City Park	-	0.5 acres	100 acres	-	30 acres

(***Source: Nabi, 1978)***

Considering the existing provision of parks and public playgrounds in cities of Bangladesh which remains at 1.3 acres and 0.5 acres per 1,000 persons, Hamid (2001) suggested 2 acres per 1,000 population which is similar to that of Indian cities (Table 1.4).

Dhaka Metropolitan Development Planning (DMDP) Project, 1995: The Dhaka Metropolitan Development Planning (DMDP) project comprises two major policies or guidelines for the provision of recreational open space for Dhaka city. These are as follows:

- **Augmenting the open space:** The Metropolitan Authority would seek to augment the city's existing stock of major recreational facilities by means of exploiting the resource of vacant and /or under-utilized government land within the established urban areas.
- **Securing future open space:** the Metropolitan Planning Authority should identify and secure sites for major recreational use in the DMDP structure plan's priority for newly developed areas, particularly Dhaka–Narayanganj-Damra (DND) triangle and Harirampur (north of Mirpur).

Dhaka Metropolitan Building Construction Rules, 2008: Any guidelines or policy related to children's play space is non-existent in this important building construction rules as all buildings in Dhaka city have to adhere to these guidelines. It is important to state that the majority of residential buildings in Dhaka city is for multiple occupancy; apartment building. Regarding community space, there is a guideline to keep four percent of the residential building area where the floor area of the building is more than 3,000 sq. metres. Regarding the open space, it is mentioned that residential plots with

more than 1,300 sq. metres plot size should keep at least 10% percent of the plot area as open space (Bangladesh Gazette, 2008).

Private Sector Residential Land Development Rules 2004: This Rule gives general guidelines for the private real state agencies about the children's play areas. It says that in order to make the environment of the private residential areas healthy and entertaining, space should be allocated on the basis of population. But this document lacks the specific space allocation per family/children; as a result there is no controlling mechanism for the planning approval authority to keep the provision of space (Bangladesh Gazette, 2004).

Playgrounds, Open Space, Park and Natural Water Bodies Protection Act of all Municipalities of Metropolitan, Divisional Cities and District Towns (Act number 36, 2000): Under the Act, the nature of land use of all playgrounds, open spaces, parks and natural water bodies of municipality areas is protected and cannot be changed under any circumstances. The Act also protects against any sort of commercial use of these spaces and also mentions about the protection against tree cutting which can affect the basic nature of these places (Bangladesh Gazette, 2000). There are a few organizations working to safeguard these parks and playgrounds from encroachment. The Bangladesh Paribesh Andolon (BAPA) is the most prominent among them. It works for the protection of playgrounds and parks in Dhaka city. This activist group comprises renowned social workers, architects, planners, environmental activist and protects any encroachment of these outdoor play spaces. They are also very vocal against any illegal use and deviation of land-use of playgrounds and open spaces and take legal measures against the government in opposing such action. This activist group also has a plan to create awareness at the community level so that the community can protest and be vocal against any encroachment of these play spaces.

The recommended standards for different types of playgrounds and playfields for different cities vary considerably. In Britain, the National Playing Field Association (NPFA) recommended a standard for the open space of about 10 acres per 1000 population, including school playgrounds, public and private playfields and parks. In the United States, the National Recreation Association advocates for neighbourhood parks and recreation areas of 10 acres per 1,000 persons and the minimum area

recommended is 5 acres per 1,000 persons (Siddiqui, 1990). The recommended standards of different cities are given below:

Table 1.3: Open space recommended by various organizations for different cities

City	Type of open space	Area	Population Served
Indian Cities	Public Play Field	1.5 acres	1,000
	Parks	2 acres	1,000
Iraqi Cities	School Playground	0.8 acres	1,000
Pakistani Cities	Parks and Playfields	1.3 acres	1,000
Greater London	Schools	3 acres	1,000
	Parks	1 acre	1,000
	Play fields	6 acres	1,000
Singapore	Open space	2.5 acres	1,000

(Source: Hamid, 2002 and Keeble, 1969)

However, Keeble (1969) expressed his concern for setting standards by allocating space as it is difficult to translate the standards to the actual number of children being served as different games need different space standards and numbers of players. He cited the example of four people who have a game of tennis in a total area of about 780 square yards or 195 square yards per person, but 22 people, require about 15,000 square yards for cricket, about 680 square yards per person. He also noted that there are some seasonal games such as badminton which many people enjoy playing in winter. In this respect, he suggested identifying the proportion of population for different games at different times and the spaces required for that before allocating a space standard for the community. Keeble (1969) also suggested having playgrounds and parks mingled in one space to have greater flexibility in the use of land. For example, in the evenings, the playgrounds can be used for exercising, flying kites, etc. In this way concentration of playgrounds can be reduced and a much greater feeling of spaciousness is produced, particularly where there is a scarcity of open space. The Indian Town Planning Institute recommended the following standard for the open space within the context of physical planning:

Table 1.4: Standards for open space recommended by Indian Town Planning Institute

Type of Open Space	Area	Population Served
Play lot	2,000- 5,000 sq.ft	100-200 families
Neighbourhood Playground	1 acre	2,000 population
Play field	12-20 acres	4 to 5 neighbourhood
Park	2.5 acre	1,000 population

(Source: Hamid, 2002)

In Europe, there was an increasing recognition about the children's right to play and the government has responded positively through the establishment of a national agency with responsibility for increasing public awareness and understanding of the importance of play in a child's development.

1.3 Rationale of the Study

The urban world of the 21st century is an extremely young world. Youngsters less than 19 years account for over 48 per cent of the population in Delhi and Mexico City, while in Manila, Jakarta and Bogota; they make up over 50 percent. Yet it is the young ones who in many ways are most profoundly affected by the pressures and hazards of urbanization (UNICEF and UNDP, 2000). Like other developing countries, Bangladesh has a large share of child population. According to 1996 data, urban children below 19 years constitute about 43 percent of the population (BBS, 2002). In general, children have not been seen as a major component of society. Play and recreation policies are formulated with adults in mind, standards are set based on adult variables, and programmes established with attention given first to adult concerns and convenience (Lobo and Olson, 2000). Although children's needs and perceptions are not homogenous, a child will have a different perspective or mental view of events from adults due to their different psychological development, level of socialization and life experience (Erikson, 1994). There is a danger in holding on to an adult-led, pre-determined agenda because children's needs might be overlooked rather than addressed. It is, therefore, important to understand children's perceptions and needs with respect to outdoor play and recreation. However, developing the skills required to discover a child's real needs takes practice and expertise (Freeman, 1999).

Due to the lack of evidence-based data or research work on the existing playgrounds and parks and its relationship with child development, no concrete step is taken by policy makers and planners to safeguard the interest of the children through the enforcement of the legislative and policy actions. Most of the current curricula of the professional bodies do not take into account perspectives of children while planning and designing play and recreation facilities (Hart, 2002). Past studies indicate that there is a considerable gap in adult understanding of children's use of and attitude towards landscape features. Research in the UK on the dangers children face within and outside the home shows

that the lack of understanding concerning children's relationship with natural elements poses a serious restriction on the opportunities for children to explore different places (Roe, 2006).

Provision for play and recreation is not a priority for most municipalities in Bangladesh (Kabir, 2004). In the context of developing countries, where there are high levels of poverty and a desperate need for other basic services and amenities like health, education and housing, investment in play may appear to be a misuse of resources. In a poor neighbourhood, children's needs for play are high on their list of concerns and for their development (Bartlett *et al.,* 1999). Many policy makers do not feel that play is critical for children's development so it is seen as a low priority in the context of real hardships of urban life in many developing countries (Bartlett, 1999). The present condition of Dhaka city indicates that its community facilities are severely inadequate with respect to its total population of 12,623,000 in the Dhaka Metropolitan Development Plan Area/RAJUK Area (Islam and Shafi, 2008).

There is no coordination between Dhaka City Corporation (DCC) and City Development Authority (RAJUK) responsible for the development and maintenance of outdoor play and recreation facilities in Dhaka city (Siddiqui, 1990). Various socio-economic factors, such as crime, crowding and lack of public transport facilities have restricted the people living in Dhaka from using the existing outdoor recreation facilities (Biswas, 2002). In Dhaka city, public recreational facilities like playgrounds, parks, theatres, amusement parks for children etc. are inadequate in number, not appropriately located and do not serve people of all income levels (Siddiqui, 1990; Biswas, 2002; Kabir, 2004). The city is facing a serious deficiency of outdoor play and recreation facilities throughout Dhaka. There are few amusement parks but affordable for the high-income groups only (Kabir, 2004). This research will look into underlying factors and issues related to the existing outdoor play and recreation provisions and provide planning and institutional arrangements for the newly developed as well as for the existing outdoor play and recreation facilities for Dhaka city. This research will add knowledge and understanding about the importance of play and outdoor recreation for children irrespective of socio-economic groups, age and gender.

The Constitution of Bangladesh guarantees equal rights to all citizens, but gender discrimination is widespread in all spheres and at all levels. Girls often have reduced access to health, nutrition and education which cause a higher death rate among girls than boys. Girls from poor families are required to work in the home. There are several reasons why parents are reluctant to allow their daughters outside. Many girls are expected to take care of their siblings; parents fear for daughters' safety, as chastity and the reputation of unmarried girls are crucial factors that determine her value in the eyes of potential husband and in-laws (ADB, 2001). Another obstacle for girls' play is negligence in identifying girls' play needs – girls' play is often viewed as playful preparation for motherhood. As a result, there has yet to be a serious attempt to fulfill girls' play needs in terms of play space design and play equipment (Gagen, 2000).

Many government organizations and development agencies do not value community based research with children. It is very important to include open-ended qualitative research to understand the actual needs of the children. Chawla (2002b) stressed the issue that adults who are supposed to facilitate children's participation need to begin by understanding how children are already involved in their everyday lives and settings first.

In the above backdrop, the present research is designed from a realization that policy makers, urban planners, architects, environmentalists, and most importantly children and parents of Dhaka city are concerned about the rapidly disappearing outdoor play and recreational facilities in this city but there is absence of comprehensive research which can give a clear scenario regarding children's perceptions and their needs on the existing condition and most importantly the benefits of children's participation in the planning and design of outdoor play and recreational facilities. Also no comprehensive study has yet been done exclusively for and with the children regarding their perceptions and views on play and recreation in Dhaka city. There are studies conducted by Hossain (2004), Biswas (2002), Islam *et al.,* (2002) and Siddiqui (1990) on problems, hardware facilities, management, and maintenance aspects of open space, parks and playgrounds etc. None of these works cover all the playgrounds, parks and amusement parks of the entire Dhaka Metropolitan Area nor have those studies made an attempt to investigate children's perceptions about these facilities and their desires. In order to come up with comprehensive and sustainable solutions to address the problems of inaccessibility and

equity of distribution of outdoor play and recreational facilities research in Dhaka city needs to be carried out.

1.4 Knowledge Gaps

It is quite evident from the literature review that children's outdoor play and recreation aspects have many cross-cutting issues and there are significant knowledge gaps in the literature dealing with these aspects. No attempt has been made so far for Dhaka city to analyze each of these issues and then integrate them in a common framework to assist the responsible agencies to take action in a comprehensive way. The following are the gaps identified after a thorough review of the existing literature:

Inadequate research on outdoor play and recreation needs of children from different socio-economic conditions, ages and sexes

There are significant knowledge gaps in the literature dealing with children from different socio-economic backgrounds. Studies have been conducted to compare children's play and recreation needs in terms of ethnic background (Child, 1983) or compare two areas with different attributes (Siddiqui, 1990) in a city. There is little research that explicitly compares the lives of children from different socio-economic background. A research conducted by Sutton (2008) in the UK compared only two socio-economic groups of children in relation to related their perceptions on play and recreation. To date there has been no comprehensive study conducted to cover all the major segments of children living in planned, unplanned, spontaneous, slums and streets in Dhaka city. There is a prevailing perception of the researchers that children's needs are the same irrespective of the socio-economic background. The researcher tried to include views of children from the four major socio-economic backgrounds; street children; slum children; children from middle income group and; children from high income group. This research has considered these four groups as primary target groups.

There is no significant research in Dhaka city that address the play and recreational needs for the younger children (5 to 12 years) and the adolescent group (13-18 years). Although the study conducted by Islam *et al.,* (2002) suggested considering age-wise play and recreation facilities for Dhaka city, no attempt has so far been made to investigate this aspect. This research will address children of these two age groups-

younger children and adolescents and identify their needs and preferences for the outdoor play and recreation provisions.

Although there are some studies to understand girls' needs about their play and recreation, recreation planners often admit that they are not sure how to address the needs and preferences of girls. Even in New York City, there has been no independent analysis of the play opportunities for girls (Hart, 2002). This research makes an effort to consult with the girls also to understand their needs, preferences and constraints on use of the outdoor play and recreation facilities. As Culp mentioned, "*Historically, much of the research conducted in leisure and recreation studies has ignored experiential differences between men and women."* (Culp, 1998, p. 357).

Absence of children's perception study in relation to outdoor play and recreation needs

The concept of children's participation in the design of play and recreation facilities is not only new; it is also non-existent in most of the countries, particularly in a country like Bangladesh, where social exclusion of the poor children is a prevailing factor. There are significant knowledge gaps in the understanding of children's perceptions on outdoor play and recreation. In the recent past, there has been some research conducted to understand children's perceptions about their living space and city planning (Spencer and Blades, 2006; Gharahbeiglu, 2007; and Ahmed and Sohail, 2005), but no research work to know children's views, their desires, imagination, dreams etc. on outdoor play and recreation provisions of Dhaka city. Most of the research conducted so far has identified the needs of children for outdoor play and recreation from a mainly adult perspective without recognizing that the issue of play and recreation should be viewed through children's eyes. Here the researcher has tried to understand children's' views and then made an attempt to integrate these aspects with the design and policy aspects. This will contribute in the world body of knowledge.

No exercise to measure the accessibility for the play facilities in Dhaka city

Although, there are some studies that have taken account of some form of spatial perspective (Biswas, 2002; Hossain, 2004; Siddiqui, 1990), in most cases they do not adequately address the spatial distribution of playgrounds and parks in Dhaka city. Assessment of accessibility in terms of distance and road network analysis has been done under this research. There was previously no such analysis conducted for Dhaka

city. This will help the planners to allocate the outdoor play and recreation spaces considering the accessibility and equity to the children of different socio-economic groups of Dhaka city.

Absence of planning guidelines according to age, gender and socio-economic background of children of Dhaka city

There are no planning guidelines that take into consideration the age of the children. Existing playgrounds and parks do not take into account age-appropriate play facilities. Also no consideration was ever been given to the provision of separate play facilities for boys and girls and very little to enable access for poor children to amusement parks. As a result poor children cannot enjoy the play and recreation facilities in amusement parks. This research will look at all the factors associated with age, gender and socio-economic groups related to planning of outdoor play and recreation facilities in Dhaka city.

Absence of appropriate institutional arrangement for the development of play and recreation provision in Dhaka city

Consequent to the lack of literature on the integrated approach to the children's outdoor play and recreation, there was no institutional arrangement for addressing this issue in a holistic way. The research will give a broad framework for the planning, design and implementation of the outdoor play and recreational facilities based on the research results. The research will try to understand these facilities in broad contextual aspects related to social development, child development, planning and designing of outdoor play and recreational facilities for Dhaka city and in turn for other cities in Bangladesh and other Asian countries.

1.5 Research Objectives and Questions

1.5.1 Research Objectives

The broad research objective is to understand children's perception, needs and priorities about the children's outdoor play and recreation provision in Dhaka city and to give new directions and guidelines for the development of child friendly strategies and policies for children's outdoor play and recreation needs for Dhaka city. The main objectives of the research are to:

i. Identify children's perceptions and needs regarding the outdoor play and recreation provisions in Dhaka city;
ii. Assess the existing condition of the outdoor play and recreation provisions in terms of physical condition of the facilities, use pattern and accessibility for children of different socio-economic condition of Dhaka city;
iii. Identify factors and issues regarding children's outdoor play and recreation provision planning; and
iv. Formulate appropriate planning guidelines and institutional arrangements for play and recreation provision for different groups of children living in Dhaka city.

1.5.2 Research Questions

Research Question: What are the factors and issues related to children's outdoor play and recreation from children's perceptions and their needs of different socio-economic groups, gender and age and their implications in the planning of play and recreation provision of Dhaka city?

Sub-question 1: What are the perceptions of children about the outdoor play and recreation provisions of Dhaka city irrespective of socio-economic background, gender and age and their implications and how are they reflected in the existing provisions provided by adults?

i. How do children of different socio-economic groups, boys and girls, young and adolescents spend their leisure time in Dhaka city?
ii. How do children of different socio-economic groups, boys and girls, young and adolescents of Dhaka city want to spend their leisure time?
iii. How do children of different socio-economic groups, boys and girls, young and adolescents of Dhaka city imagine the best way to spend their leisure or for recreation?

Sub-question 2: What are the profiles, views of children using the existing play and recreation facilities in Dhaka city?

i. What are the children's views and their implications on the existing conditions, design and policy of outdoor play and recreation provisions?
ii. What are the physical and socio-economic profiles of park, playground and amusement park users (children) of Dhaka city?
iii. What are the children's views and satisfaction levels related to physical, environment and maintenance of these outdoor play and recreation facilities in Dhaka city?
iv. What are the recommendations made by the children about improvements related to type, size and other aspects of parks, playgrounds and amusement parks in Dhaka city?
v. What are the parents' views on the outdoor play and recreation provisions in Dhaka city?
vi. What are the professionals' views on the outdoor play and recreation provisions in Dhaka city?

Sub-questions 3: How accessible are the existing outdoor play and recreation facilities (designed by adults) to the children of Dhaka city in general?

i. What is the level of accessibility of existing outdoor play and recreation facilities to children of Dhaka city?
ii. What are the barriers for the children to attain accessibility of outdoor play and recreation facilities in Dhaka city?
iii. What are the criteria that should be considered to make the outdoor play and recreation facilities more accessible to children of Dhaka city?

Sub-question 4: What are the factors and key policy issues for children's outdoor play and recreation provisions in Dhaka city?

i. What are the factors for children's play and recreation provisions planning related to age group?
ii. What are the factors for children's play and recreation provisions planning related to gender?
iii. What are the factors for children's play and recreation provisions planning related to different socio-economic groups of Dhaka city?
iv. What are the common factors related to children's play and recreation provisions planning?

v. What are the policy issues for planning of children's play and recreation provision planning in Dhaka city?

Sub-question 5: What are the planning guidelines and institutional arrangements for the children of Dhaka city?

i. What are the planning guidelines for children of Dhaka city according to the age, gender and different socio-economic conditions?

ii. What should be the institutional arrangement for proper planning and management of children's play and recreation provisions for Dhaka city?

1.5.3 Research Framework

The research framework follows a clear statement about the objectives of the research, which is expressed in terms of hypothesis, sub-hypothesis, research questions, tools used and the source of information. The research framework including the research questions, methodology are shown in tabular form in Table 1.5.

Table 1.5: Research framework

Research Questions/ Focus Issue	Research Questions/Major Information Required	Methodology/Tools	Source of Information
1. What are the perceptions of children about the play and recreation provisions of Dhaka city irrespective of socio-economic background, gender and age and their implications and how they reflect in the existing provisions provided by adults?	**1.1 How do children of different socio-Economic groups, boys and girls, young and adolescents spend their leisure time in Dhaka city?** **1.2 How do the children of Dhaka city want to spend their leisure time?** **1.3 How do you imagine the best way to spend the leisure or for recreation?**	**Focus Group Discussion (FGD) and In-depth interviews with children of different socio-economic children, younger children & adolescents and boys & girls**	**Children of four socio-economic groups such as :** **Street children.** **Children living in Slums.** **Children from middle income group.** **Children from high income group.** **Younger children & adolescents.** **Boys & girls.**
2. What are the profiles, views and recommendations of children using the existing play and recreation facilities in Dhaka city?	**2.1 What are the children's views and their implications on the existing conditions, design and policy of outdoor play and recreation provisions?** **2.2 What is the socio-economic profile of the playground, park and amusement park users (children) of Dhaka city?** **2.3 What are the children's views and satisfaction level on physical, environment and maintenance of outdoor play and recreation facilities in Dhaka city?**	**Structured pre-coded questionnaire survey.**	**Playground, park and amusement park users (children of 5-18 years age group) of Dhaka city.** **Semi-structured interviews with parents of four socio-economic groups (Street children, children living in Slums, children from middle income group; and**

	2.4 What are the recommendations made by children on improvements related to type, size & other aspects of parks, playgrounds and amusement parks in Dhaka city? 2.5 What are the parents' views on the outdoor play and recreation facilities in Dhaka city? 2.6 What are the professionals' views regarding the proper planning and management of outdoor play and recreation provisions in Dhaka city?	Semi-structured questionnaire survey with parents. In-depth interviews with representatives from different relevant organizations.	children from high income group). Representatives from Dhaka City Corporation, RAJUK, Urban Development Directorate (UDD), UNICEF, Institute of Architects, Bangladesh (IAB) etc.
3. How accessible are the existing outdoor play and recreation facilities (designed by adults) to the children of Dhaka city in general?	3.1 What is the level of existing accessibility of outdoor play and recreation facilities to children of Dhaka city? 3.2 What are the barriers for children to attain accessibility of outdoor play and recreation facilities in Dhaka city? 3.3 What are the criteria that should be considered to make the outdoor play and recreation facilities more accessible to children of Dhaka city?	Assessment of accessibility of the parks and playgrounds by using Centroid Radii and Road Network analysis. In-depth Interviews and FGD with children, parents, professionals and analysis of news paper reports on the existing condition.	Maps of the play and recreational facilities. Children's perception study. Interview with the playground, park and amusement park users. Interview with the parents and professionals.
4. What are the factors and key policy issues for children's outdoor play and recreation provisions in Dhaka city?	4.1 What are the factors for children's play and recreation provisions planning related to age group? 4.2 What are the factors for children's play and recreation provisions planning related to gender? 4.3 What are the factors for children's play and recreation provisions planning related to different socio-economic groups of Dhaka city? 4.4 What are the common factors related to children's play and recreation provisions planning? 4.5 What are the policy issues for planning of children's play and recreation provision planning in Dhaka city?	FGD and In-depth interviews with children, users' (children) perspective, assessment of accessibility, views of parents and policy makers.	Children's perception study. Interview with the playground, park and amusement park users. Interview with the parents and professionals.
5. What are the planning guidelines and institutional arrangements for the children of Dhaka city?	5.1 What are the planning guidelines for children of Dhaka city according to the age, gender and different socio-economic conditions? 5.2 What should be the institutional arrangement for proper planning and management of children's play and recreation provision for Dhaka city?	FGD and In-depth interviews with children, users' (children) perspective, assessment of accessibility, views of parents and policy makers.	Children's perception study. Interview with the playground, park and amusement park users. Interview with the parents and professionals.

1.6 Expected Outcomes

This research is expected to contribute to the areas of play and recreation provisions in the context of child development, child rights, accessibility, social equity, spatial design and urban infrastructure planning in the context of Dhaka city. It is also expected to contribute to the development of play and recreation policy for all the socio-economic groups, both for boys and girls and for young children and adolescents living in Dhaka city. In addition it will provide planning and institutional arrangements for implementation of the children's outdoor play and recreation provisions in Dhaka city. The findings of the research will add to the body of knowledge on children's perceptions for play and recreation provisions in Dhaka city. This research will also give a comprehensive background information and strategic direction to the appropriate policy on recreation for the children of Dhaka city from different socio-economic backgrounds.

1.7 Research Audience

The research is focused on the children's and adults' perspective of children's play and recreation aspects and is directly linked with the child development; therefore the principal audiences for the research are children, parents and professionals involved in planning of play and recreation provision of Dhaka city. The other important audiences of the research are academics, social researchers, urban designers, planners, architects and outdoor play and leisure experts, NGOs, child development researchers, UNICEF, UNESCO, Plan International and other agencies working in the field of child development. The outcome of the thesis will also be useful particularly to the concerned government agencies, e.g., Ministry of Women and Children Affairs, Capital Development Authority (RAJUK), Dhaka City Corporation (DCC)), city planners, architects, child development experts, sports, social, infrastructure development agencies and most importantly local government agencies.

1.8 Operational Definition of Terms

- **Children:** Children are defined as infant and children of all ages, up to their 18th birthday (BHIS, 2005; Bartlett *et al.,* 1999). .

- **Play:** A widely accepted definition of play in England is that play is a set of behaviours freely chosen, personally directed, and intrinsically motivated following the children's own ideas and interests in their own way, and for their own reasons (Wilson, 2009; DCMS, 2004). The word play describes a range of physical or mental leisure activities that are undertaken purely for enjoyment or amusement and can be undertaken by individuals or groups of children spontaneously or as part of a planned activity (UNICEF, 2004).
- **Recreation:** Recreation is any pursuit other than those associated with work which a person undertakes freely for the purposes of relaxation during leisure time. Recreation includes games, sports, camping, dancing, picnics, discussion groups, drama, music, craft, arts, and other activities of personal choice. Recreation consists of active participation, or quiet relaxation, listening, or watching and can be organized or unorganized and can be enjoyed alone or in a group, can be passive or active (Siddiqui, 1990; Biswas, 2002; Kabir, 2004). Parks can offer a wide range of recreation activities ranging from sedentary to vigorous physical activities (Floyed *et al.,* 2008b).
- **Leisure:** Leisure behaviour comprises a wide variety of activities like to be close to nature, to get away from responsibilities of everyday life, watching TV, spending time on a hobby, taking a nap, socializing, visiting friends, playing games, walking or hiking, partying, gossiping, spending time in a quiet place, shopping etc. (Crandall, 1980). Leisure plays a dynamic role in the lives of individuals and the primary leisure time activities are psychological, educational, social, relaxation, physiological and aesthetic (Beard and Ragheb, 1980).
- **Sports:** Play activities with some principles and accessories and generally supervised by adults (Child, 1983).
- **Play facilities:** Playground, park, amusement park, stadium etc. where people play different types of games or have arrangements for outdoor recreation.
- **Play accessories**: Goal posts, nets, sand, cricket pitch etc. Play accessories means necessary arrangements to create the proper play environment. Play accessories are required to play games properly.
- **Play tools**: Cricket bat, ball, racket, skipping rope, toy car etc. Play tools are the necessary equipment to play with.
- **Play provisions:** Play provisions cover the play facilities, accessories, play tools together with different play opportunities.

- **Perceptions:** Perception means views with internal feelings, it tells how events/objects are observed and interpreted. Perception gives the inner meaning of the aspect. Children's perception can be identified by qualitative survey methods.
- **Views:** Opinion means opinion with no internal feelings. It gives the opinion of an observer from a distance.

1.9 Delimitation of Scope

The research excludes three categories of children in Dhaka city because of the lack of access to information and practical problem to involve them in the research process. These groups are children aged less than five years, domestic helps and children with disabilities.

Children under five years are not considered in the research as special skills and techniques are needed to conduct research with this group. Lack of access and sensitivity are the two hindering factors to get information about domestic helps. Although a study revealed that about 300,000 children work as domestic helps in Dhaka city most of which are girls (Plan International, 2005). Children with disabilities rarely get to engage in free play or unstructured leisure and it is very difficult to involve these groups. It is also difficult to access disabled children who live in institutions. Considering these factors the researcher limited the scope to children from five to eighteen years from four major socio-economic groups, high income, middle income brackets and children living in slums and in the streets of Dhaka city.

The main focus of the research is mainly outdoor play and recreational facilities of Dhaka city. The indoor play and recreation activities particularly computer, video games etc. are excluded from the scope of this research. As the "drop-in-centre" is the only available place for play and recreation activities to the street and slum children, it is included in the research. At present, there are about twenty five "drop-in-centres" established by NGOs in Dhaka city.

The scope of the research does not cover the school playgrounds although many school playgrounds are being used by children living in the surrounding community and

neighbourhoods. The reason for the school based play and recreation is that most of the children living in streets and slums do not have access to formal education in Dhaka city (Plan International, 2005).

In Dhaka city, there are different types of open spaces, which serve the local and nieghbourhood areas, such as play lots, playgrounds, playfields, parks, amusement parks and incidental open spaces. This research considers primarily the major play areas for the children of Dhaka city like playgrounds, parks and amusement parks. However, for mapping, physical investigations were conducted in all the major open spaces for play and recreation in Dhaka city.

1.10 Thesis Organization

Chapter 1 presents the introduction of the research area with background, and focuses on the importance of play and recreation for children's development. The chapter explains the context and rationale of the research for Dhaka city. The research objectives, expected outcomes, research audience, operational definition of terms used in the study, limitations, primary target group, delimitation of scope and thesis organization are also presented in this chapter. It outlines the knowledge gaps related to children's outdoor play and recreation for Dhaka city. Finally, the research questions and framework are described in the chapter.

Chapter 2 reviews literature on children's outdoor play and recreation. At the beginning, it sets out to define theories and history of children's outdoor play. The chapter identifies and reviews children's participation and different initiatives on neighbourhood development, play initiatives involving children all over the world. Then it identifies the relationship between play and child development and the benefits and constraints of play and recreation for children. This chapter gives a brief description of the factors related to children's preferences and policy on children's outdoor play and recreation available from literature search.

Chapter 3 discuses the overall research design, different methods and techniques available and those used in the research. It discusses the rationale for choosing certain methods and gives an overview of the research design and process followed in the

research. Finally, it gives a description of the research methods including an explanation about research with the children and ethics of working with children, with special emphasis on the issues related to confidentiality and anonymity. The chapter also explains the sample size considered in the research with justification.

Chapter 4 takes into cognizance children's views and perceptions about their play and recreation aspects. This chapter gives the overview of the children's perception on different issues including their desires, needs and imagination of the best ways to spend the leisure time. This chapter gives children's in-depth views about the discussion questions with the four major socio-economic groups of children, girls and boys and young children and adolescents living in Dhaka city, which in turn helped to identify the factors and issues related to the play and recreation provision for Dhaka city. Finally, through the analysis of the children's perceptions on the provision of play and recreation facilities are identified and analysed for all the subgroups of the children.

Chapter 5 presents the existing condition of play and recreation facilities in Dhaka city from children user's point of view. Children's views on the physical, environmental, maintenance conditions, their preferences etc. are presented. This chapter also narrates children's recommendations on the type, size and other design aspects.

The pattern, accessibility and equity for the different socio-economic groups of children in Dhaka city are described in Chapter 6. This chapter also gives an analytical description of the factors affecting children's accessibility to outdoor play and recreation provisions.

The Chapter 7 presents the parents' and professionals' views on planning and management and key issues related to children's outdoor play and recreation.

The combined analysis of children's perception study, users' views, accessibility and equity analysis and professionals' views are presented in Chapter 8. Key research findings and discussions related to factors and issues for children's outdoor play and recreation aspects are discussed and explained in this chapter. Finally, this chapter provides an institutional arrangement for the planning and implementation of the children's play and recreation provisions for Dhaka city.

Chapter 9 presents the matrix developed for the sixteen subgroups (young children, adolescent children, boys and girls and four socio-economic groups) derived from children's perception study, user's perspective, through the assessment of accessibility and from parents and professional's views on the research subject.

The concluding Chapter 10 gives an overview of the research, key research findings, recommendations and an explanation about the limitations and the future areas to be considered for future research works. It also explains the key contribution of the research.

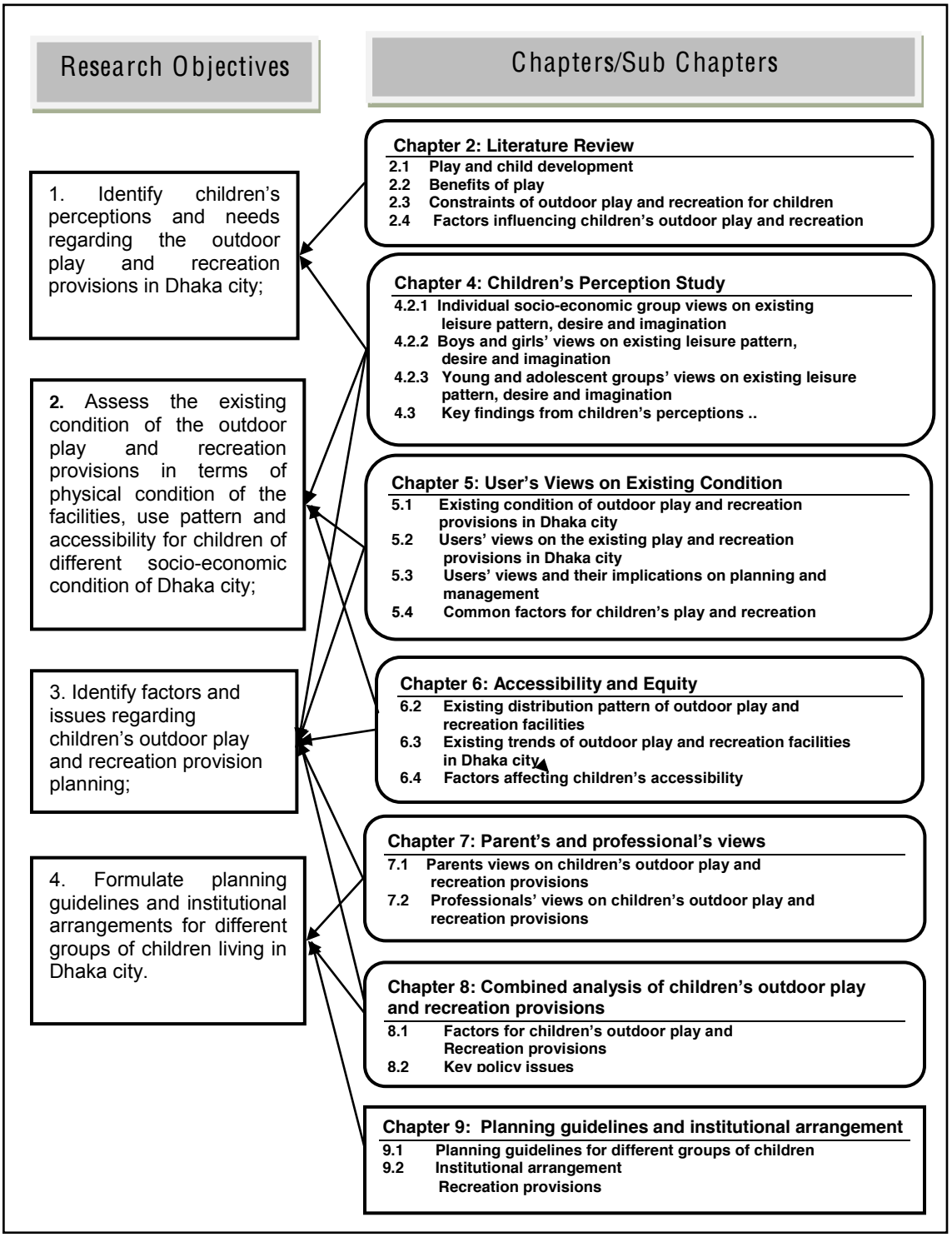

Figure 1.5: Relationship of research objectives and related chapters

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter provides a foundation of the research by gathering information and the body of knowledge from others works all around the world. First, it gives an introduction of children's outdoor play and recreation including history and theories. It sets out to define child participation and different initiatives on neighbourhood environment development and play initiatives involving children all over the world. Then, It identifies the relationship between play and child development by identifying its benefits and constraints from other literature.

This chapter also helps to explore and identify factors related to children's preferences and policy issues concerning children's play and recreation provisions. These factors and issues provide the foundation for further study according to different socio-economic background, age and gender of the children living in the context of Dhaka city.

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2.1 Play and Child Development

Over the last two decades the issue of children's play in relation to child development has been narrated by a number of researchers with varied backgrounds and experiences ranging from child development specialists, environmental psychologists, educationalists and planners to landscape architects (Hughes 1990; Barnett, 1990: Bartlett, 1999; Chawla, 2002a; Hart, 2002). The definition of play is also influenced by the background of the researchers. Chawla (2001), an environmental psychologist, described how children's inventiveness and self-organizing intentions influence their own play setting in their own community (UNESCO, n.d.). Hart, a Professor of Environment and Psychology, defines children's play as fundamental to all domains of physical, intellectual, social, and emotional wellbeing of children (Hart, 2002). Barnett (1999), a member of the children's Environmental Research Group, New York, noted that through play, children learn communication with adults, develop community integrity, develop the sense of control over difficult circumstances and also learn to become active participants in the community. Hughes (1990), a chemist, teacher and a great advocate of adventure playgrounds, defines play as central to the aesthetic development of children. Among these, Child (1983) defined play pragmatically as those behaviours of children which occur in a play setting. In her paper "Play and culture" she describes the different types of play for children. Table 2.1 gives a description of different types of play indicators.

Table 2.1: Types of play and its indicators

Types of Play	Description	Indicators Variables	Description
Tactile	Play with raw materials	Sand	Play with sand
Artistic	Play with artistic materials	Paint	Play with paint
Imaginative	"Pretend Play", i.e., the pretend use of people and objects	Person-oriented and Object-oriented imaginative play	Dramatic role playing Fantasy use of objects in a way that they are not customarily employed in real life
Physical	All gross motor play which requires the active use and co-ordination of the larger muscles	Unstructured physical play	Physical play without equipment
Constructive	Any activity in which the child purposefully makes something. The creation of an object is viewed as the goal of the activity and not as a by-product of the process of play	Making things	Glueing pieces of paper and cardboard together
Sports	Play activity with some principles and accessories	Playing with football	Playing football and cricket

(***Source: Child, 1983)***

2.1.1 History of play in the West

In Europe, the origin of leisure policy started as a measure to prevent youth and child criminality. During the 19th century, when the industrialization process gained momentum in Europe, many unattended children and adolescents used to spend most of the time in the streets and were involved in begging or other unproductive activities. By the end of the 19th century, reformers in the United States considered playgrounds as the most effective means of drawing migrant children off the street and into a corrective environment. The belief behind this was that by playing in the streets children were in danger of becoming a threat to society (Hart, 1992, 2002). Playgrounds were used as a device for getting children off the street, away from bad influences and under the control of adults. The first playground for children was established in New York in 1892 by the New York Society for Parks and Playgrounds. In 1906, the year after immigration reached a record high in the United States, the Playground Association of America (PAA) was founded. Although many of the local level practices and theories of playground initiatives were taken before 1906, it was not until the PAA was formed that enough momentum was generated to sustain national support for playground management (Gagen, 2000) through training. According to Hall's theory, children experience the primitive phases of human history in sequential order. Children's love of the sand is explained by their latent memory of the primeval mud and their desire to form gangs emerges as they recapitulate the tribal phase of human development. According to the philosophy, if children fail to go through these phases, their development will be corrupted. Several other researchers also viewed play as an important factor in

evolutionary adaptation or recapitulative play where children carrying forward the evolutionary deeds of becoming a human being (Wilson, 2009; Barnett, 1990). With the blessing of the government, in New York, a series of low density playgrounds were built during the 1930s to 1950s. By the 1960s most of the Western cities developed around children's playgrounds and schools (Cranz, 1982 in Spencer and Blades, 2006).

Hall's theory was focused mainly on boys' evolutionary process into a masculine man whereas for girls, play was considered as their preparation for motherhood. In Cambridge, girls were thought to contain within their evolutionary history an instinct to care and remain in home. As a result, girls' experience of public space were severely restricted and activities like basic sewing skills, knitting, and making craft items such as dolls' house, dance, songs and games which have very strong domestic themes were the common recreation activities applied for girls (Gagen, 2000). Paradoxically, girl's outdoor play and recreation needs were ignored in the twenties and girls' play was considered to be contrary to girls' development as mothers.

In the United Kingdom the government believed that the provision of recreation in areas of deprivation promoted a positive way of reducing other forms of social spending e.g., law and order cost of policing, vandalism etc. (Bramham and Henry, 1985). During the early 70s, in Emdrup, Copenhagen, a new kind of play professionals developed called "play workers" who converted the stereotype uninteresting playgrounds to stimulating play settings for the children called adventure playgrounds (Hughes, 1990).

The adventure playgrounds movement started in the West particularly in the industrially advanced nations in Europe, in order to provide a stimulating environment for children in a partnership with children who create their own play spaces with diverse materials with the support from play leaders (Hart, 1992). In USA, the adventure playground movement did not show much success due to a number of reasons, the main one being the budgetary constraints (Hart, 2002). With this very limited budget, most of the cities of USA relied on the summer youth employment programme to provide a small number of play workers. But these play workers were neither sufficient according to the needs, nor could they bring any positive impact in this respect as they had very little training. Also the utilization of available resources was not always in favour of the capacity building which is a key factor for sustainability of these play provisions (Hart, 2002).

In early 1930s the International Association for Child's Right to Play (IPA) was formed in Scandinavia which first recognized specific barriers to children's play. In 1961 IPA was formally established in Denmark with nearly 50 member countries (IPA World, n.d.). A number of child development organizations such as UNESCO, UNICEF, International Play Association (IPA), Children Play Council (CPC) etc. also advocate children's play as a fundamental right of the child. The Children's Play Council (CPC) was established with the aim of raising awareness of the importance of play in children's lives and bringing together research on the importance of play for the policy makers. In this respect in the UK, a series of research works, undertaken to feed the policy related to children's play and the play movement, gained both the technical and financial support from the government and other agencies like "Big Lottery Fund" (Woolley, 2006).

Children's play close to home has also been restricted by traffic. City planners of the world's developing cities have placed excessive importance on motorized vehicles as a means of transportation system, make the streets hazardous for play and open areas are used for parking (Hart, 2002; UNICEF, 2002b). The Home Zones movement first started in the Netherlands in the 1970s is a way of reclaiming local streets from a traditional domination of vehicles in order to create safe environment for the inhabitants through enforcing a reduced speed limit of 10 miles an hour (Home Zones, n.d.). Many countries have successfully transformed the core concept and created their own safe areas which are regarded as a useful mechanism in urban renewal and now appear to have a positive impact on children's use of public open spaces (Woolley, 2006).

As play is considered as the children's own natural expression to the world, it is important to understand concept and benefits and children's participation in physical and social development terms. The next section describes the concept of child participation and some of the initiatives taken by the United Nations and other international organizations related to children's participation in the development sector.

2.1.2 Child Participation

The term "participation" refers to the process of sharing decisions which affect one's life and the life of the community in which one lives. Participation is a fundamental right of

citizenship (Hart, 1992). The importance to include children and youth in planning, design and governance is officially recognized at international level in:

i. **The UN Convention on the Rights of the Child (CRC)** recognizes that young children under eighteen years are entitled to express their views in all matters that concern them. The CRC contains four Articles, out of 54, that relate directly to rights to participation as well as a number of Articles relevant to the quality of the child's living environment. The Articles related to "participation" address children's rights to express their views freely in all matters that affect them (Article 12); freedom of expression and information (Article 14); thoughts, conscience and religion (Article 14) and; association and peaceful assembly (Article 15) (UNICEF, 2002a; Chawla, 2002a).
ii. **The Habitat Agenda** states that special attention is paid to the participation of children and youth in shaping cities, towns and neighbourhoods in order to secure sustainable human settlements (UNHABITAT, n.d.; UNESCO n.d.).
iii. **Agenda 21** of the Earth Summit stresses that children and youth must be involved in participatory processes to create more people-friendly, sustainable environments (The Agenda 21, n.d.).

Research with children can be described as a systematic and scientific search for information which aims to improve our knowledge of children. According to cognitive theories for child development *"Children think differently from adults and there are qualitative differences in the way children of different ages understand the world around them."* (Greig and Taylor, 1998, p.31). It is important to include children when the subject is related to any issue that involves or affects them. It is already well established by many researchers that children have a different perspective from adults, particularly on some issues such as education, play and child abuse which affect children more than they affect adults (Save the Children-UK, 1998). Research on children's preferences on their outdoor play environments shows that if the children had the design skills, their creations would be different from those that most adults design for them (White and Stoeeklin, 1998). Although in many cases children's competence and ability to research is undervalued, but it is now quite evident that children respond and participate with great interest if the adult has a genuine interest in their lives which they can comprehend (Hart, 2002).

For researchers working with children, both research skills and research awareness are needed. To most practitioners, it is the skill of being able to incorporate research into their practice which becomes paramount. Research involving children, whether their involvement is direct or indirect, must be placed into a context. Children are not mere recipients of their environment, but they influence what goes on within their worlds and are active in making the environment what it is. Therefore, as a researcher, irrespective of the professional background and research tradition, it is important that the researcher takes a holistic approach to the study of children (Greig, and Taylor, 1998).

The benefits of child participation in the design of play provision i.e. including children in the urban neighbourhood planning and design, have been described by a number of researchers (Hart, 1992; Bartlett *et al.,* 1999; Auriat *et al.*, 2001) which are as follows:

- Foster the social inclusion of children and youth in the society;
- To be accountable to the diverse needs of young people;
- Create spaces for young people to express their views;
- Encourage young people to engage in shared decision-making with adults; and
- Participation offers young people the chance to develop important decision-making and problem-solving skills (Checkoway *et al.,* 2003).

Increasingly, research shows that young people who feel involved, safe, valued, and connected are less likely to engage in risky behaviours (Cook *et al.,* 2004). The personal health benefits of the meaningful participation of youth have been studied by the Canadian Centre of Excellence for Youth Engagement (2003), which states that participation can mean that young people are less depressed, have higher self-esteem, are more physically active, obtain higher grades in school, and show a greater commitment to their friends, families and communities (Dallape, 1996).

It is important to recognize different forms of participation which is dependent on children's level of involvement and degree of initiative. The concept of meaningful participation implies a perspective that changes according to children's interest, goals, and sense of their own capabilities (Chawla, 2001). Spencer and Blades (2006), lay emphasis on the proactive process of the children's participation in which children, adults, planners and designers and decision makers work together inclusively as partners. White (1996) gives an in-depth view on different forms of participation, e.g.,

nominal participation, instrumental participation, representative participation and transformative participation. Nominal participation is achieved when the target group say they are members of a group but do not attend any meetings. Instrumental participation is observed when there is a need to have inputs in the project in order to get local resources like labour, raw materials in order to make the project cost effective. In representative participation, people take some responsibility and could express their views through formation of groups to ensure sustainability of a project. The idea of real empowerment is realized in the form of transformative participation. Here people get different options, make decisions and take collective action to fight any injustice or obtain any rights. The most widely used model for evaluating efforts to engage children in the decision making is the "Ladder of Participation" developed by Roger A. Hart in 1992 which was adapted from the adult participation model by Arnstien (1969).

In Hart's view "Manipulation" is the lowest rung of the ladder of participation. The most common example of manipulation can be when children are involved for political demonstration without any understanding of the issues. "Decoration" is the second lowest rung of the ladder. In this situation children are asked to take part in a function or in an occasion where their presence is meant for a symbol. The most common example of this type of decorative participation is the presence of children in a rally. In the context of "Tokenism", children are given a voice with a pre-designed set where they have very little choice about the subject and little or no opportunity to formulate their own opinion. One of the examples of "Tokenism" is the children's panel in a conference where smart children are selected for the panel with no efforts to prepare them on the subject matter. In the "Assigned but informed" case, children understand the intention of the project and know who made the decisions and for what reasons. In the category of "Consulted and informed", the project is designed and run by the adults, but children understand the process and their opinions are treated seriously. The sixth rung of the ladder "Adult–initiated shared decision with children" is the true participation. In the "Child-initiated and directed" scenario, children-initiated community projects are the best example. In the process, children initiate and run projects without any direct support from adults. "Child-initiated shared decision with adults" is the best category of children participation. To encourage the highest level of participation adults need to be caring and committed to the particular interest of children. Only the last one is useful at the level of interventions for children since it is at this stage that they are taken seriously at the level of political

decision making. The first three are only manipulative, decorative or token attempts to show children's participation (Nieuwenhuys, 1997).

Children's Participation in Development Initiatives

There have been many efforts all over the world to involve children in the development of their own physical environment. Two of the more far-reaching initiatives in this regard have been the Growing Up in Cities (GUIC) project by UNESCO and the Child Friendly City Initiatives (CFCI) movement by UNICEF.

The **Growing Up in Cities (GUIC**) program was initiated in 1970 by United Nations Educational, Scientific and Cultural Organization (UNESCO) and coordinated by Kevin Lynch, an MIT based urban designer. It provides models for listening to the voices of young people and creating more responsive urban policies and practices (UNESCO, n.d.). The Growing Up in Cities project uses a variety of participatory methods, which include drawings, mapping, interviews, time schedules, photographs, model-building, child-led tours through the community, focus group discussions, role play, visioning, ranking exercises etc. Although the project could draw some attention to the importance of involvement of children, there is a considerable gap between the perception and vision of the urban officials responsible for the development of urban areas and the actual needs and views of children and communities living in the areas. The GUIC programme was never brought to scale due to lack of funding (Child Friendly Cities, n.d.). Although the programme was revived under the leadership of Louise Chawla, the programme was expanded in eight countries (Argentina, Australia, England, India, Norway, Poland, South Africa and USA) under UNESCO's Management of Social Transformation (MOST) programme, some projects of the GUIC programme failed to make results or to influence policies because the decision making processes were not accessible to children. Also in some cases city officials were not very responsive to them (Child Friendly Cities, n.d.). Although there are some good examples of involving young children in the planning process in this programme, but still some uncertainty exists as to how to involve them in making improvements in their neighbourhood (Percy-Smith and Malone, 2001).

The **Child Friendly Cities Initiatives (CFCI)** was launched by the United Nations Children's Fund (UNICEF) in 1996 to involve children in the process through the network of cities (Child Friendly Cities, n.d.) and worked as a focal point for gathering

experiences from different cities and standardizing the CFC methods and techniques for wider dissemination. However, the technical and scientific capacity of the Secretariat to process and standardize methods is still in question. At the implementation level, the country programme of UNICEF has been developed on the basis of situation analysis and assessment of children's needs and children's needs for play seldom appears in the priority list of programme interventions. Also in many cases the child-sensitive indicators of the Child Friendly Cities are formulated and assessed by adults, without or with a very limited involvement of children. For instance, the 24 indicators developed for the CFCI in five cities of Philippines were found to be mostly based on the regular UNICEF's programme interventions like birth registration, nutrition, literacy, water and sanitation etc. (Racelis and Aguirre, 2002). These indicators are set based on children's needs, not according to children's desire or preferences. One of the objectives of the Child Friendly Cities initiative is to create "safe play zones" which are considered as community playgrounds of safe play and recreation areas for children (UNICEF, 2004). Also UNICEF provides special support for creating "Child Friendly Space" particularly for children living in conflict or emergency situations.

Other than CFC and GUIC initiatives, there are some notable experiences of children's participation in the government's resource allocation for children, of which **Children's Participatory Budget Council (CPBC)** in the city of Barra Mansa in Brazil is worth mentioning. The CPBC aims to foster citizenship among children aged between nine and fifteen. This council determines how a proportion of the municipal budget can be spent on children's priorities determined by the council. The project has been established through a municipal law and implemented by the city council under the direct responsibility of the mayor's office. The elected children learn how to represent their peers within a democratic structure, to prioritize on the basis of available resources and then to develop projects within the complex bureaucratic process of city governance. This process is now widely used in Brazil and other cities in Latin America for increasing citizen's involvement in urban governance (Guerra, 2002).

The above mentioned are the few examples where child participation is considered in the physical as well as the social development context. But, lack of a framework or guidelines for children's participation in the community planning process poses a significant obstacle for progress in children's participation in neighbourhood settings.

Matthews (1995) indicates that in practice children remain outsiders with little or no power to influence on decision making. As a result, most environmental planning exercise reflects only adult's views (Matthews, 1995 in Woolley *et al.,* 1999). Also expressed by Percy-Smith and Malone (2001, p.18). "*While there are some examples of good practices in involving children* ***in research*** *and neighbourhood development process, these often remain on the fringe of mainstream development initiatives. As a result, children's views and interests continue to be relatively marginalized in nieghbourhood development, in the everyday practices of local communities, in local government structures and procedures.*"

2.2 Benefits of Play

The benefits of children's play and its impact in children's development have been described by a number of child researchers and development psychologists over the last two decades, which are described in next section.

Physiological: Play is a means to develop physical fitness, stay healthy, control weight, and otherwise promotes overall wellbeing of the child and enhances survival capacity (Beard and Ragheb, 1980). Play is a biological drive and as important to our health as sleep and nutrition (Brown and Vaughan, 2009). Regular physical activity through play builds healthy bones, muscles and joints; helps control body weight; helps reduce fat and blood pressure, and most importantly the emerging problems of child obesity (Woolley, 2006). The US Department of Health and Human Services mentioned that "*The consequence of physical inactivity impact nearly all aspect of human health from obesity and overweight to type 2 diabetes, loss of muscle strength ad joint function, depression and anxiety, colon cancer and cardiovascular diseases*" (Floyd *et al.,* 2008a) In UK, "*across the nation 16% of children aged 2 and 15 have been identified as being obese with a 50% increase in obesity in children during the last 10 years*" (Sproston and Primatesta, 2003 in Woolley, 2006, p.51). Physical recreation helps to stimulate the blood circulation system, increase respiratory capacity, and improve the digestive and nervous systems of people (Hossain, 2004; Crandall, 1980). For a nation, children's play provision in the neighbourhood can provide an effective way of improving public health (Cutts *et al.,* 2009; Woolley, 2006; UNICEF, 2004).

Psychological: Through play, psychological benefits such as a sense of freedom, enjoyment, involvement and intellectual challenges are met (L' Abate, 2009; Beard and Ragheb, 1980).

- **Cognitive development:** Many researchers have now proved that a child's thought processes, both convergent and divergent, are very strongly influenced by playful activities and interactions. Play relates directly to the problem solving ability of a child as play provides a child with the specific skills to solve a variety of problems posed in life's other circumstances (Brown and Vaughan, 2009; Barnett, 1990; UNICEF, n.d.; Vandenberg, 1980).
- **Motor skills:** Through active play children learn to use their bodies and develop their gross and fine motor skills (Moore and Wong, 1997). Bartlett (1999) noted that the data from research in the neuro-psychology and psychopharmacology indicate that distinct changes in the brain occurred due to healthy play and social behavior.

Educational: There is increasing evidence to suggest that free play has a direct and positive impact on children and young people's ability to meet formal education goals (Beard and Ragheb, 1980; Crandall, 1980).

- **Intellectual development:** The intellectual stimulation acquired through play helps children to learn about themselves and their surroundings and provides opportunities for initiative, interaction, creativity and socialization in the formal education system (Brown and Vaughan, 2009). Through play children achieve intellectual developments by working out answers e.g. speed, quantity, concepts, big/little, abstract ideas etc. (Play Ireland, n. d.).
- **Environmental education:** Natural outdoor play environment offers opportunities for children to learn the importance of the environment. Children explore cause and effect and gradually build a knowledge base through play that cannot be taught through structural learning settings (Strife and Downey, 2009; Beard and Ragheb, 1980: IPA World, n.d.; Crandall, 1980). A number of studies found that there is a positive correlation between symbolic play and learning language during the early stage of language acquisition in both normal and language impaired children (Barnett, 1990).
- **Competence and self-assurance:** In children's play, through their manipulation of objects children begin to understand the properties of different substances,

quantity, number and size, the principle of cause and effect. Through play, children acquire a sense of competence and self-assurance necessary for tackling new challenges (Bartlett *et al.,* 1999).

- **Creativity:** Play is a vehicle for the development of creativity and flexibility that are invaluable qualities in human development. Through play, a child acquires creative development by making things, symbols and imagination (Brown and Vaughan, 2009).
- **Altruism:** Play environment gives a right scenario to learn to help others to achieve a common goal (Crandall, 1980).

Social: Play with other children promotes an understanding of social roles and responsibilities which contribute to social interaction and communication, the opportunity to meet friends and the enjoyment of good fellowship (Bartlett *et al.,* 1999; Hughes, 1990; Beard and Ragheb, 1980; Mergen, 1975; Strife and Downey, 2009). Play gives the opportunity to mix with other people and to talk to new and varied people and to build friendships with new people. It also helps children to understand others' views and needs and provides practice in resolving conflict, agreeing on rules and learning from others (Bartlett and *et al.,* 1999). Play is a way of socializing process by which children learn to play as an adult and acquire essential characteristics and ability to solve problems (Brown and Vaulghan 2009; Mergen, 1975).

- **Preserving culture**: Play is a key component in preserving community and culture. Play is a vehicle for children to pass on their culture (Bartlett, 1999: Mergen, 1975).
- **Team spirit among children:** Play gives an environment for children to work as a team and to achieve a common goal for them (Hossain, 2004; Crandall, 1980). Play in natural environment enhances interaction between children (Strife and Downey, 2009).
- **Reduces boredom among adolescents:** Different studies suggested that leisure activities are important to adolescent development as through leisure activities one learns to focus one's attention and allow self-controlled actions rather than other's directed activities. It also gives a chance to change from their daily routine and get away from the responsibilities of their everyday life (Caldwell and Darling, 1999; Crandall, 1980).

- **Enhances the recognition and status:** Play gives an opportunity to children to show others and adults that they could do something with control and authority. The happiness or satisfaction secured from recreation leads to recognition, response and adventure in new experience (Hossain, 2004; Crandall, 1980).
- **Confidence building:** Play gives an environment for seeing the results of their own efforts –self actualization and self improvement by utilizing a variety of skills and talents of children which is not always possible to show in the controlled environment of children's daily life. A study of seventh-grade from United States found that those involved in organized sports reported higher overall self-esteem and were more socially skilled (UNICEF, 2004).
- **Prevents use of drugs and reduces crimes:** A survey conducted in 1997 with 16,000 private high school students of United States revealed that athletes were less likely than non-athletes to have ever smoked cigarettes regularly. The study also found that athletes were also less likely to use marijuana, cocaine, or other drugs (UNICEF, 2004). Play and sports may have an indirect impact on criminal activity by encouraging challenge and adventure, promoting positive use of leisure time, providing role models through coaches, and by giving children a sense of purpose (Strife and Downey, 2009; Hossain, 2004).
- **Relaxation:** Play is necessary for recuperation from work and through play, one could achieves rest, relaxation and relief of the stress generated from work and the strain of life (Beard and Ragheb, 1980; Crandall, 1980).
- **Leisure:** Play enables interaction between children and people of all backgrounds and ages in leisure settings. The major factor behind recreation is the desire of the individual to attain happiness, relaxation and to assure joyful experiences through leisurely activities (Hossain, 2004).
- **Reduces stress**: Play provides relief from the stress and strain of life (Beard and Ragheb, 1980). Studies from different countries have confirmed that physical activity reduced symptoms of stress and inactive children were more often depressed than the active children (Barnett, 1990; Crandall, 1980; Floyd *et al.,* 2008). It has been witnessed in hospital settings and war zones that play is a way for children to gain a sense of control over difficult circumstances (IPA World, n.d.). It gives an opportunity to relax physically and mentally. Also from the psycho-physiological study by Ulrich and Dimberg (1990) revealed that recuperation from stress occurs faster and more completely during passive

exposures to natural settings than in the urban environment. Barnett (1990) also drew the conclusion from the result of studies that play is important in successfully dealing with unpleasantness in the environment.

- **Improve attention:** A study conducted with children with Attention Deficit Disorder (ADD) symptoms found that those who spend some time in a natural green setting everyday able to manage their study better than the children in other settings (Taylor *et al.,* 2001). A study conducted by Scheleien *et al.,* (1990) also showed some positive effect of utilizing social levels of play on the appropriate play behaviour of children with autism.

Aesthetic: Physical environment where individuals engage in their play and recreation activities which are well designed, pleasing and interesting, develop their aesthetic sense (Beard and Ragheb, 1980). One of the central roles of the children's play is aesthetic development of children (Hughes, 1990; Crandall, 1980).

There are a number of constraints which affect the opportunity to attain children's outdoor play and recreation provisions, which are stated next.

2.3 Constraints of Play and Recreation for Children

There are increasing pressures on children's opportunities for free play. These pressures may include parental expectations of academic progress from an early age, increased pressure for child supervision at all time due to lack of safety and security, traffic dangers, parental fears and the loss of natural play opportunities through housing development and the lack of transport (Woolley, 2006). The following are the main factors or barriers to children's rights to play:

Attitude: Parents from middle classes are anxious for their children to find work in a highly competitive technological society; they often fail to recognize the benefits of play to their children's development (Hart, 1992). This issue is confirmed in a number of studies. As the Luciano L'Abate (2009), a clinical psychologist showed his concern about the American adults little respect about children's play needs. A research conducted by Child (1983), in UK found that many Asian mothers did not appear to consider play to be so important for their children's development as English mothers. It

was found that Asian mothers gave less encouragement to their children's play activities. Different studies also revealed that parental leisure values, attitudes and behaviour are very important in shaping children's leisure decisions (Woolley, 2006; Philipp, 1999; Howerd and Madrigal, 1990).

Girls are excluded and their needs for play are not considered in the conventional play provision: Many researchers found that in the conventional playground planning, girls are being excluded from play although girls have an equal need for play. It was also observed that there is a tendency to be more protective of girls and many girls are expected to assist in the care of their siblings instead of playing (Hart, 2002; Bartlett, 1999). The study conducted by Child (1983) found a difference in sex-related preferences for different types of play. The study found Asian girls played with paint somewhat more frequently than boys, and the boys were engaged more frequently in unstructured physical play. The study by Culp (1998) sought to identify constraints to adolescent girls' participation in outdoor recreation. The qualitative analysis revealed several specific sources of constraints, including stereotypical gender roles, peer and family expectations, access, and physical and environmental factors as the major barriers for adolescent girls to participate in the outdoor play activities. The study conducted with 927 Dutch juveniles from different socio-economic groups found boys expressed differently from girls. Boys wanted to have more freedom of movement than girls and girls wanted to be with their peer groups in public (Zeijl *et al.,* 2000). The study conducted by Siddiqui (1990), found that only about 16% of the park users in Dhaka city are women and girls. The more specific gender role constraints included ideas that it is unacceptable for girls to get dirty, that boys are considered tougher or more competitive, and some activities (e.g., sports, hunting and fishing etc.) are traditionally considered more appropriate for males (Culp, 1998). A study in Johannesburg, South Africa found that girls are not allowed to go to the park although they live alongside the park (Kruger and Chawla, 2002).

Lack of opportunities: Urban safety hazards and health risks have a significant effect on the play opportunities available for the children. Human or animal excreta, broken glass, plastic bags, rotten food and burning materials are among the common hazards to children living in poverty (UNICEF, 2002b). A number of risk factors the children in urban areas face are increasing traffic, stray dogs, standing water, open drains and debris-

filled lots (Ahmed and Sohail, 2005). Limited time of parents and energy to play with their children has resulted in children spending more time in organized indoor programmes (IPA World, n.d.). Lack of open space in the housing complexes hindered children's play. Most of apartment buildings do not have outdoor play spaces (White and Stoecklin, 1998). A number of factors that give the lives of children very few opportunities for free play are as follows:

- **Safety:** Children's safety is one of the major issues for parents when their children leave the house alone and many children are no longer free to roam their neighbourhoods or even their own yards unless accompanied by adults (White and Stoecklin, 1998). It is found that increased traffic has led to a significant decrease in children's freedom to move and travel independently (Play Ireland, n.d.). Although it is found from research in the United States that every year accident rates for the children in their homes are far higher than in the playgrounds (Hart, 2002). Fear of litigation is one of the leading worries among the play providers. As a result, there is a tendency to minimize risk of injury at the expense of the more fundamental objective of the playground. The effect is to stop children from enjoying a healthy range of play opportunities. This limits their enjoyment and leads to potential damaging consequences for children's development (Free Play Network, n.d.).
- **Changing structure of a family life pattern:** This may have a negative effect on the children's opportunities for free play. Children's lives have become more structured and scheduled by adults. Many parents have put excessive effort into academic pursuits and lessons over outdoor play. As a result, children do not have time for free play anymore and when they have time, it's often spent inside the house in front of the television or computer (White and Stoecklin, 1998).
- **Changing play pattern:** Due to the loss of indigenous games and modes of recreation such as children's cultural groups, boat riding, kite flying and the rapid urbanization, children are more interested in acquiring more western tastes and values, neglecting their own traditional means of recreation. The change in the play materials and tools to specific play commodity remains intertwined with the material manifestations of commodities. Children's popular culture in the late 1990s –chase cards, beanie baby plush toys and Pokemon trading cards raised a concern among the parents as these crazes affect the moral of the children's

play because it teaches the material manifestations of capitalism and commerce (Cook, 2001).

- **Lack of parent's support for children's play:** Lack of parents' understanding about the importance of children's play is one of the hindering factors for children's play. Sometimes parents' laziness affects the participation of children in outdoor play and recreation particularly where children needs parents support to take advantage of these facilities (Hart, 2002). The current prevailing perception among parents is that academic success is the best path for children's future in the increasingly competitive world (White and Stoecklin, 1998; IPA World, n.d.). Same concerns were also raised by Riggio (2002) suggesting that even children in wealthier communities are often bound to live in a world rigidly organized by adults with little opportunity for playing and socializing freely with their peers. Therefore, young citizens usually lack opportunities for expressing their special needs and aspirations. Also parents' office-hours which are usually up to late evening is creating hindrance for taking children out for play or recreation. Despite the fact that children are the major consumers of recreation services, the role of children in the purchase of public recreation services has been virtually ignored (Howerd and Madrigal, 1990).
- **Technology:** Play is trivialized by parents and capitalized on by the corporate world which invents expensive systems of toys and electronic technology. This man made, commercialized environment restricted children from natural, stimulating environment and provided a pre-programmed play where children have to follow the play instructions designed by adults overlooking the children's desire for free and instinctive play (Hart, 1992). Television, computers and computer games keep children 'glued to screens' for hours which discourages critical thinking, and diminishes a child's interest in learning to read (IPA World, n.d.; Lobo and Olson, 2000).
- **Poor design:** It is found that many playgrounds suffer from poor design and scope for play of a narrow age group, mainly adolescents, as the safety-proof measures mean the removal of the most enjoyable play equipment from the playgrounds, making them unattractive and less enjoyable for the children. The older people and parents also need recreational facilities; therefore co-locating those with playgrounds make them economical and more appealing and attractive for parents of younger children as well as for older people. They are

also sometimes boring for parents as they do not find any activity or interest in these playgrounds and parks (Goffin and Ward, 2006).

- **Inadequate education and training of play and recreation professionals:** Children would benefit from an increase in knowledge of play by architects, landscape and interior designers, planners, teachers, coaches, and recreationalists (IPA World, n.d.).

2.4 Factors Influencing Children's Outdoor Play and Recreation

2.4.1 Children's Preferential Factors

i. Children play whenever and wherever they need to not only in the designated playgrounds: The realization that the perception of children regarding play space and their immediate environment is different from that of adults was first expressed by the eminent urban planner, Kevin Lynch. In 1955, a group of architects and planners at Massachusetts Institute of Technology (MIT) tried to recollect their childhood memories about their play spaces and found that these were quite different from the adult perception about these elements. The most interesting thing that came out of the study was that children seem to prefer to play anywhere but the playground. It was also revealed that children's play is most satisfactory when they are allowed to have the opportunity to manipulate their environment according to their needs (Banarjee and Southworth, 1996). It is recognized that the role of the adult should be for facilitating or supporting children rather than directing children's play. This notion sets a milestone to the importance of better understanding and knowledge of children's views for the design of play spaces. Roger Hart (2002) and Louise Chawla (2002b) echoed strongly with Kevin Lynch (Banarjee and Southworth, 1996) on the difference of children's perception about their play. In this regard, Hart (2002) mentioned that a number of public playgrounds were created in New York City by the city authority in order to keep children off the street and from any bad influences. But it was revealed that only 20 percent of the target children were attracted to play in these playgrounds. Researchers from many parts of the world show that children prefer not to be isolated away in playgrounds but to be in closer, interactive relations with family, friends and neighbours. Kruger and Chawla (2002) narrated that when children in a low income neighbourhood of Johannesburg,

South Africa asked for their recommendations, they suggested the improvement and protection of the existing areas where they played rather than creating special and separate facilities for their play and recreation. In general, children most cherish the informally "found" places in their local neighbourhood, rather than the purpose built settings provided by adults.

Research shows that for children, just because the children need some space to play, does not mean that a playground is the best or only solution for the community. Playgrounds are a part of a community's provision of play for children; they are not the only answer. In England, researches show that children play within open areas of housing estates that are not designated playgrounds (Woolley and Ward, 2010). Experience from around the world has demonstrated that even poorest neighbourhoods can be rich environments for play and children do not need expensive toys and equipments to fulfill their play needs (Bartlett, 1999). Researchers have consistently found that children would rather play in streets, side-walks, back alleys and empty plots rather than in formally designed playgrounds which are segregated from the world of adults (Bartlett, 1999).

ii. Lack of maintenance is the main reason for not using play facilities by the children in Dhaka city: The common and major problems with the playground and parks are the lack of maintenance, inadequate toilet facilities, absence of seating facilities, anti-social activities etc. (Biswas, 2002, and Siddiqui, 2002). The responsibility regarding the development and maintenance of parks and playgrounds in Dhaka city is very fragmented and no standard guidelines for the minimum standard of these facilities exist. There is no single agency which owns and is responsible for the development and maintenance of these facilities. Proper management of outdoor play and recreation facilities is a prerequisite for maintaining a high standard of these facilities in any city.

iii. Segregation of responsibilities of relevant agencies for management of playgrounds and parks in Dhaka city: The Arboriculture division of Public Works Department (PWD), Dhaka City Corporation (DDC), Capital Improvement Authority (Rajdhani Unnayan Kartipakhya or RAJUK), Bangladesh Railway, National Sports Council, Directorate of Sports etc. own the outdoor play and recreation facilities in Dhaka city. There is no separate department in DCC or in RAJUK for the maintenance and

development of these facilities. As a result, most of these parks and playgrounds of Dhaka city are ill-maintained and thus have become unsuitable for use by most of the city inhabitants (The Daily Star, 2009a:2008c; Siddiqui, 1990). The two agencies (RAJUK and DCC) are always blaming each other for neglecting their responsibilities (Prothom Alo, 2009a, 2009b).

iv. Children prefer to play close to their home: A number of researchers such as Chawla (2002b), Bartlett (1999), Hart (1992), identified that for younger children, the most preferable play spaces are those closest to their homes. Children prefer to play in doorways, alleys, gutters and streets close to home where they are in contact with the adult members of their family. Environmental autobiography of landscape architecture students found the most favourite and memorable places and spaces of childhood are those at/around their home, within walking distance; those within easy access of home or are close to school, or close to relatives home (Wyman, 1985). Also a visual study of urban open space for children in Tabriz, a city in Iran, showed that their desired play space is close to their homes (Gharahbeiglu, 2007). In England, researches show that playgrounds which are used most are open and visible from nearby housing (Woolley and Ward, 2010).

v. Children's perceptions and needs for play and recreation are different from adults: A research result for Venezuela found when the young people were asked what they would like to change in their neighbourhood, 80 percent expressed the view that they would create play spaces free from drugs, repair the streets, stairways; install more trash containers, create more eating places, have more friends and have more flowers and trees. When the adults were interviewed, most of them focused on inadequate public services, inadequate public transport, trash collection and sanitation and water etc. (Angelica and Gaaimaro, 2001). Result by the "Wild About Play" project found a substantial gap in children's own ambitions for outdoor play and what is offered through play provision (Maudsley, 2006). Studies conducted in UK also indicated that there is a considerable gap in adult thinking and children's needs and use of different landscape features. As a result, serious restrictions on the opportunities of children's play both within and outside their home have been imposed due to safety issues (Roe, 2006).

vi. Children from all socio-economic backgrounds want to play with their peers or friends: Play with peers and friends are extremely important for social, moral and

emotional development of children. In the play setting, children learn to understand each other and to develop skills of cooperation, sharing and caring. It has been well established from research that friendships are not formed in the organized settings of classrooms, but in play (Hart, 2002). This finding is also endorsed by other researchers who found that irrespective of socio-economic condition and gender children want to play, visit or simply be together with friends (Ahmed and Sohail, 2005; Riggio, 2002; Zeijl *et al.,* 2000; Scott and Willits, 1998; Barnett, 1990).

vii. Girls' needs and perspectives on play and recreation are different from boys: Although, it has been well recognized that children's play has a vital role for physical and cognitive development of both boys and girls, in the name of protection, the need for girls' play is always given least priority. No deliberate thoughts or consideration have been given to understand girls' special needs for play and recreation (Hart, 2002). There is a common assumption that the responsibilities of authorities end when boys have access to recreation and play (Bartlett *et al.,* 1999). In the USA, playground reformers took Hall's theory (Barnett, 1990) to secure the correct development of immigrant children through providing playgrounds. However, the theory- where children have to experience the phases of human evolution- somehow fails to establish the link between the girls' development and the playgrounds, as the reformers conviction that exposing girls to public sight threatened their development and imposed a series of special restrictions (Gagen, 2000). Even in New York City, there has been no independent critical analysis of the play opportunities for girls (Hart, 2002). It is found that girls have different leisure preference from boys (Chamberlain, 1983). Boys have more freedom of movement and have enjoyed more public places than girls. On the other hand girls are more tied down to their homes (Zeijl *et al.,* 2000). A study conducted by King (2000) with high risk African American girls found that adolescent girls wanted to have an outdoor basketball court in their neighbourhood which they considered their owned spaces (King, 2000). It is found that hanging out with friends is a highly valued form of leisure for adolescent girls. Peer relationships may be particularly meaningful for girls since female socialization emphasizes dependence on others and maintenance of close social bonds (Culp, 1998).

viii. Older children and teens need a safe place to hang out: Older children and teenagers need safe places to "hang out" and socialize (Play Ireland, 2004). It is found

that older teenagers do not have an area where they can play teenage games like basketball, soccer etc. Sometimes society does not look positively on children's behaviour of hanging around; society thinks children are wasting their time (Fonseka, 1997).

ix. Children have natural affinity for nature: *"Children's relationship with the natural environment changes with age from the age of wonder in early childhood, through physical engagement in middle childhood, to a detachment from it with increasing socialization of adolescence and re-engagement in early adulthood*" (Woolley *et al.,* 2009). Researchers have identified that children have a natural affinity with nature and they enjoy, learn, experiment, create and find their own identity in natural environment (Cobb, 1977; Moore and Wong, 1997). Positive changes in less desirable behaviours e.g., introversion, hostility, distractibility and dependence were observed among campers by the end of a summer camp in Maine (Chenery, 1981). Other researchers found that children, particularly young children, from all socio-cultural backgrounds like to play with sand (Hart, 2002; Child, 1983).

x. Children's preference regarding the natural settings in design of play and recreation are different from those of adults: Research on children's preference shows that if children had the design skills, their design would be completely different from the areas called playgrounds that most adults design for them and can be fully naturalized with plants, trees, flowers, water, dirt, sand, mud, animals and insects, but also would be rich in variety of play opportunities of every imaginable type. But in contrast, most of the playgrounds designed by adults are asphalt areas with gross motor play equipment such as swings, jungle gyms and slides where they went for recess. The adults consider these elements as models for children's playgrounds (White and Stoecklin, 1998). A study with children between six and twelve years of age in Tarbiz, Iran found that their drawings are full of natural elements (Gharahbeiglu, 2007).

xi. Boundaries of playgrounds or play space are very important for children: A six-month in-depth pilot study with a small group of children aged 6-10 years in the North East of England focused on the relationship of these children with their local landscape found that boundaries were particularly important in physical and emotional terms for both the children and their parents (Roe, 2006). There are similar findings also in early twentieth century by the American Playground Association about the importance of

boundaries of playgrounds to a child. The creation of a spatial identity with a sense of ownership and control was found to be assisted by the creation of visible boundaries. If the playground is unfenced, it is like a vacant space to children without any individuality (Gagen, 2000).

xii. Streets can serve as a place for children's play: In the recent past in Iran, streets were a suitable setting for children's informal outdoor play. Streets offered an opportunity for children to pursue physical activities freely without reliance on parents to take them outside. Streets can play a significant role in this respect (Rowhani and Mahdjoubi, 2006: Abu-Ghazzeh, 1998). It is also found that children play mostly on the street even when playgrounds are provided (Play Ireland, n.d.). In response to this, several initiatives were taken by different organizations like "Street Play" in New York, "Woonref" in Netherlands and "Home Zones" in UK (Home Zones, n.d.).

xiii. Drop-in centres can serve as play and recreation places for children: With so many parents working in the modern world today, children who are left with household helps spend few hours at home before their parents return and would welcome a friendly place in the neighbourhood. These drop-In centres in Malaysia in general refer to a service for youths whose parents are both working and their children are left alone at home after school hours. In Dhaka, there are some drop-in centres supported by NGOs but they mainly cater to the recreation needs of poor children living in slums and the streets (ARISE, 2001). These drop-in centres can also play an important role in catering to the needs of children from middle and high income families where both the parents are working and can be placed together with child-care centres, libraries and community centre.

xiv. Proper landscape makes parks attractive to children: Parks with proper landscape give stimulating and enriching experiences to the children. The main elements of proper landscaping of parks and open spaces are plantation, water body, ground coverage, design features, shading, etc. (Islam *et al.,* 2002). The following points are taken from work by Bob Hughes (Bristol City Council, 2003), who has done extensive research on children's play:

i. Creating a varied and inspiring environment through changes of levels, different types of spaces, creating places to hide, trees,- places to inspire mystery and imagination.

ii. Challenge in relation to the physical environment by any activity which tests the limits of capabilities, rough and tumble, sports and games, chase.

iii. Playing safely with natural elements (earth, water, fire and air) like campfire, digging, playing snowballs, flying kites.

iv. Movement like running, jumping, rolling, climbing , balancing like beams and ropes, soft mats, bike riding, juggling equipment, ladders, space.

v. Manipulating natural and fabricated materials like materials for art, cooking, making and mending of all kinds; building dens; making concoctions; using tools etc.

vi. Stimulating the five senses: music making, places where shouting is fine, quiet places, different colors and shapes, dark and bright places, cooking on a campfire, a range of food and drink, objects that are soft, prickly, flexible, large and small.

vii. Experiencing change in the natural and built environment: experiencing the seasons through access to the outdoor environment; opportunities to take part in building, demolishing, or transforming the environment.

viii. Interacting with each other: being able to choose whether and when to play alone or with others, to negotiate, co-operate, compete and resolve conflicts. Being able to interact with individuals and groups of different ages, abilities, interests, gender, ethnicity and culture.

ix. Playing with identity: dressing–up, role-play, performing, taking on different kinds of responsibility.

x. Experiencing a range of emotions: opportunities to be powerful/powerless, scared/confident, like/disliked, in/out of control, brave/cowardly.

xv. Shopping malls can serve as children's recreation centres: Shopping malls nowadays have become common leisure destinations for the citizens. Children and youth corners can be arranged in shopping arcades and malls. For example, a mini library, used book exchange, an internet access site, music store, children's play centre, toy store, and game centre can be located in a mall (UNICEF and UNDP, 2000). A study conducted by Kabir (2004) in Dhaka city found small amusement parks in a shopping mall can be economically viable in the context of high demand of children.

xvi. Children from the poorest community have more freedom to play than those from the wealthier community: Hart (2002) had identified that children in many of the poorest neighbourhoods have more freedom to play outdoors close to their homes than children from middle and high income groups. The study conducted by Siddiqui (1990) in four neighbourhoods in Dhaka city found that the use of parks and playgrounds decreases with increase of income. It is also found that children from wealthier families are more influenced by their parents' decisions regarding their leisure beheviour than those from the poorer families (Sutton, 2008; Zeijl, *et al.,* 2000).

xvii. Preferences and play patterns are different for Children from different socio-economic background: A study conducted by Child (1983) with children of Asian and English background found that the content and styles of play differ. The study conducted by Philipp (1999) among African American and European American adults in their preferences about their children's leisure activities found that "*Parental perceptions of the Racial acceptance associated with leisure activities may have considerable influence upon children's leisure preferences and participation patterns*." (Philipp, 1999 p.386).

xviii. Low income children miss opportunities to participate play and recreation activities: It revealed from researches conducted in United States that children from low income families are less likely to participate in out of school activities because of the cost of the organized activities including activity fees and ancillary cost related to transport (Dearing, et al., 2009). A research conducted by Sutton (2008) in the United Kingdom clearly demonstrated that poverty reduces children's opportunities to participate in organized and structured leisure activities. Play and recreation are often overshadowed by other priorities and needs facing children from low-income groups (Patt and Caruso, 2004).

Table 2.2: Children's preferential factors

a. Children's Preferential Factors
i. Children play whenever and wherever they need to not only in the designated playgrounds
ii. Lack of maintenance is the main reason for not using play facilities by the children in Dhaka city
iii. Segregation of responsibilities of relevant agencies for management of playgrounds and parks in Dhaka city
iv. Children prefer to play close to their home
v. Children's perceptions and needs for play and recreation are different from adults
vi. Children from all socio-economic backgrounds want to play with their peers or friends

vii. Girls' needs and perspectives on play and recreation are different from boys
viii. Older children and teens need a safe place to hang out
ix. Children have natural affinity for nature
x. Children's preferences regarding natural settings in design of play and recreation are different from those of adults
xi. Boundaries of playgrounds and play space are very important for children
xii. Street can serve as a place for children's play
xiii. Drop-in centres can serve as a play and recreation places for poor children
xiv. Proper landscape makes parks attractive to children
xv. Shopping malls can serve as children's recreation centres
xvi. Children from poorest community have more freedom to play than those from wealthier community
xvii. Preferences and play patterns are different for Children from different socio-economic background
xviii. Low income children miss opportunities to participate play and recreation activities

Several policy factors related to children's play and recreation have been identified through the literature review. These policy factors are relevant for play and recreation provision planning for Dhaka city.

2.4.2 Policy Factors

The play and recreation policy should be incorporated with the country's national development plan as a part of the social development programme (Biswas, 2002). The principles of the Play Policy should be based on children's rights to play freely in their own neighbourhood and play provision should be accessible to all children irrespective of the socio-economic groups and physical condition (Children Play Council, n.d.). Local authorities should have the lead role in ensuring the provision of a range of play opportunities in a variety of settings for children and young people of all ages, abilities and interests (Bristol City Council, 2003). The following are the factors and issues found by different researchers and agencies to be considered for the formulation of play and recreation policy:

i. Decreasing trend of children's play spaces: Due to rapid urbanization and unplanned habitation, there are some serious obstacles to safe play in many urban neighbourhoods, including the environmental hazards, traffic and social security (Bartlett *et al.,* 1999; Spencer and Blades, 2006). There are have been reports about the encroachment of open spaces, playgrounds and parks in Dhaka city in the daily newspapers in Bangladesh (The Daily Star, 2009b, 2008a, 2008b, 2008c, 2008e,

2007b). As there is no regulatory body to resist encroachment in Dhaka city, encroachment of playgrounds, parks and open spaces is almost a common practice in Dhaka city (Siddiqui, 1990; The Daily Star, 2010, 2009a, 2008d, 2007b; Prothom Alo, 2009a, 2009b). As a result, unauthorized construction by local influential persons and renting out of these playgrounds and parks for commercial purposes are also common practices for DCC. These limited facilities are used for commercial purposes and as a result, children are deprived from using these facilities.

The ratio of recreation space to the total area in Dhaka city is far below the standards followed in other countries of the world (Biswas, 2002). In the United States and Britain, the ratios of recreation area to the city population are six and ten acres per 1,000 persons respectively. In a city like Singapore with extremely high population density, the ratio of open space to the city population is 2.5 acres per 1,000 people. In case of Dhaka city, the amount of open space per 1,000 people is only 0.56 acres, which is far below the level for any modern, efficient city in the globe (Siddiqui, 1990).

ii. Accessibility measurement is needed to assess the distribution pattern of outdoor play and recreation facilities of Dhaka city: The quality of life in a city refers to the accessibility of its inhabitants to employment alternatives, educational and medical facilities, essential public social services, and nature or extensive recreational open space (Nicholls and Shafer, 2001). Accessibility can thus be said to measure the relative opportunity of interaction or contact with a phenomenon. The higher the level of accessibility, the higher the level of choice and opportunity conferred (Gregory, 1986; Harvey, 1988). The term equity refers to the fairness or justice of a situation or distribution. It is thus concerned about the question, “Who gets what?” or, normatively “Who ought to get what?” (Nicholls and Shafer, 2001).

Traditionally, studies of accessibility for public services or facilities have been conducted by academic geographers in purely geometric terms by using mathematical models and formulae to calculate the efficiency of distributions. The primary aim of these studies is maximization of system profits and minimization of system costs (Gregory, 1986; Nicholls and Shafer, 2001). Some geographers have criticized this efficiency based approach to accessibility, which may result in significant discrimination against certain areas and groups. They stress the importance of identifying and understanding the

social and economic dimensions of accessibility in relation to users of these services and facilities (Harvey, 1988).

iii. Child centered plan and its implications for policy and planning: Quite often play provisions are designed and planned by adults without applying a child/youth "lens". Sometime a narrow lens is applied leaving no impact on children's issue. A crucial part of knowledge expansion must involve communities themselves, and particularly children and youth (Child Friendly Cities, n.d.). As children represent a substantial proportion of the population in most developing countries, it is a responsibility for both governments and civil society to ensure that children's welfare is at the centre of all policies and measures. Policies and interventions that fail to address their interests also fail to realize an important opportunity for the nation (Bartlett, 1999).

iv. Humanitarian approach to play and recreation service delivery: Leisure service delivery should be connected not just with the provision of leisure activities, but within the human (children) and community development framework. The Convention on the Rights of the Child (CRC) should be the main guiding principle of the children's play and recreation service delivery (Lobo and Olson, 2000).

v. Include children's views at the local council level: To have credibility in providing inputs for the consideration of local municipal council, children must be allowed to participate at the decision making level (Bristol Play Council, 2003). The establishment of a Children's Consultative Council (CCC) at the community level is important in order to create a common platform for children and the local council. Representatives from schools, sports clubs, and civil society can work as members of the CCC (UNICEF and UNDP, 2000).

vi. Involve local government: The role of the local government is important in the provision for play services. It is found that where local officers understood the value of the service to children, they are invaluable to the projects/initiatives and can extend a valuable support for real implementation of these projects/initiatives (NCB, 2006).

vii. Children's play needs should be integrated with the housing and local infrastructure development efforts: Children's play needs should be taken into consideration in housing and community upgrading efforts and the local infrastructure

development plans (NCB, 2006). This helps with fund raising, training, registration and linkage with local planning agendas (Bartlett, 1999). The play initiative has a direct link with the city's transportation network. To create play space and facilities, there is a need to alter or adjustment of traffic flow and speed (Home Zones, n.d.).

viii. Balance between the safety and risk taking for children's play: Some child development experts hold the view that the ability of a child to assess risk is an essential part of child development. It is better for the children to learn in the relative safety of a playground than on a construction site. It is neither possible nor desirable to provide a risk free play area (Play Ireland, n.d.). Fear of litigation is leading many play providers to focus on minimizing the risk of injury at the expense of other more fundamental objectives. Children's play provision has to find a balance between meeting the play needs of children and ensuring parents' confidence that their children are safe in the care of competent people (NCB, 2006).

ix. Good management for sustainable play provisions: This is very important to ensure a self-monitoring and self-assessment mechanism in building child-friendly play initiatives (UNICEF and UNDP, 2000). It is important to have proper maintenance of the facilities. Regular supervision and monitoring is the key for maintaining quality of the facilities (Islam *et al.,* 2002).

x. Identifying appropriate funding sources: The key problems facing most of the municipalities in providing playgrounds are the lack of funding, concern about insurance & liability and supervision associated with play provision (Play Ireland, n.d.). In this regard, private partners should be considered. A study shows that a small scale amusement park, with land size of one acre in Dhaka city can run in a profitable way (Kabir, 2004). For continuous support and to recover the maintenance cost of amusement parks, some sort of ticketing system should be introduced and the price of the tickets should be within the affordable limits of the users (Islam *et al.,* 2002).

xi. Anti-social behaviour prevention strategies: The most sensitive policy area is one which derives from concern about crime and crime prevention. In order to address these concerns the government should introduce measures. In England, the Anti-Social Behavior Orders are facilitated under the Crime and Disorder Act (1998) to protect from undesirable harassment in the public open spaces (Woolley, 2006).

xii. Capacity building of play provision staff: The play workers should help create diverse and exciting play environments and act as friendly, informative resources when needed. One of the most effective ways of ensuring service quality is through valued and motivated staff. There is a need to improve opportunities for play provision staff through structured development and training programmes (Free Play Network, n.d.).

xiii. Awareness generation: Creation of awareness on the importance of play can play a supportive role for the provision of play and recreation facilities at the community level. Children require time and support for play and these needs must be understood by the family members, teachers and other adults. In most municipalities, if the provision exists at all, it tends to be limited to space that primarily meet the needs of young men (Bartlett *et al.,* 1999). An awareness creation programme should be developed and implemented for the parents to improve their knowledge in children's play and development (Fonseka, 1997). The summary of the policy factors is presented in the following table:

Table 2.3: Policy factors

b. Policy Factors
i. Decreasing trends of children's play spaces
ii. Accessibility measurement is needed to assess the distribution pattern of outdoor play and recreation facilities of Dhaka city
iii. Child centered plan and its implications for policy and planning
iv. Humanitarian approach to play and recreation service delivery
v. Include children's views at the local council level
vi. Involve local government
vii. Children's play needs should be integrated with the housing and local infrastructure development efforts
viii. Balance between safety and risk taking for children's play
ix. Good management for sustainable play provisions
x. Identify appropriate funding sources
xi. Anti-social behavior prevention strategies
xii. Capacity building of play provision staff
xiii. Awareness generation

2.5 Conclusions

Children are a society's bridge to the future (Chawla, 2002a). They have the longest future in society; therefore it is vital to have their participation in long-term planning in

order to avoid long –term consequences. Children can be active partners in research on their play environment, as play is a spontaneous, natural behavior of the children. As a result of the children's exclusion in the planning and design process and adults' attitude to design a prototype for all irrespective of age, sex, and socio-economic background, these facilities have been left as unattractive or inaccessible particularly in terms of space. This research is an endeavor to analyze each of the dimensions of children's outdoor play and recreation

This chapter has given a background of the research context by giving insights on the relationship of play and child development and its importance for children participation in the community development aspects. It also gives an elaborate description of factors in relation to children's play by analyzing different research works done by both individual and different relevant agencies all over the world. It was revealed from the literature search that most of the research works have a single dimension; either in relation to child development, landscape architecture or child rights but none of them actually embraces all these multiple dimensional aspects of children's outdoor play recreation in a single framework.

Although the issue of child participation is mentioned by many researchers and policy makers, it is yet to be reflected in any legislative measures. Many of the child friendly initiatives depend on the goodwill of an inspired official and as such remain patchy and ad hoc. Child participation is a new practice which needs a deeper understanding of ways that encourage and sustain. This research also gives a practical direction for the planners in view of children's participation, planning guidelines, policy issues and institutional arrangements required for the development of outdoor play and recreation facilities of Dhaka city.

CHAPTER 3: RESEARCH METHODOLOGY AND PROCESS

3.0 Introduction

This chapter discusses the elements of the research design including the methodological issues associated with conducting the research. This chapter also justifies the different research approaches, methods, techniques and tools applied in the research. The research process is described including the steps considered in the research starting from conceptualization, development of research framework up to the development of the institutional arrangement for the planning of children's outdoor play and recreation provision of Dhaka city. It explains the techniques for interviewing children, ethics in working with children and issues of confidentiality and anonymity. This chapter goes further to discuss data collection methods including sample design, children's perception study, users' views on the existing outdoor play and recreation facilities, direct observation, interviews with parents and professional bodies, accessibility and equity assessment.

3.1 Research Design

3.1.1 Research Approaches

The two principal domains of the research were social science and applied science. Here, only single discipline such as social science or applied science (urban planning) cannot provide full understanding of the complex research questions. An **interdisciplinary approach** is applied when there is a need to integrate knowledge and modes of thinking from two or more disciplines in order to solve a problem, in ways that would not have been possible through single disciplinary means (Repko, 2008). *"Interdisciplinary studies rely primarily on the disciplines for their perspectives, insights, data, concepts, theories, and methods in the process of developing an interdisciplinary understanding of a particular problem, not a class of similar problems"* (Repko, 2008, p. 15). An understanding of the overall perspective of each relevant discipline is the pre-requisite for the interdisciplinary approach. In addition, it is also important for the researcher to be trained with the techniques of integration and self-conscious awareness of the interdisciplinary research process. Finally, ability to critically evaluate disciplinary insights is the most important skill of the researchers, needed to carry out interdisciplinary research.

"Social research is concerned with exploring, describing, and explaining social phenomena involving human behavior" (Sufian, 1998, p.1). This **social research** sought

to explore and understand the factors and issues associated with the planning of outdoor play and recreation provisions from children's perspective. The strategy, approaches, methods and process of the research were designed to enhance the understanding of the factors and issues related to children's perceptions about outdoor play and recreation provisions. **Applied science** is an application of scientific knowledge into a physical environment.

Exploratory research is flexible and allows the gathering of new insights to questions related to this research subject and is more suitable for a situation when some knowledge is known but more information is required to build an appropriate theoretical framework. The descriptive researches are conducted to find out the characteristics or the profile of persons, events or situation more accurately. Descriptive research requires the collection of quantitative data (Neuman, 1997). Both the **exploratory and descriptive research approaches** were applied in this research as there was little knowledge on children's outdoor play and recreation and the need for new issues to explore further. This study sought out new insights about children's play in a structured way from different angles in order to develop a conceptual framework for this issue.

3.1.2 Research Techniques

The two common types of research technique e.g., **qualitative and quantitative** were applied in this research. The qualitative technique was applied as it is best suited to understanding children's opinions on the outdoor play and recreation provision. The qualitative method was used to get a deeper understanding about the social issues and a fuller understanding of the complexities of social realities, particularly for children's play issues which encompass a child's overall wellbeing (Silverman, 2000; Knap and Propst, 2001; Culp,1998). The qualitative techniques helped the researcher to get first hand understanding about the participant's perspectives of the play and recreation needs and priorities of children living in Dhaka city. It also helped to get some interesting details which came out through group interactions with the researcher which were further explored and validated through other research tools later on. The core theme of the research was to understand children's perceptions and needs about the outdoor play and recreation provisions and it has been shown that the best way to let children express their views is to interview them (Knap and Propst, 2001). Knap and Propst (2001) further encouraged the park and recreation professionals to adopt

qualitative methods such as Focus Group Discussions (FGDs) for conducting recreation needs assessment. They strongly recommended FGD as the “stand alone” procedure for conducting recreation needs assessment.

In this research, **in-depth interviews** and **Focus Group Discussions (FGD)** were conducted to have deeper understanding of the children’s perceptions about their needs, preferences, and imagination concerning the outdoor play and recreation provisions. The FGD technique allowed the researcher to assess the group dynamics, discussion, and first hand insight into the respondents’ behaviours, attitudes, language, etc. Focus Group Discussions facilitate the understanding of people’s thoughts and perceptions about an issue, through group interactions and discussion (Woolley *et al.,* 1999). The groups for this research comprised young children and adolescents, boys and girls and four socio-economic groups (children living in streets and slums, children from middle and high income brackets). Interactions through FGD generated data and insights about children’s preferences on their play and recreation helped the researcher to understand the views of the different groups in a broader way.

The **in-depth interviews** gave the children the opportunity to express their views in a more open and independent manner. The in-depth interviews of the children helped the researcher to understand the individual needs, issues and problems related to outdoor play and recreation provision of Dhaka city. Also it was found that some of the children felt more comfortable and free to talk to the researcher individually rather than in a group. Also separate in-depth interviews were organized to give more insight and understanding about a particular issue raised during the focus group discussions.

The **quantitative tools** were used to understand the extent of the problems and the requirements related to the quantity of a specific facility for the target groups. The quantitative research technique was used to establish evidences with concrete and more accurate information about the extent and magnitude of problem and issues. To have more in-depth, specific views on the existing play facilities from users’ perspectives, a quantitative survey method was applied in the research. A **structured pre-coded questionnaire survey** was conducted with children who used the facilities at the time of questionnaire survey. This questionnaire survey provided very specific information about the children’s views on the physical, environmental and maintenance aspects of these

facilities and also their suggestions about the size and type of these facilities. It also gave important information about the use patterns of the children of Dhaka city with respect to different socio-economic groups, age and gender.

Observational techniques are methods by which researchers gather first-hand data on processes or the behaviour of an individual or group of people and the observations can range from formal to casual data collection activities (Yin, 2003). By directly observing activities, researchers can develop an understanding of the context within which activities are performed. Observations also allow the researcher to learn about things which cannot be gathered by asking (NRT, 2004). There are two types of observational tools used in research work, direct observation and participant's observation. Direct observation is fundamental to all types of investigations and is a systematic informal method. The participant's observation is frequently employed in ethnographic and anthropological studies. It is characterized by the investigator being present for a longer period in the society under study. The **direct observation method** was chosen in this research to observe children of different socio-economic groups using the playgrounds, parks and amusement parks. Here through direct observations of children in their natural play environment, the researcher was able to gain a more comprehensive understanding of physical conditions of the outdoor play and recreational facilities as well as to understand the behaviours of the children with respect to different types of play settings which was not possible through the interviews.

To understand the accessibility and equity to children of different socio-economic background, the researcher used the **Epi- Info, Geographic Information System (GIS)** computer applications and the analysis was carried out by using **Centroid Radii and Road Network measurement of accessibility** tools. As there was no standard map with all the playgrounds, parks and amusement parks available from any organization, the researcher had to prepare maps with these facilities by using a GIS technique through extensive field investigation and validation.

Semi-structured questionnaire survey, and key informant interviews were conducted with parents and professionals respectively to bring out issues related to attitudinal, policy and institutional aspects related to children's outdoor play and recreation provisions.

According to Leedy (1993), the triangulation method is applied in the following four conditions:

- Theoretical triangulation involves the use of different perspectives in the same set of data;
- Data triangulation attempts to gather observation through more than one sampling strategy;
- Investigator triangulation is the use of multiple observers, interviewers and analysts in a particular study; and
- Methodological triangulation is the use of more than one method of data collection procedures applied in a single study.

The **data level triangulation** was used in the study by synthesizing, analyzing and validating data gathered by in-depth interviews, questionnaire survey, parents' and professionals' views, direct observation and accessibility and equity assessment by using Geographical Information System (GIS). To gather a complete scenario of children's needs and perceptions irrespective of socio-economic groups, girls and boys and young children and adolescents, multiple research strategies and approaches were considered in this research. The children's perception study gave a comprehensive understanding about the needs and perceptions on the research area by children of the major socio-economic groups, girls and boys and young and adolescents. But to know the specific issues related to the existing conditions of playgrounds and parks in terms of quantifiable percentage, a survey on users' views through questionnaire survey was conducted. The assessment of accessibility and equity by using the GIS was conducted to see the level of accessibility and equity in the distribution of playgrounds and parks, which also gave some pertinent insights to the research. The data gathered from these studies were compiled and synthesized, which in turn led to the identification of the factors and issues related to children's outdoor play and recreation provisions. These extrapolated and synthesized factors and issues provided a basis for the planning and institutional arrangement of the children's outdoor play and recreation provisions for Dhaka city. Table 3.1 shows the survey methods, techniques, tools used in the research work.

Table 3.1: Research methods, techniques and tools applied in the research

Research Method	Research Technique	Method of Analysis	Sample Size	Time Frame
i. Children's perception study	In-depth Interviews	Data analysis, reduction and synthesis	138 children	September'04-March '05
	Focus Group Discussions (FGDs)	Data analysis and synthesis	209 children (24 FGDs)	September'04-March '05
ii. Users' views on the existing play and recreation provision	Questionnaire survey	Statistical Package for Social Science (SPSS)	499 children	November'04-January'05
iii.Physical investigation	Direct observation	Statistical Package for Social Science (SPSS)	148 playgrounds, 27 parks and 3 amusement parks	October'04-December'04
iv.Parents' views	Interviews	Data analysis and synthesis	101 parents	July'04-March'05
v.Professionals' views	Interviews	Data analysis and synthesis	10 professionals	October '08-March '09
vi. Preparing maps	Field investigation and validation	Geographical Information System (GIS) Arc Info	148 playgrounds, 27 parks and 3 amusement parks	September'04-February'05
vii. Measuring accessibility	Geographical Information System (GIS)	Centroid Radii and road network measurement of accessibility.	148 playgrounds, 27 parks and 3 amusement parks	March'05-April'05

The research process followed in the research is described in the following section.

3.2 Research Process

A thorough literature review was used to enable an understanding of the importance of outdoor play and recreation for child development and the constraints on the availability of such facilities for children. The literature review also helped to give a better understanding of the importance of child participation, children's preferential and policy factors associated with outdoor play and recreation provisions which in turn helped the research to identify and articulate the knowledge gaps. These knowledge gaps then led to the research objectives, research question, selection of target groups, development of research methods and tools.

An interdisciplinary research process was applied in this research. Children's needs and priorities regarding play and recreation across socio-economic groups, gender and age group are identified and described under the social science disciplines whereas the design and planning guidelines for the development of the play and recreation provisions comprise the applied planning domain. Qualitative techniques such as in-depth interviews and Focus Group Discussions (FGDs) were used to understand children's perceptions about play and recreation aspects. The quantitative questionnaire surveys were conducted with the children who were using the outdoor play facilities. This users' survey provided the understanding the children's views on the playgrounds, parks and amusement parks from users' points of view and also provided some specific views in quantitative term which are very pertinent for planning and designing of play and recreation facilities for Dhaka city. To have an understanding about the children's profile, play pattern, physical, environmental and maintenance conditions of these outdoor play and recreation facilities, direct physical observations were conducted through a checklist. The Geographical Information System (GIS) computer software was used to assess the accessibility and equity of existing play and recreation facilities for the children of Dhaka city. Interviews with parents and professionals were conducted in order to get some very important planning and management related information and suggestions about the planning and management of outdoor play and recreation provisions for children.

The data analysis was done in three phases. First, all these individual studies were conducted to identify different aspects associated with children's play and recreation provisions and their implication on the design and planning of children's outdoor play and recreations in Dhaka city. In the second phase, through analysis, triangulation of different associated factors was carried out and synthesized into factors and issues. In the final phase these factors and issues were further analyzed in order to provide a planning and institutional arrangements for the children's outdoor play and recreation provisions for Dhaka city. The research was done through the following stages:

Identification of the broad research topic;

i. Understanding and internalization of the research topic through informal interviews and discussions with children of different socio-economic groups in cities of Bangladesh;

ii. Refinement of the research topic through literature review and discussion with the research supervisor;
iii. Development of a draft research framework including research objectives and questions;
iv. Detailed research proposal with research objectives, questions, sub-questions and methodology;
v. Observation of outdoor play and recreation facilities through checklist;
vi. In-depth and Focus Group Discussion (FGD) interviews with children across different socio-economic groups, boys and girls and young and adolescent's perceptions about their existing play patterns, their desires and their imaginations about play and recreation.
vii. Questionnaire interviews with the children user groups on their views of the existing play and recreation facilities, the users socio-economic profile, their recommendations etc. from children using playgrounds and parks in Dhaka city;
viii. Questionnaire survey with parents and interviews with professionals to identify factors and issues related to children's outdoor play and recreation provisions for planning and management;
ix. Identification and validation of the existing play and recreation facilities in Dhaka city for plotting of maps for assessing accessibility to and equity of the outdoor play and recreation facilities to children of different socio-economic groups in Dhaka city;
x. Synthesis of children's perception study, users' perspectives, parents' and professionals' views and assessment of accessibility, equity and identification of factors and issues.
xi. Development of planning guidelines from children's perception study, users' perspectives, parents' and professionals' views and assessment of accessibility etc.
xii. Formulation of the institutional arrangement from the factors and issues, and planning guidelines identified.

The research methods particularly the principles and ethics related to research with children are described next.

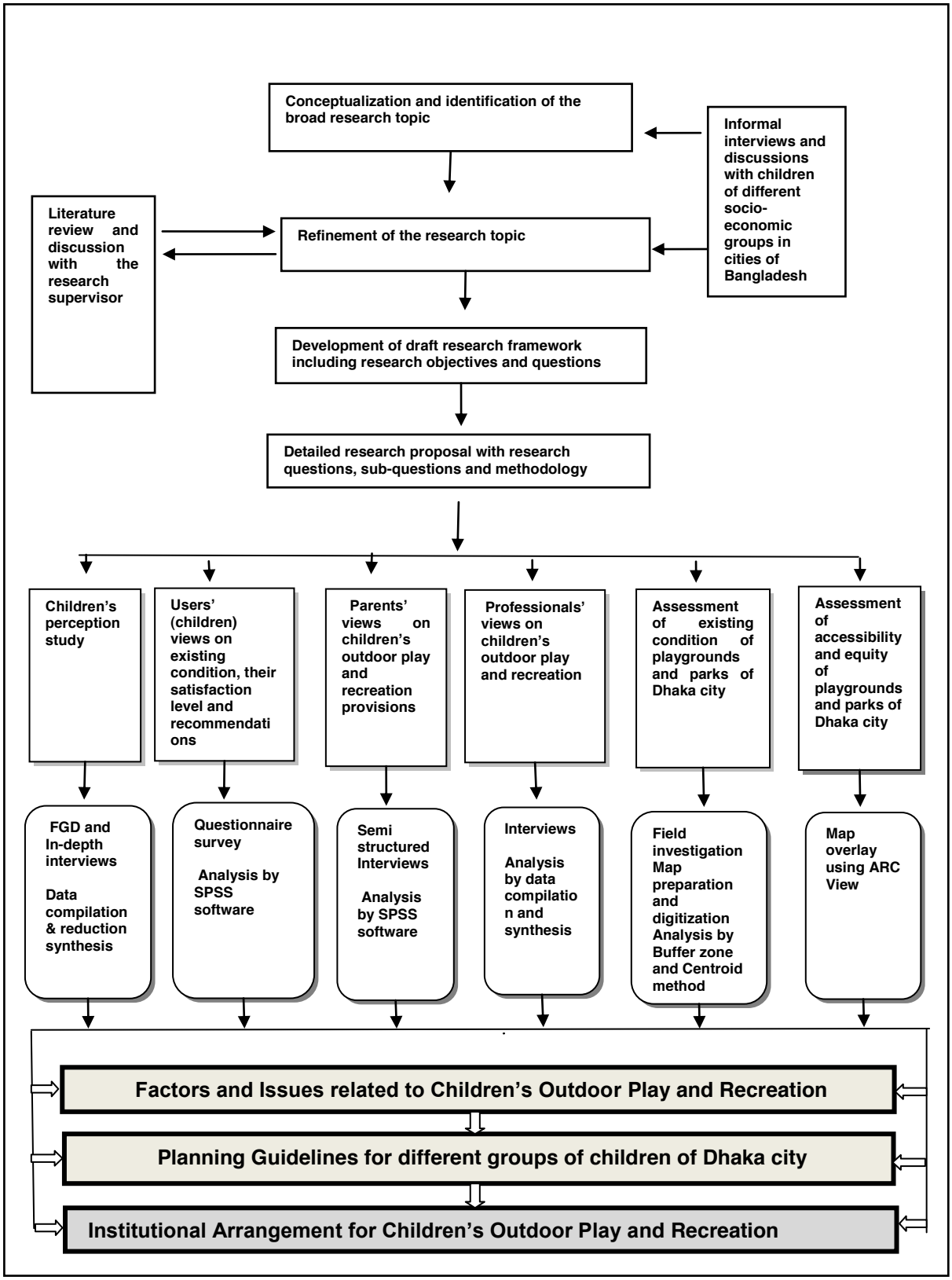


Figure 3.1: Research process

3.3 Research Methods

Listening to the voices and views of children is one of the most neglected aspects of child developmental research. The feelings and thinking of childhood are lost to the adult, only memories of varying degrees of reliability and validity (Greig, and Taylor, 1998) exist. Therefore listening to children is of paramount importance rather than relying on the adult's memory. It may take some time for children to express their thoughts and feelings in an articulated manner but by listening to them one may find some key words which may give the researcher a lot more than he or she thinks. Children's real feelings and thoughts are only possible to get when researchers give them the opportunity to express themselves through listening. According to the Convention on the Rights of the Child (CRC) -children have the right to be listened to and have their views taken into account. In most cases, we only hear what adults think about children, not what children think themselves. The ethical considerations during interviewing the children by the researcher are discussed in the next section.

3.3.1 Ethics in Working with Children

It is important to mention that the United Nations Convention on the Rights of the Child (CRC) talked about a set of principles on children's participation, protection and other child–centered approaches. According to UNICEF's guidelines on ethical issues for children participating in research, the responsibilities lie with the researchers and managers, those involved in the design of research are equally responsible for ensuring that ethical issues are identified and resolved in methodology design. The Evaluation Technical Notes of UNICEF (UNICEF, 2002c) outlines key ethical considerations about whether and how children participate in research. The questions developed for UNICEF managers for monitoring, evaluation and research activities which were originally adapted from Alderson (1995) are attached in Annex 9. Several ethical issues emerged around children's participation in research. The following are the key ethical considerations of UNICEF and the ethical approach taken by the researcher:

Accountability: Research should involve participation of children and children's participation is important where planned interventions are affecting them.

- The very core of this research subject is related to child development. Children were actively involved in data collection process through focus group discussions, in-depth interviews and questionnaire survey.

Protection of children's best interest: Children must not be exposed to risks in any circumstances. These risk factor includes not only the psychological effects on the individual child of participating in the research activity, but the social costs as participating such as negative effects on family and community and misuse of information. Therefore, weighing these risks against possible benefits requires careful judgment. The responsibility to protect children may also need to withhold information from children where that information may place them at risk, even where a child might be willing to participate (Boyden and Ennew, 1997). Researchers should be aware and sensitive to locally established guidelines where research is being carried out. It is also important for researchers to make provision for the protection of children from physical and mental distress, harm, danger or deprivation may arise in the course of the research (Whyte, 2006a).

- Safety and security of the children, particularly for interviewing the slum children, was taken care of by the researcher. The researcher tried to avoid interviewing children in the street or inside a house. In most cases interviews were taken in an open space within a community. The researcher sat with the children in order to create a friendly and open environment. For taking photographs, the researcher tried to avoid focusing on the individual child, instead on the subject's environment. For children at the sports club/centre, the researcher sought permission from the children and the sports authority for taking their photographs.

Informing children: Research managers are responsible for ensuring that children receive the information they need to form and express their views as well as to decide whether they like to express them at all.

- As the subject of the research was found to be very interesting for the children, most of the children happily agreed to participate in the consultation process. For street children sometimes the researcher offered some refreshment through the drop-in centre authority as a gesture to compensate for their time.

Informed consent: This means ensuring that they know that they have the choice as to whether to participate in the research, that they know the right to withdraw from the research at any time if they wish without detriment to their care, and that they know exactly what their role in the research is (Greig and Taylor, 1998). Securing consent from children should generally be witnessed by a third party commonly their parents or supervisor when the age of the children are below eighteen years (Whyte, 2006b). Anonymity should be maintained in the research process. Keeping it anonymous also gives children the chance to express thoughts and feelings that they desperately want others to hear, but would otherwise be unwilling to talk about. Confidentiality is very important to children as they must be asked what they feel about having their names published or photographs taken (Save the Children-UK, 1998). If there is need to take photograph, it is important to ask the children about taking photographs. It is important to explain how the pictures are important and how are they going to be used (Greig and Taylor, 1998).

- Participants were asked about their informed consent and assured that their anonymity would be preserved. To keep it anonymous and to give children the chance to express thoughts freely, the actual questionnaires with identity was separated by coding. The researcher took prior consent with the parents and children for the interview. In the case of street children the researcher explained the content of the questions with the drop-in centre supervisors and fixed the time for interview when they were free. For middle-income and high-income children the researcher informed them about the research with their parents and in most cases interviews were taken at the same time with their parents. For children at the playgrounds, parks and amusement parks, the field investigators informed them about the interview and asked them whether they are willing to give an interview at that time. Sometimes if they were busy with their play or in the middle of a game, they requested to take interview with other children or some other time.

Equity and non-discrimination: Researchers who are involved should ensure that that selection of target group and the processes and methods used in the research should be inclusive.

- Four major socio-economic groups of children (e.g. children living in streets and slums and children from middle and high income bracket), both boys and girls

and younger children and adolescent were considered in the research in order to maintain equity and non-discrimination for the selection of the target groups.

Respect of children and their views: The research methods and process must be selected so that these facilitate children expressing their views freely.

- All the children who participated in the research were on a truly voluntary basis.

Ownership: Children must be informed of the outcome of the research.

- Each child was briefed thoroughly on the objectives, process and end- use of this research beforehand.

Methodological limitations: Methodological limitations of the research must be considered carefully e.g. the potential effects power relations between children and adults. In order to increase children's participation, qualitative methodologies for consulting with children should be considered.

- Qualitative research techniques e.g. in-depth interviews and focus group discussions were selected so that children can express their views freely.

3.3.2 Sample Design

The research was designed for the cross-sectional group of children from four different socio-economic backgrounds. A single stratified sampling technique was considered for the research in order to capture the perceptions of children from different socio-economic groups, age groups comprising younger children of the age five to twelve and adolescent groups of the age thirteen to eighteen years of children of both girls and boys. In order to get a wider perspective on the research subject, children were interviewed from at least four different locations for each group. For parents, a semi-structured questionnaire was considered and survey was conducted with the same parents of the children interviewed. To get professionals' views about the existing condition and future direction for the improvement of the playground and parks, interviews were conducted with the relevant policy makers.

The following four socio-economic groups were considered for the research; i. children living in the streets; ii. Children living in slums; iii. Children from middle and lower middle

income group and; iv. Children from high income group. These four groups represent the major children's groups living in Dhaka city. The Convention on the Rights of the Child (CRC) defines a child as every human being below eighteen (Bartlett *et al.,* 1999). Following the Convention the major target group of the research is considered children from five to eighteen years of age. In the research, both the boys and girls were considered in order to identify specific needs and perceptions for both the genders. The children of age group five to twelve and thirteen to eighteen are considered as young children and adolescents respectively. The age group was selected based on the methodological convenience to cover all the age groups. It was also found that children below the age of five need special research methods and tools for conducting research with this age group.

According to Dhaka City Corporation's (DCC) Ward-wise data for 2005 (extrapolated from BSS-2001), the total population of Dhaka city is 5,202,195. The percentage of target group for this research from five to eighteen years is 36.73 percent (BBS, 2002). Therefore the number of children from 5 years to 18 years in Dhaka City Corporation Areas is approximately 1,910,766.

According to the baseline survey conducted by Appropriate Resources for Improving Streets Children's Environment (ARISE) project, 2001, the estimated total number of street children in 6 major cities (Dhaka, Chittagong, Rajshahi, Khulna, Sylhet and Barisal) is 445,266 and in Dhaka city the number of street children is 334,807, which is about 75% of the total street children living in these six major cities in Bangladesh (ARISE, 2001). The Centre for Urban Studies (CUS, 2006) estimates that 37.4% of the population in Dhaka city live in slums and about 10% belong to the upper income group. Therefore about 53% of children living in Dhaka city are from the middle income bracket. The percentage and numbers of child population (aged between five to eighteen years) of different socio-economic groups are shown in Table 3.2.

Table 3.2: Number and percentage of children of different target groups

Socio-economic Group	Nos. of Children	Percent	Estimated Number of Children	Percentage	Source
Street Children	**334,807**	**-**	**334,807**	**15%**	**ARISE, 2001**
Slum Children	**1,910,766**	**37% children of Dhaka city**	**706,983**	**31%**	**BBS, 2002 and CUS 2006.**
Children from Middle Income Group		**53% children of Dhaka city**	**1,012,706**	**45%**	
Children from High Income Group		**10% children of Dhaka city**	**191,077**	**9%**	
	2,245,573		**2,245,573**	**100%**	

The characteristics of these four socio-economic groups are given below:

Street children: The Appropriate Resources for Improving Street Children's Environment (ARISE) project defines street children as "*Children below the age of 18 years who are living, working, sleeping and playing on the street and are deprived of basic rights are the street children"* (ARISE, 2001, pp. 2). According to the UNICEF definition street children are those who are "*of the street and on the street*". According to the baseline survey conducted by the ARISE project (2001) in six major cities of Bangladesh, more than 55% of the street children are illiterate and 45% can only read and sign only. The study also found that 69% of the street children are involved in some kind of employment in the informal sector. They typically work as day labourers, workshop/mechanical helpers, petty business holders, van/rickshaw pullers, small vendors, hawkers, beggars, roadside restaurant/hotel attendants, vagrants, etc. This 69% of working children had an average income of Tk.32 or GBP 0.29 (average exchange rate in 2001 was 1 GBP = 110 BDT) per day only. Socio-economic reasons such as poverty, landlessness, unemployment, river bank erosion, broken families, family feud, floods, cyclones, etc. are the main push factors for them to come to the city.

Children living in slums: There are about 5000 slums in Dhaka city (CUS, 2006). About 80% of these slums are situated on public lands in Dhaka city and do not have the minimum urban amenities. They also lack in basic infrastructure such as water, sanitation, electricity, etc. (UNICEF, 2003a). The slums of Dhaka city are characterized by high population density, air pollution, noise, indiscriminate dumping of garbage, poor environmental sanitation, water logging etc. Very few children living in slums are enrolled

in schools. The majority of the slum children are also involved in informal employment like shop/hotel assistants, factory workers, garbage collectors, hawkers, domestic helpers, bus helper etc. (DISA and UCEP-Bangladesh, 2005). According to a study conducted by Centre for the Urban Studies, the monthly household income below Tk. 5,000 or GBP 45.5 per month is considered as the poor family (CUS, 2006).

Children from middle and lower middle income groups: More than half of Dhaka's population belongs to this group (53%). Most of the children of this group are living in un-planned spontaneous areas or public housing estates/colony and belong to families with monthly income of BDT 5,000 or GBP 45.5 to BDT 47,447 or GBP 431 per month (BBS, 2007). There are no or minimum facilities for outdoor play and recreation in these unplanned areas. However, there are some public housing areas for this group, which have better facilities for play.

Children from high income group: This group is generally living in the planned residential areas of Dhaka city in apartments, in most cases, without any playgrounds and parks. According to the report of the household income and expenditure survey 2005, income of the top 5% household of urban areas is BDT 47,447 or GBP 431 per month (BBS, 2007). Therefore, children from high income group are considered with minimum family income of GBP 431 per month.

Two age groups are considered for the research: five to twelve and thirteen to eighteen. It has been found that for leisure behaviour thirteen years of age is considered as the transition age because leisure activities for children aged between 10 and 12 years are more parents driven whereas 14 and 15 year-olds are mostly influenced by their peers for their leisure activities (Zeijl *et al.,* 2000).

The Centre for Contemporary Cultural Studies (CCCS) researchers found from their studies that the leisure behaviours of boys is different from girls (Zeijl *et al.,* 2000).

To have more in-depth understanding of the girls and boys, younger and adolescents among the four major socio-economic groups, children have been subdivided into sixteen sub-groups, presented in Table 3.3 below:

Table 3.3: Sub-groups of the research

i. STREET CHILDREN	ii. SLUM CHILDREN	iii. CHILDREN FROM LOW/MIDDLE INCOME	iv. CHILDEN FROM HIGH INCOME
Group -1 5-12 Year boys	**Group -5** 5-12 Year boys	**Group -9** 5-12 Year boys	**Group -13** 5-12 Year boys
Group -2 5-12 Year girls	**Group -6** 5-12 Year girls	**Group -10** 5-12 Year girls	**Group -14** 5-12 Year girls
Group -3 13-18 Year boys	**Group -7** 13-18 Year boys	**Group -11** 13-18 Year boys	**Group -15** 13-18 Year boys
Group -4 13-18 Year girls	**Group -8** 13-18 Year girls	**Group -12** 13-18 Year girls	**Group -16** 13-18 Year girls

Different types of research techniques and tools used in the research are discussed in the following section.

3.3.3 Research Methodology

i. Children's Perception Study

To understand children's perceptions across the age groups, gender and socio-economic groups, in depth interviews and focus group discussions were conducted during September '04 to March '05. In total 347 children between five and eighteen years, girls and boys from the four major socio-economic strata, were consulted individually and in groups. These tools also gave them the opportunity to express their views in their own words which are not possible to capture with quantitative statistical assessment tools. Children were mainly asked three questions related to their perceptions about play and recreation, which are:

a. How do you spend their leisure time in Dhaka City?
b. How do you want to spend their leisure time?; and
c. How do you imagine or dream about the "Best Ways" of spending their leisure time?

In-depth interviews were conducted with 138 children individually and twenty four Focus Group Discussions (FGDs) were conducted with 209 children from the four socio economic groups (children from high income, middle income, children living in slums and streets). Table 3.4 presents the number of children and research tools used in the in-depth and focus groups discussions. For each group, at least one FGD was organized (except for young boys and girls from high-income group). In order to get diverse views, four locations at least 2/3 miles apart from the location of the FGD with the same socio-economic group were chosen to achieve greater reliability. The main researcher facilitated all the FGDs. A research assistant with qualitative research training assisted

the main researcher as a note taker. For children living in slums and streets, the researcher went through different projects by UNICEF and NGOs. And prior to the FGD, the researcher sought permission to work with the children of that particular centre. Prior to the FGD, an informal discussion was held with the group in order to break the shyness of the children. For interviewing children from middle and high income groups, personal channels were used such as familiar locations where friends and relatives were residing and also talking to the parents for permission to conduct the FGD with their children.

The research deals with children from the five to eighteen years age-group of the four major socio-economic groups living in Dhaka city. To understand the implications of physical environment, gender and economic condition on the children's perceptions about their play and recreation, separate in-depth consultations were conducted with girls and boys of different socio-economic groups. The research deals with the following four target groups:

Table 3.4: Number of children discussed in in-depth interviews and focus group discussions

Target Group	Street Children		Slum Children		Children from Middle Income		Children from High Income		Total
	In-depth Interview	FGD	In-depth Interview	FGD	In-depth Interview	FGD	In-depth Interview	FGD	
Young boys (5-12 years)	10	16 (2)	15	25 (3)	7	10 (1)	12	-	95 (6)
Young girls (5-12 years)	4	8 (1)	16	39 (4)	7	10 (1)	5	-	89 (6)
Adolescent boys (13-18 years)	18	30 (3)	6	19 (2)	8	8 (1)	8	8 (1)	105 (7)
Adolescent girls (13-18 years)	3	6 (1)	8	16 (2)	5	8 (1)	6	6 (1)	58 (5)
TOTAL	35	60 (7)	45	99 (11)	27	36 (4)	31	14 (2)	347 (24)

Data analysis process

The qualitative children's perceptions study generated a large quantity of data. Each transcript was coded according to age group, gender and socio-economic group. A significant amount of work has been done to prepare the Excel spreadsheet with the codes for different variables derived from the questionnaire. After coding, all the answers of the three questions were presented in a spread-sheet with frequencies. As a scale of the frequencies, the researcher used "mostly" when the percentage of the same answers is more than 80 percent, about "half" when the percentage is more than 40-55 percent,

“one third” “quarter’ and “few” when the numbers of same answers are 30-40 percent, 20-30 percent and less than 10 percent respectively. In qualitative research, sometimes only a single answer gave a great importance for further exploration and validation of data. The analysis of textual data required much time and in each step validation was required with the different groups. The researcher had to synthesize all the answers considering the importance of getting different views with in-depth analysis (Knap and Propst, 2001). A considerable amount of data reduction and synthesis was needed for each of the steps of data compilation and analysis. For the data analysis process, the researcher adopted the qualitative data analysis framework developed by Miles and Huberman, 1994 (NRT, 2004) to describe the four major phases of data analysis: data reduction, data display, conclusion drawing and verification.

The data reduction process followed the process of selecting, focusing, simplifying, abstracting and transforming the data from the answer sheets. First, the huge mass of data was organized and meaningfully reduced or reconfigured. It was important to know about which aspects of assembled data should be emphasized, minimized, or set aside completely. The researcher needed to decide which data were to be singled out for description according to the principles of selectivity.

Data display was the second level of the data analysis process followed by the researcher. Data display provides an organized, compressed assembly of information that permits the researcher to draw conclusions. The researcher developed the matrix with the sixteen sub-groups for the three questions asked to them. This data display in the form of matrices was very helpful in identifying the children’s perceptions on their existing play and recreation pattern, their desire and imagination of the best way to spend their leisure time. Conclusion drawing involved stepping back to consider what the analyzed data meant and to assess their implications for the questions. Revisiting of data several times to cross check and verify the emergent conclusions was the primary objective of this stage of data analysis.

Through verification validity of the data was tested. Here validity encompasses a much wider concern than the quantitative data analysis as it bears on whether the conclusions being drawn are credible, defensible and able to withstand alternative explanations.

Technical rigour in analyzing the data is a major factor in the credibility of qualitative findings (Patton, 2002). As the researcher is trained in qualitative data analysis, the researcher followed a very systematic data reduction, data display, conclusions drawing and verification process in this research. The following steps were followed for the qualitative data analysis:

i. Categorizations and sorting: The initial categorizations were shaped according to the three questions asked to the children. Then, all the questionnaire/answer sheets were grouped into 16 socio-economic groups.

ii. Data entry in a spreadsheet: All the answers were put into the Excel spread-sheet against the serial number, income group, target group (16 sub-groups) and questions.

iii. Data reduction and compilation: Here data reduction was done in two phases. First, all the qualitative data from the in-depth interviews and FGDs were analyzed using content analysis and frequencies of response were counted for each discussion questions. In the second phase of data reduction, preparation of narrative analysis for each of these three questions with respect to different socio-economic groups, age and gender was done.

iv. Data display: Data were displayed in the following steps:

- Firstly matrices with sixteen groups for the three questions were presented in Annex 1a, Annex 1.b and Annex 1.c.
- Secondly the summary of children's perceptions on the existing play and recreation pattern, desire and imagination were presented in a narrative form in Annex 2.
- Individual socio-economic group views, boys and girls' views and young and adolescent children's views on the existing leisure patterns, their desire and imagination were presented in Sections 4.2.1, 4.2.2 and 4.2.3 respectively.

v. Conclusion drawing and verification: Analysis and synthesis of views on existing patterns, planning guidelines and imagination of play and recreation across different socio-economic groups, gender and age of children were presented as key findings in Chapter 4.3. Finally, preparation of a design and planning matrix (Annex 3) was derived

based on the three matrices presented in Annex 1.a, 1.b, 1.c and 2. These matrices were further developed as planning guidelines for the sixteen sub-groups in Chapter 9 after synthesis and analysis of data identified from children users' views (chapter 5), accessibility analysis (Chapter 6) and parents and professionals' views (Chapter 7).

ii. Users' views on existing condition of the outdoor play and recreation provisions

To understand users' views, a questionnaire survey with the playground, park and amusement park users was conducted. A sample of minimum 10% of the children found during the interview time (3 p.m. - 6 p.m.) in playgrounds, parks and amusement parks were interviewed. The sample size of the survey was considered to be about 10% of all the children who were present during that time. But to avoid similar answers, a maximum of ten (in cases where more than 100 children were present in a particular play space) and all children, if the number of children is less than five, were included in the sample. In total, 499 children between age groups of five to eighteen years were interviewed in 102 playgrounds, 15 parks and all the three amusement parks in Dhaka Metropolitan City during November – January 2005. Children of age groups 5-18 years from the four major socio-economic groups i. street children; ii. Children living in slums; iii. Children from low income groups; and iv. Children from high income group were considered for the survey.

Interviews with pre-coded questionnaires were conducted with the children during play at the playgrounds, parks and amusement parks in Dhaka city. Before finalization of the research tools, a pilot field testing was conducted. Modifications in the discussions points were made based on the results of the field test. Children's views in the natural play environment made it possible for the research to gain a more comprehensive understanding about their preferences, problems with the existing conditions and opportunity to verify some of the information through observations and discussions with the children. Questionnaires for playgrounds, parks and amusement parks are attached in Annex: 5a, 5b and 5c respectively.

Basic analysis, table and chart generation were done through Statistical Package for Social Statistics (SPSS) software. Also Microsoft Excel was used to generate tables and diagrams. Finally, Microsoft Word MS used to present the tables and diagrams in the report.

iii. Direct observations

Direct observations of all the playgrounds, parks and amusement parks were made. These observations of playgrounds, parks and amusement parks and the users of these facilities provided the researcher with an opportunity to collect information on the physical, environmental and maintenance conditions of the outdoor play and recreation facilities as well as the behavioural aspects of the children in the natural play settings. By directly observing these facilities and children, the researcher developed an understanding of different aspects of the research in a wider context. The field investigations were conducted by a group of Master's level students of the planning department of Bangladesh University of Engineering and Technology (BUET) under the guidance of the researcher during October 2004- December 2004. The data collection for the field investigation was conducted by a field investigation check list. The check list for the direct observation is attached in Annex: 4.

iv. Parents views on children's outdoor play and recreation provision

Pre-coded questionnaire surveys have been conducted with the parents of the different socio-economic groups to understand their views about the play and recreation aspects for their children. Parents' opinions on the physical condition of the playgrounds and parks and the priorities to be considered to improve the condition etc. were the major questions to the parents. The questionnaire for the parents' survey is attached in Annexure: 6. A pre-coded, semi-structured questionnaire survey was conducted with 101 parents during July 2004 to March 2005.

v. Key informant interviews with expert professionals

Interviews were taken with the expert professionals on the existing condition of outdoor play and recreation facilities, design considerations of play space, children's participation, and institutional set-up for the children's outdoor play and recreation provisions. The issues related to roles and responsibilities and guidelines and standards needed for the implementation of children-led, community based play initiatives were also discussed. The interview guideline for the professionals is shown in Annexure: 7a. Interviews with about ten professionals from different agencies including RAJUK, Dhaka City Corporation, UNICEF, Institute of Architects, Bangladesh (IAB), Bangladesh Institute of Planners (BIP) were taken (Annex: 7b) on the different aspects of play and

recreation provision for Dhaka city. Most of the interviews with professionals were taken during October 2008- March 2009.

vi. Preparation of maps of outdoor play and recreation facilities in Dhaka city

There were no standard and comprehensive records and maps of outdoor play and recreational facilities in Dhaka city, which is a prerequisite to conduct any scientific research on the spatial characteristics, pattern, accessibility, equity etc. of the play and recreational facilities of Dhaka city. Moreover, maps were used for analysis of accessibility and equity of outdoor play and recreational facilities in Dhaka city. The present studies therefore validated and plotted all the existing open spaces used for playgrounds, parks and amusement parks in Dhaka city in order to examine extensively the physical, environmental, operational aspects of the play and recreation facilities in Dhaka city. An extensive field investigation for the preparation of the maps of Dhaka city with outdoor play and recreation facilities was carried out by an eight-member team comprising an urban planner and Master's level planning students under the supervision of the researcher during September 2004 to February 2005. Different maps with detailed road networks and all the ninety wards and zone boundaries were collected from Dhaka City Corporation as a base map for the exercise.

All the parks, playgrounds, amusement parks, stadiums, cinema halls and other recreational areas were identified through an extensive field survey (Annex 8). Although some major parks and playgrounds already existed in the ward base maps, the vacant lands were checked by the investigators to identify whether any major play or recreational activities took place there. A list of cinema halls was collected from the Bangladesh Film Development Corporation (BFDC). In addition, parks, playgrounds, stadiums and cinema halls, other recreational and historic places, e.g. Ahsan Manzil, Lalbagh Fort etc., National Botanical Garden, Zoo etc., were also identified in the maps through field survey.

All the maps were prepared using ArcView GIS 3.2 and PC Arc/info 3.5.1. On-screen digitization, creation of different themes (e.g. road, ward boundary, zone boundary, parks, playgrounds, water body, cinema hall, etc.), adding attribute data with spatial data into theme table, partial analysis of attribute and spatial data, buffer area creation, layout

preparation for printing etc. were done in ArcView GIS 3.2. Typology of buildings, correction of themes/coverage (e.g. removing additional lines/dangles), transformation of maps into BTM (Bangladesh Transverse Mercator) projection system, overlay of different themes by intersection etc., were conducted in PC ARC/Info 3.5.2. ArcView projection Utility Wizard was used to transform the themes with BTM projection system into degree-decimal system.

vii. Accessibility assessment

One simple way to evaluate accessibility is by straight line distance. For example, find out how many customers live within half a mile radius of a site using a simple circle. However considering people travel by road, this method would not reflect the actual accessibility to the site. Different types of accessibility measures are used in urban planning (Lotfi and Koohsari, 2009; Talen and Anselin, 1998), for example:

- Container measurement is used to measure the number of green space in each neighbourhood unit;
- Coverage measurement measures the number of schools within certain distance from residential centroid blocks;
- Minimum distance measures the distance from neighbourhood units centres to nearest playgrounds;
- Travel cost is measured by average distance between centroid of census blocks and all neighbourhood facilities; and
- Gravity measurement is used by all neighbourhood facilities divided by distance.

However, for the measurement of accessibility of parks and playgrounds, the two methods of representing accessibility, “centroid radii” and “network analysis” are found the most appropriate ones. These two measurement techniques were applied to assess the accessibility of outdoor play and recreational facilities for the children of Dhaka city. The centroid radii technique was applied using the *Create Buffers* command under the theme menu of ArcView. A distance of half mile was considered according to National Recreation and Park Association’s (NRPA’s) standards. The boundaries between the buffers of each park and playground were dissolved to create one seamless buffer for the entire Dhaka city.

Service networks are the accessible streets within a certain distance or travel time of a site via the road networks. For example, all accessible streets within a half a mile of a recreation site via the road network. One can use this service networks to see what is alongside the accessible streets. This analysis also can be used to identify how many people, how much land, or how much of anything else is within the neighborhood (Nicholls and Shafer, 2001). Under this study Network Analyst of ArcView GIS is used to compute the **service networks** or **service areas.** The network analysis technique also involved the specification of the travel time allowed for each park or playground. This was measured outwards from each park and playground's specified points of access along the surrounding streets. Service areas identified the area that covers the accessible streets within a certain travel time or distance from a site. Here the service areas are represented by polygon.

For this analysis road networks and site location of each recreational place within the study area were used. Each road on the ground is represented as a single line in the theme. The entry point of each recreational place was selected to develop the site location theme. The next step is to add two fields LABEL and REPORTCOST in the Attribute Table of the Site Location theme. Then to store the names or descriptions in the LABEL field and Cost Values in the REPORTCOST field were used. In this case, the values of 0.5 mile need to be added for each site location in the REPORTCOST field. There is a given/assumed cost/time to travel each km of road and a maximum cost/time that is considered affordable for the facility (park or playground). So points on the road network are within this cost/time distance are included in the accessible zone for the facility.

3.4 Conclusions

The research was an attempt to involve children in the research, to listen to them directly. It also shows that children can be active and very useful partner in the research environment if a free, friendly and respectful environment is created. To understand the broad aspects of children's play and recreation, a holistic approach was adopted using different techniques and research tools covering multi-discipline e.g. child development, urban planning. The tools and techniques used in the research were diverse in nature and touched multiple field of discipline. The research techniques used in the research

were a combination of quantitative, qualitative and accessibility assessment tools etc. A wide range of analytical techniques were used e.g. focus group discussion, in-depth Interviews, direct observations, structured and semi structured questionnaire surveys, Geographical Information System (GIS), Statistical Package for Social Science (SPSS) etc. This was a multidisciplinary approach to get more holistic views of children and outdoor play and recreation in Dhaka city.

The children's perception is not common aspect in the field of research particularly in Bangladesh. In order to apply the most appropriate tools, the researcher had to field test and train herself about the qualitative methodology and procedures, and had to alter the course of application of the research tools particularly for children living in streets and slums. To get instant reaction and views on the physical, environmental and maintenance of the playground, parks of Dhaka city, children who used these facilities were interviewed. This questionnaire survey with children was also useful to get their views on other aspects of outdoor play facilities. There were no comprehensive maps available for the outdoor play and recreation facilities of Dhaka city. Without these maps, it was not possible to assess the accessibly or spatial distribution of these playgrounds and parks of Dhaka city. Therefore, in order to conduct these assessment and analysis, a through field investigation and mapping exercise was conducted under the research.

CHAPTER 4: CHILDREN'S PERCEPTIONS

4.0 Introduction

The previous three chapters (chapter 1, 2 and 3) were focused on building up the foundation of the research work through gathering knowledge about the existing condition of the play and recreation provisions in Dhaka city; also the benefits and prevailing problems of children's play and recreation, child participation and it's linkage with child development. The previous chapter also explored the body of knowledge related to children's preferential and policy factors related to children's play and recreation from other existing research works. The different research tools and methodology adopted for conducting this research including doing research with children and ethical issues associated with the research work were also described in the previous chapter. From this chapter and onwards are presented the different survey data and analysis done under the research work.

This chapter presents the analysis of children's perception study to take into cognizance children's perceptions about their play and recreation aspects. The analysis of children's views about their existing outdoor play and recreation behaviour, their desires and imagination on how to spend their leisure gives a sound understanding about their needs, preferences and their dreams across socio-economic background, gender and age of the children. This chapter is designed to explore children's perception about their play and recreation (Objective 1).

Then children's views were further analyzed in a matrix according to the three parameters of socio-economic groups, gender and age of the children to identify children's preferences for the planning of outdoor play and recreation provisions for Dhaka city. Later on, this analysis and interpretation of children's perception across the socio-economic groups, gender and age helps to identify factors and issues (Objective 3) and the planning guidelines associated with children's outdoor play and recreation from children's point of view (Objective 4) and helps to formulate the planning guidelines (Chapter 9). The individual group views about children's existing leisure patterns, their wishes and dreams regarding their play and recreation is described in the matrices in the next section.

4.1 Individual Target Groups' Views

The children were asked the following three questions related to their perceptions about play and recreation, which are:

- How do children spend their leisure time in Dhaka City?
- How do children of Dhaka City want to spend their leisure time?; and
- How do children imagine or dream about the "Best Ways" of spending their leisure time?

These questions were set in order to make them interesting to the children. Also these questions were articulated in a simple and direct way so that children felt comfortable and open to answers. In this respect the researcher applied her skills towards the

understanding of the child-friendly and qualitative research skills, which she acquired through her long experience working with children, research training during PhD, conducting research using both the qualitative and quantitative tools in the areas of child development, urban infrastructure development and long experience of city planning using the GIS tools. Being well conversant with all these research tools and her working experience with children, the researcher showed a sound understanding about the synthesis and segregation of data at several stages in order to get the inner meaning of the factors and issues related to children's play and recreation provisions.

The summary of children's views on existing patterns, desires and imagination of play and recreation across different socio-economic groups, gender and age of children is presented next.

4.2 Children's Views on Existing Patterns, Desires and Imagination

Children's views on existing pattern, desire and imagination of play and recreation are presented in matrix form in Annex 1.a, 1.b and 1.c respectively. The summary of children's views on existing pattern, desire and imagination of play and recreation across different socio-economic group, gender and age of children is presented in a narrative form in Annex 2. These narrative analyses are further analyzed and synthesized in the Section 4.2.1, 4.2.2 and 4.2.3 for each of the three questions according to socio-economic groups, gender and age of the children respectively.

The following analysis of the existing leisure patterns, desires and imagination according to different socio-economic groups (Section 4.2.2), gender (Section 4.2.3) and age groups (Section 4.2.4) gives insights about the differences of views of these target groups. This analysis also helps the research to identify the factors and issues to be considered for the development of children's play and recreation provision for Dhaka city.

4.2.1 Individual Socio-economic Group Views on Existing Leisure Pattern, Desire and Imagination

Question 1: How do children spend their leisure time in Dhaka city?

A. Children living in streets

Most of the children of this group were interviewed at the drop-in centre, where the street children can take rest and watch TV and play with other children. **Watching TV** is the predominant means of recreation for this group. Among all the four groups watching children's programmes, movies, dramas, magazine programmes are the most favourite. They watch the television 3/4 hours a day. **Sleeping, playing i**ndoor games like ***carom, ludo*** **(board game), hide-n-seek, drawing pictures, moving around with their friends** are the leisure time activities of the group. Apart from playing indoor games, the boys also enjoy playing outdoor games. Many of them mentioned that they p**lay football, marbles etc. at the park or any open space near their work place, home or drop-in centre.** Some of them spend their leisure time sitting **at the river bank or zoo.**

B. Children living in slums

Outdoor games are the major recreational activities of the boys group. **Playing cricket, football** are the common games among the boys. Young girls like to play a **variety of games, like *kuth-kuth, golla chut, phul- tokka,* skipping, playing h**ide and seek, ***marbles***, ***dangguli*** or simply running around with their friends in front of their house or any vacant space close to their houses as mentioned by this group. **Watching television, doing household chores** and **taking care of their siblings, sleeping at home** during their leisure time are the leisure time activities for this group. In one of the slums situated along the train line in Dhaka city, adolescent boys are found **playing dangerously on a real moving train and playing /swimming** in lakes and rivers adjacent to their slums even though they do not know how to swim.

C. Children from middle income group

Watching TV is the predominant recreation for all the children from middle income group except the adolescent boys. Most of the adolescent boys play **outdoor games like cricket, football, badminton, reading story books, drawing,** playing **computer games, riding bicycle, listening to music, board game (*ludo)*,** sitting idle or sometimes **gossiping or chatting with friends, p**laying with friends on **street and hanging around with friends** are the common leisure time activities for this group.

D. Children of high income group

Watching television is the most predominant means of recreation mentioned by all the four groups particularly for adolescent girls, who are used to watching television 7 to 8 hours a day and the adolescent boys watch television 1 to 2 hours a day. **Playing computer games,** reading **story books and comic books** are the common recreational activities for this group. **Playing with toy cars and dolls** are the indoor games played at home by the small boys and girls respectively. Playing **outdoor games like cricket** is also mentioned by some of the boys of the high income group.

Question 2: How do children of Dhaka City want to spend their leisure time?

A. Street Children

Big, clean playgrounds to play football, cricket and other sports are the most desired ones for the boys. All the four groups are interested going to **amusement parks** for their recreation. Playing **hide-n-seek, visiting fairs, having** more play tools like **bat, ball** and visiting distant places like **sea beaches at *Cox's Bazar* and the Shrine at Sylhet** are also mentioned as their favourite places.

B. Children living in slums

Proper playgrounds are the most desired facilities for the boys' groups. **Playgrounds free from any obstacles (trees)** where children can play freely and **playgrounds with seating arrangements** are the most preferred ones by the young and adolescent boys respectively. Children of this group wanted to go to **amusement park**s during their leisure time. **Football and cricket** are the most desired games adolescent boys wanted to play at the playgrounds. **Visiting parks, having their own television,** having **more friends in their areas, and** more **play accessories (*carom, ludo*, ball, badminton racket etc.)** at their drop-in centre are the desires of the children living in slums.

C. Children from middle income group

Children of this group, except the adolescent boys, want to go to a **park** for their recreation and during their leisure time. The most desired thing for recreation is a **playground** for the adolescent boys group. All the **amusement parks** in and outside Dhaka (**Fantasy Kingdom, Wonder land, *Nandan* Park and *Shishu* park)** are the

most favourite amusement parks all the groups wanted to visit. Playing accessories like **see-saws, slides and swings, play facilities like gymnasiums, video games shops, exercising and aerobics centres, library, visiting shopping mall, sports centre/club, moving around with friends** are the most desirable things mentioned by the children of this group.

D. Children of high income group

Visiting **parks and amusement parks** are the most desired recreational activity for all the four groups. They also wanted to have **more friends in their apartments or close to their living areas. Gymnasiums, swimming pools, video libraries**, **music school, reading comic books, cultural centre, cyber café, home theatre, shopping malls with play facilities, badminton, basket ball, playground** or **netted roof top for playing cricket, organization of cricket club** are mentioned by this group as their most desired leisure time activities.

Question 3: How do children imagine or dream about the "Best Ways" of spending their leisure time?

A. Children living in streets

Visiting the **amusement park, the zoo and** the sea beach at ***Cox's Bazar*** are their dream places to visit. Other places they imagined for their recreation are visiting the **Shrine of *Saint Shajalal* at Sylhet, "Victoria Park", "*Nowab Bari Park*", "*Ramna park"*, the museum, "*Shafipur Ansar Camp*" and the "Fantasy kingdom" *Chittagong, Sundarban, Sylhet, Rangamati, Madhupur, Pabna*** etc. **Going for picnic** is also mentioned by the groups. H**aving ice-cream and eating Chinese food at the restaurant free of cost, h**aving their **own television and riding by their own car, Jeep, trains, going abroad are** also in their dreams. Also **visiting their village,** a **big pond where they can swim, ride boats** etc. are the dreams mentioned by this group.

B. Children living in slums

Visiting amusement parks and zoos are the two most desired places to go to for children living in slums. Other than these two places, visiting the **museum, fairs, the airport, the Parliament building, "Savar Martyrs monument", "Martyred Intellectuals Monument" and** going for **picnicking, the *Ashulia* water front etc. are**

also their dream places. Having more playing **accessories like swings, sea-saws and slides, h**aving **playgrounds, h**aving **television and g**oing back to **the village** are the dream for this group. One young girl mentioned "my dream is to create a **garden with fruit trees in the slum**". H**aving a bicycle, a library** are dreams of children living in slums in Dhaka city.

C. Children from middle income group

Visiting amusement parks like "Fantasy Kingdom", "*Nandan* Park" and "Wonder Land", having a **playground** are the dreams of this group. **Visiting *Cox's Bazar*, Zoos, the museum, having a cleaner and better space for playing, g**oing to **fun fairs, book fairs and river banks** are also mentioned by many of the children of these groups as their dream. Having a **big playground, a big pond,** indoor play area, going for a **Rickshaw ride during good weather** are the dreams for this group of children. Having a **safe and crime free environment** outside their home and more **open areas and less buildings** are also mentioned by this group as their dream.

D. Children from high income group

Visiting **amusement parks like "Fantasy Kingdom", "Wonder Land", "Sports Zone" "Fantasy World", g**oing for **shopping with mother and visiting friends' houses, v**isiting **adventurous places** are mentioned as their dreams. Playing **cricket, musical instruments and having a large play field, a basket ball court, badminton court, libraries, swimming pools, eating out at "pizza hut", going to riversides and picnicking are** also mentioned by many of these groups. One mentioned about going to an **island.** Some of them mentioned about going to **quiet places** and other historical places, **tea garden, Sea-beach, forest etc.** Some of them dreams going to **India (Darjeeling), Malaysia, Singapore** etc. **Converting all the vacant lands** into park in their community is also mentioned as their dreams.

4.2.2 Boys' and Girls' Views on Existing Leisure Patterns, Desires and Imagination

Question 1: How do children spend their leisure time in Dhaka City?

A. **Boys**

Outdoor games are the major recreational activities of the boys' group. **Playing cricket, football, badminton, riding bicycle, listening to music, hanging around with**

friends, marbles, ***dangguli,*** **playing computer games, playing with toy cars,** simply to **running around with their friend**s in front of their house or any vacant space close to their houses are the common leisure time activities for boys. Boys also spend their leisure time by **watching TV, playing *ludo* and carom with friends,** sitting **at the river bank or zoo,** going **to say prayer**. Boys living in streets and slums are used to **sleeping at home** during their leisure time. Boys are also found **playing dangerously on a real moving train.**

B. Girls

Watching TV is the predominant means of recreation for the girls, particularly adolescent girls who are used to watching television 7 to 8 hours a day. Indoor activities like playing ***carom, ludo*** **(board game), hide-n-seek, drawing pictures, reading story books & comic books, listening to music and walking on the rooftop, chatting with friends over telephone, playing with dolls** are also some of the activities of the girls. Young girls living in slums, like to play a **variety of local games, like *kuth-kuth, golla chut, phul- tokka* etc.** usually in the streets or in front of their houses. Girls in general do not have any outdoor play activities. The adolescent girls' groups of lower income families have very **limited leisure time.** Most of the adolescent girls sit idle at home as they are not allowed to go outside because of safety concerns. Many girls also mentioned that they have to do **household chores** and **take care of their siblings** during their leisure time. Girls from middle income group spend their leisure time sitting idle or sometimes **gossiping or chatting with friends.** Adolescent girls mention that they **sleep** when there is nothing to do.

Question 2: How do children of Dhaka City want to spend their leisure time?

A. Boys

Big, clean, proper playgrounds to play cricket, football and other sports are the most desired things for the boys. Boys are also interested in going to park and **amusement parks** for their recreation. Visiting g**ymnasiums, swimming pools, video libraries**, **cultural centre, cyber café, home theatre, music school, video game shops, reading comics and playing on netted roof top are their desired ones to spend their leisure time.** They also wanted to have more **friends in their areas and hangings around with friends** are the most preferred recreation for the boys group.

Visiting distant places in the country like **sea beaches at Cox's Bazaar and the Shrine at Sylhet** are also mentioned as their favourite places by some of the adolescent boys. They also wanted to have **sports centre/club** where they can play safely.

B. Girls

Visiting **parks and amusement parks** are the most preferred recreational activities for girls. H**aving their own television and visiting fairs** are the most wanted things among the girls of lower income group. The girls' particularly from the lower income group, mentioned that they don't have any leisure time for themselves; they wanted to have **more leisure time**. Girls wanted to have **separate playgrounds and parks** where only girls are allowed to enter. The girls' group wanted to have more **play accessories like see-saws, slides, swings, carom, *ludo*, ball, badminton racket, and play facilities like, gymnasiums, swimming pools, video libraries**, **music school, reading comic, cultural centre, cyber café, home theatre, library, exercising and aerobics centres etc.** They also wanted to have **more friends in their areas; moving around with friends, playing hide-n-seek** are mentioned as their most desirable things for recreation. **Badminton and basket ball courts** in front of their house are also wanted by the girls. Some adolescent girls wanted to have **separate sports club only for the girls**.

Question 3: How do children imagine or dream about the "Best Ways" of spending their leisure time?

A. Boys

Visiting amusement parks, zoos and Cox's Bazaar are the three most desired places to go to for all the groups. Visiting the **museum, fun fairs, book fairs and river banks, the airport, the assembly building, "Savar Martyr monument", "Intellectuals Martyred Monument" and the *Ashulia* water front** etc. are also their dream places. Boys' groups mentioned many places outside Dhaka City like **Chittagong, *Sundarban,*** *Sylhet, Rangamati, Madhupur, Pabna* etc. as their dream places to visit. Going for picnic, **visiting libraries, swimming pools, playing musical instruments, eating out at "pizza hut", visiting friend's house, having ice-cream and Chinese food at the restaurant free of cost, going back to villages, visiting river-side, island, big pond where they can swim etc.** are all mentioned as their dreams. **Having playgrounds for playing cricket and visiting adventurous places are** mentioned by the groups as their

dreams. Boys also wanted to have more playing **accessories like swings, see-saws and slides. Riding Jeep, car, train, bicycle, riding by their own cars, boats are** mentioned as their dreams by the boys group.

B. Girls

Visiting amusement parks, zoos and Cox's Bazaar are the three most desired places for girls. Other than these places, visiting the **museums, fairs, the airport, the Parliament building, monuments, water fronts, l**ibraries, **swimming pools, eating out at "pizza hut", g**oing to **picnic, shopping, visiting friends houses, fun fairs, book fairs etc**. are also in their dreams**. Going to historic places, g**oing back to **the village, h**aving **television, having own car, having a rickshaw ride during good weather, having ice-cream and Chinese food at the restaurant free of cost are in the imagination of** girls. Having a **safe and crime free environment** outside their home and more **open areas and less buildings** are also mentioned by this group as their dream. Girl's groups imagined visiting places within or adjacent to Dhaka City like "**Victoria Park", "*Nowab Bari Park*", "*Ramna park"*, the museum, "*Shafipur Ansar club*" and "Fantasy kingdom" at *Ashulia* etc.** Having more playing **accessories like swings, see-saws and slides are also mentioned as their dream for girls particularly from the lower income group. Having playgrounds, a basket ball court and a badminton court** are dreams of girls. Some girls mentioned that they imagine **converting all the vacant lands** into park in their community.

4.2.3 Young and Adolescent Group's Views on Existing Leisure Pattern, Desire and Imagination

Question 1: How do children spend their leisure time in Dhaka City?

A. Young children

Watching TV is the predominant means of recreation for this group. **Playing cricket, football, marbles, skipping, running around with their friend** in front of their house on any vacant space close to their houses and other local games like ***dangguli, kuth-kuth, golla chut, phul-tokka are the common play activities for the young children.*** Playing ***ludo and*** **hide-n-seek** are the most favourite games for the young group. **Reading story books, drawing arts,** playing **computer games, riding bicycle,**

listening to music, playing with toy cars and dolls are the most common leisure time activities for the young children. Young children are found **playing and swimming** in the lake and river adjacent to their slums without knowing how to swim.

B. Adolescent children

Most of the adolescent boys play outdoor games like cricket, football, badminton, although many adolescent boys **cannot play cricket or football** as the playgrounds are far away from their houses. Adolescent boys from lower income group, who are working children, prefer to **sleep at home.** Adolescent children used to playing with **friends** on **street and hanging around with friends, chatting with friends, listening to music and walking on the rooftop. Adolescent girls from higher income group spend their leisure time sitting idle** at home**, chatting with friends over telephone, sleeping etc. Watching television** is the most predominant means of recreation mentioned by adolescents, particularly girls of middle and higher income group, who used to watch television 7 to 8 hours a day. Adolescent boys from lower income groups are found **playing dangerously on a real moving train.**

Question 2: How do children of Dhaka City want to spend their leisure time?

A. Young children

Big, clean playgrounds to play football, cricket and other sports are the most preferred things for young boys. The young girls' group wanted to have a **clean play space** for them. Most of the girls are interested to go to **the park.** All the four groups are interested in going to **amusement park** for their recreation. The young children's group wanted to have a **big pool** where they can swim, play **hide-n-seek, have more friends in their areas etc.** Young children from high income group wanted to have **more friends in their apartments or close to their living areas and** wanted to go to those **shopping malls with play facilities** where they can play. **Having** more **play accessories like carom, *ludo,* ball, badminton racket, see-saws, slides and swings ia also desired.**

B. **Adolescent children**

Visiting **parks and amusement parks** are the most wanted recreational activity for all the four groups. **Proper playgrounds** and **playgrounds with seating arrangements** are the most preferred aspects wanted by the adolescent boys. Adolescent children wanted to have **gymnasiums, video games shops, exercising and aerobics centres**

for their recreation. **Moving around with friends, more play accessories** to play with, **netted roof top are the most wanted things for adolescent boys,** plus a **cricket club and sports centre/club** where they can play safely. Visiting distant places in the country like **sea beach at Cox's Bazaar and the Shrine at Sylhet** are also mentioned as their favourite places by some of the adolescent boys. **Having their own television, separate parks and separate sports club for girls** are also desired by the adolescent girls.

Question 3: How do children imagine or dream about the "Best Ways" of spending their leisure time?

A. Young children

Visiting **amusement parks, Cox's Bazaar, Zoos, museum** and **going for picnicking** are mentioned by young children as their dream places. The young children of lower income group, dream of having more play **accessories like swings, see-saws and slides.** Having their **own television and riding their own car** are also this group's dream. Go**ing abroad**, **visiting mother at village home,** creating a **park in slums,** creating a **garden with fruit trees in the slum, g**oing to **fun fairs, book fairs and river banks,** having a **big playground, a big pond,** having a **place like their village, g**oing for **shopping with mother, having ice-cream and Chinese food at the restaurant free of cost and visiting friends' houses** are also mentioned as their dreams.

B. **Adolescent children**

Visiting amusement parks and zoos are the two most desired places to go to for all the groups. Other than these two places, visiting zoo, **museum, fairs, the airport, the assembly building, "Savar Martyr monument", "Intellectuals Martyred Monument" and the *Ashulia* water front, Shrine of *Saint Shajalal* at Sylhet, Cox's Bazaar (Sea-beach), Comilla (historic site), Sylhet (tea garden), *Sunderban* (forest), *Chittagong, Sundarban, Sylhet, Rangamati, Madhupur, Pabna*** etc. are their dreamed places to go to. Playing **cricket, musical instruments and having a large playing field are dreams of the adolescent boys, whereas a basket ball court and a badminton court** are dreams for the adolescent girls. **Riding Jeep, car, train,** going to an **island, having a bicycle, library, rickshaw ride during good weather,** visiting **the Film Development Corporation (FDC) to watch film making, *Bagha Club* (British club) are** dreams for

adolescents. Some adolescent girls mentioned they imagine **converting all the vacant lands** into park in their community.

4.3 Key Findings from Children's Perceptions on Existing Pattern, Desire and Imagination

The key finding from the children's perception study are given below:

Question 1: How do children spend their leisure time in Dhaka city?

- Few children living in streets and children from high income group play outdoor games.
- Children of all socio-economic groups play with friends except the children from high income group.
- Particularly those girls living in streets and slums do not have time for recreation, whereas girls from middle and high income group have plenty of time for their recreation but they don't have anything particularly for recreation.
- Watching TV is the predominant recreation, particularly for adolescent girls from high income group who watch television 7 to 8 hours a day.
- Boys living in slums and from middle income group play cricket and football, whereas boys living in streets sleep during their leisure time and boys from high income group watch television or play computer games.
- Children living in streets and slums, particularly young children, play a variety of indigenous games with their friends and most of these games do not require much space and they can play anywhere like verandah, in front of their houses, courtyards, streets etc.
- Boys living in streets and slums play dangerously with real moving trains and young children are found playing or swimming in the lake or river although they do not know how to swim.

Question 2: How do children of Dhaka city want to spend their leisure time?

- Children living in streets and children from high income group want to have a big, clean playground or netted roof top to play cricket and football.

- Boys' groups want to have proper playground for playing cricket and football. Whereas girls' groups want to visit parks and amusement park for their recreation.
- Most of the children, particularly the younger children want to have more friends to play or moving around with friends.
- Many children want to play with more play accessories like see-saws, slides and swings.
- The girls' groups, particularly the adolescent girls, want to have separate playground and sports club exclusively for them.

Question 3: How do children imagine or dream about the "Best Ways" of spending their leisure time?

- Amusement park, zoo and visiting *Cox's Bazaar* and picnicking are also dream places for children living in Dhaka city irrespective of socio-economic group, age and gender. Children from high income groups dream of going abroad, to places such as India, Malaysia and Singapore.
- Picnicking is also found as one of the best ways to realize their dreams for the children of Dhaka city.
- Owning a television is also mentioned as their dream for many children living in streets and slums.
- It is interesting to see that adolescent boys' dream is to play cricket in a large playground whereas adolescent girls' dream is to have basketball and badminton courts in their living places.
- Many children, particularly children living in streets and slums, dream of going back to village. Visiting lake or river, island surrounded by water are many children's dream places.
- Adolescent girls' dream is to convert all the vacant land into parks.

4.4 Conclusions

It can be concluded from this chapter that the needs, desires and imagination for spending leisure time across the socio-economic groups, gender and age are different. This group-wise analysis and recommendations should be the basis for the planning of

the outdoor play and recreation provisions. It is evident that preferences and needs for the outdoor play and recreation are very basic and can be fulfilled with sincere efforts from the parents and service providers. For instance, streets children's desire for visiting amusement park and funfair and going to picnic can easily be arranged. Also the desire for having some leisure time, particularly for the adolescent girls living in slums, should be looked into from a more child welfare perspective. From consultation with the children it also has come up very clearly that they can also contribute in realizing their dreams about the play and recreation provisions. To recognize their participation in the design and planning process, it is important to listen to them and allow their views to be heard.

It is also observed that needs and priorities vary according to age, gender and the different socio-economic backgrounds. For instance, provision of a playground in the community does not mean that all children can use this facility. For young children, a small courtyard may serve as the play and recreation space, an adolescent boy from high income family needs adequate security and parental support. Adolescent girls from middle and high income group have enough leisure time but they do not have many opportunities for play and recreation. It is found that the dream of a child from a high income group is the same as that of a street or a slum child to spend leisure time playing with friends. The situation is also sometimes other way around, like the imagination of a poor child is what a child from high income group enjoys, for instance going to amusement parks. It is also revealed that children's desire and imagination about play and recreation activities are not always unattainable and unrealistic even in the current high density condition of Dhaka city (Ahmed and Sohail, 2006).

Children's perceptions and needs according to socio-economic groups, gender and age are further analyzed in chapter 9 in order to identify the factors and issues associated with planning of children's outdoor play and recreation provisions in Dhaka city.

CHAPTER 5: CHILDREN'S PERSPECTIVE ON EXISTING OUTDOOR PLAY AND RECREATION PROVISIONS

5.0 Introduction

The previous chapter (Chapter 4) provides the overall perceptions on needs and priorities about the play and recreation according to different socio-economic groups, age and gender of children living in Dhaka city. This chapter provides the scenario about the existing condition of playgrounds and parks of Dhaka city, which is done from two different perspectives. Firstly, a thorough assessment of the existing condition was done through direct observation using the observation checklist (Annex 4). Secondly, this chapter presents the data and results of the questionnaire survey of the children using playgrounds, parks and amusement parks (Annex 5a, 5b and 5c). The previous chapter gives an overall understanding about children's needs and priorities across the age, gender and socio-economic conditions of Dhaka city. This chapter presents children's needs and priorities in a more specific way from playground, park and amusement park users' point of view.

The main aspects of the current chapter are:

- To assess the physical, environmental and maintenance condition of the existing outdoor playgrounds, parks and amusement parks in Dhaka city (Objective 2);
- To know the profile of the children using playgrounds, parks and amusement parks in Dhaka city (Objective 2);
- To understand the existing condition of the playground, parks and amusement parks from users' (children's) point of view and their recommendations (Objective 2); and
- To cross check some of the factors and issues related to planning and management of children's play and recreation provisions raised in literature review and children's perception study (Objectives 3 and 4).

5.1 Existing Condition of Outdoor Play and Recreation Facilities

In order to carry out the assessment regarding the physical condition of playgrounds in terms of spatial distribution, accessibility and equity of the outdoor play and recreation facilities, it is important to have maps of all the outdoor play and recreation facilities for Dhaka city. As no maps were available preparation of maps was done under this research. Also no comprehensive list of playgrounds and parks in Dhaka city was available for Dhaka city, therefore collection of lists from different responsible agencies, identification, validation and plotting of all the existing playgrounds, parks and amusement parks was done under the research. These maps are also a contribution to the planning professionals in Dhaka city. An intensive field investigation was done for the research in order to identify the number and condition of existing playgrounds, parks and

amusement parks in Dhaka city. The check list for the field investigation is attached in Annex: 4. Findings of the study are mentioned next.

In Dhaka Metropolitan City, it is found that there are 148 play grounds (excluding stadiums), 27 parks and three amusement parks and they cover about 1,266 acres of land area (Annex: 8). The ratio of these outdoor play and recreation areas to the total area of Dhaka City is only 1:0.04. According to the survey, parks and playgrounds ranging from 0.5 to 1.0 acre make up only 4% of the Dhaka's total area, parks and playgrounds of more than 1 acre of land make up 3.8% of Dhaka's total area and parks and playgrounds of more than 6 hectares make up 2.8% of Dhaka's total land.

Table 5.1: Size of parks and playgrounds as percent (%) of the total area of Dhaka city

Size of parks and playgrounds range	% of Dhaka's total area
0.5 – 1.0 acre	4%
More than 1 acre	3.8%
More than 6 hectares	2.8%

(Source: Survey 2004, conducted under this study)

Figure 5.1 shows a map of Bangladesh locating Dhaka district and Figure 5.2 shows a map of Dhaka city with playgrounds, parks and other open areas in Dhaka city.

Playgrounds

Most of the 148 playgrounds in Dhaka city vary in size from a badminton court, a cricket pitch or football pitch (55% of the playgrounds are larger than a football pitch). The physical conditions of the playgrounds are not always suitable for play due to, for example, the uneven ground, lack of grass or a boundary wall or else encroachment by slums. Goal posts for football (49 cases), Cricket pitch (48 cases) and Badminton courts (49 cases) are the three main play facilities observed in 17-18% cases of playgrounds. Facilities for basketball, volley ball, swings and slides are observed in less than 5% cases. Toilet facilities are found in only 3% cases.

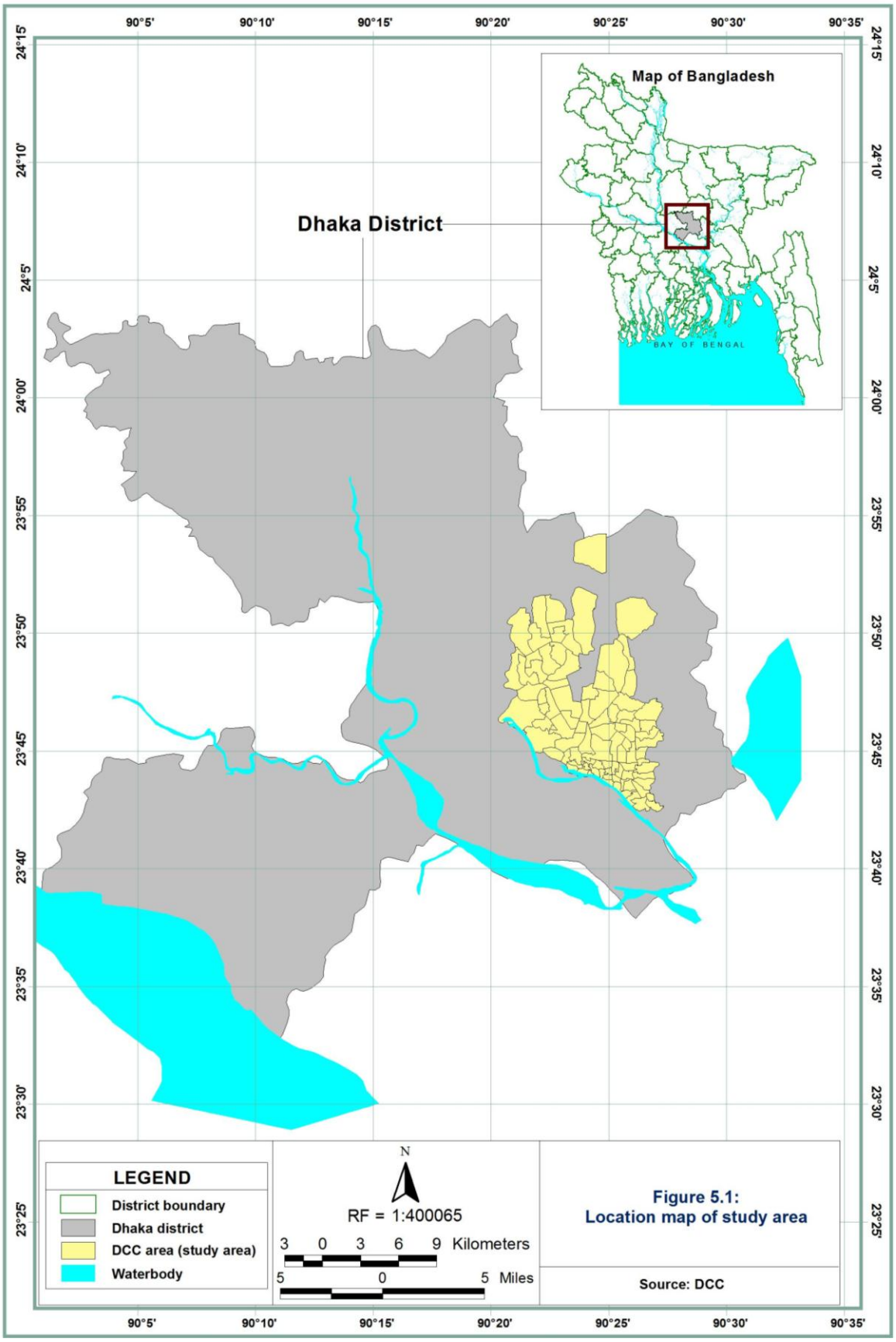


Figure 5.1:
Location map of study area

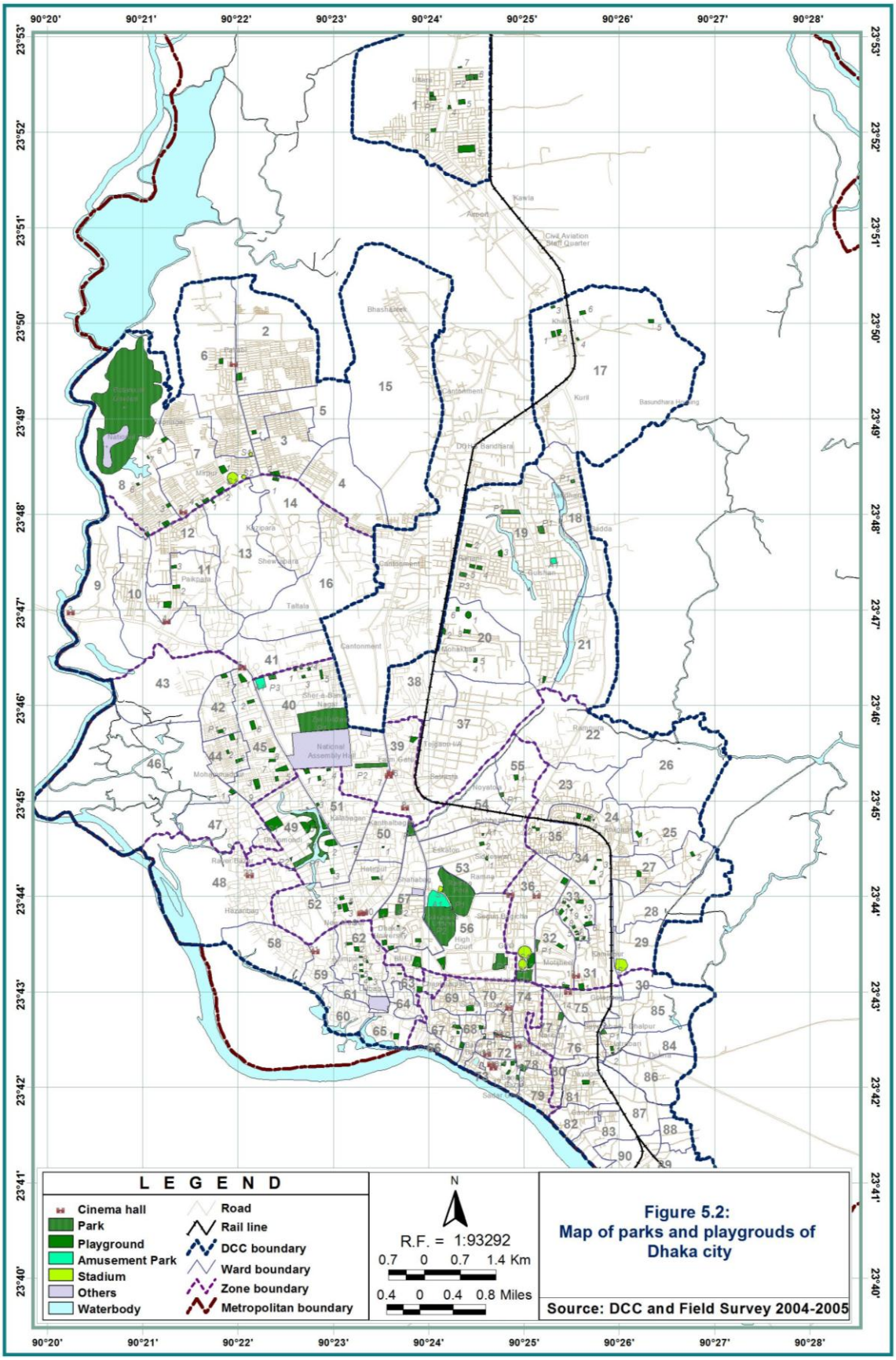


Figure 5.2: Map of parks and playgrouds of Dhaka city

Table 5.2: Number of playgrounds in Dhaka city differentiated by ownership type

Owners	Number of playgrounds
Authority of some institutions (schools, colleges etc.)	64
Community	18
Private organization	6
Capital Development Authority	4
Others	56
Total	148

- **Physical Condition of Playgrounds:** The physical conditions of the playgrounds are not always suitable for the play. In only 20% of the playgrounds, is the surface found to be even and only a quarter of the playgrounds are fully or partially covered by grass. Only less than 10% of the playgrounds have a boundary wall or have a partial wall. In a few cases, it is observed that these playgrounds are either encroached by slums or people use them as dumping grounds.
- **Maintenance of playgrounds**: In more than 60% of cases the playgrounds are not maintained; lack of proper rubbish collection facilities (18%), dirty (11%), irregular mowing (11%) are the three major problems observed in these playgrounds. Only 11% percent of the playgrounds are observed to be clean, only 2% had proper rubbish collection facilities, about 5% are observed with regular watering and about 4% are observed with regular mowing facilities of playgrounds. In only one fifth of playgrounds is proper maintenance and satisfactory condition observed.
- **Environmental Condition of playgrounds:** Noise (20%), dust (18%), garbage dumping (7%) and cattle grazing (2%) are found in the playgrounds. There are some playgrounds where it is found that the environmental condition is quite satisfactory (13%) and calm & quiet (8%).

Parks

There are 27 parks in the Dhaka Metropolitan area, about half of which are maintained by Dhaka city Corporation. Capital Development Authority (RAJUK), private and government organizations and others are responsible for the maintenance of the rest of the parks. The two most common physical facilities in parks are seating arrangements

and walkways. Swings and slides are the two play facilities observed in about one third of the parks and lights and toilet facilities are also observed in nine and eight cases respectively. Restaurants are found in only two cases.

- **Physical Condition of the Parks:** Out of 25, grass was found in ten cases. Only six parks have a boundary wall or partial boundary wall. Only in five cases, has the ground been leveled. Sheds and trees are found in seven cases. Most of the amusement parks have paved walkways, seating arrangements, sheds and boundary walls. In addition, most of the amusement parks have toilet facilities and restaurants.
- **Maintenance Condition of Parks:** Lack of proper maintenance is one of the major problems in the majority of the parks. In one third of the amusement parks, poor maintenance of toilet facilities is found, compared to well maintained toilet facilities in the remaining two-thirds.
- **Environmental Condition of Parks:** Noise and indiscriminate disposal of garbage and paper trash are the two major problems found in 15 parks in Dhaka Metropolitan City. Trees and sheds are also found in most of the parks. Bad odour is a problem found in two parks. Most of the amusement parks are situated in crowded areas but most of them are well shaded with trees.

Amusement Parks

Most of the amusement parks in Dhaka city are owned by private organizations and situated outside the Dhaka City Corporation area. However, three amusement parks, Shishu *Park* (children's park), *Shishu Mela* (children's fair), Wonder Land (amusement park) are located in central Dhaka and owned by Dhaka City Corporation (DCC).

- **Physical condition of amusement parks:** Most of the amusement parks have paved walkways, seating arrangements, sheds and boundary walls, toilet facilities and restaurants.
- **Maintenance condition of the amusement park:** In one-third of the amusement parks poor maintenance of toilet facilities is found.
- **Environmental condition of amusement parks:** Most of the amusement parks are situated in crowded areas but most of them are well shaded with trees.

Informal Play

Informal play is observed in the streets of colonies (public housing areas), at the entrance of access roads in the planned residential areas and in the alleys of the unplanned residential areas. In most cases children are found to play on the paved roads, narrow streets and on uneven ground close to their houses. There is no maintenance found in these informal play areas. Most of these play areas are noisy, unclean, unfenced and littered with garbage. Most of the children are found playing cricket in these informal play areas. Slum children and children from middle-income families are most likely to be observed playing in these areas. This informal play is very common among the younger children of Dhaka city.

Other Play and Recreation Facilities

Other than playgrounds, parks and amusement parks, children also reported visiting museums, Novo-Theatre (planetarium), national Parliament Building, *Lalbagh* fort, *Ahsan Manjil* (a palace), and various sporting facilities (Bangladesh National Tennis Federation, National Swimming Complex, National Indoor Stadium etc.). Most of these facilities are owned by Capital Development Authority or Dhaka City Corporation. Children in Dhaka also enjoy video games. Video game shops are cramped (about 6 sq.m to 9 sq.m) and eight to 17 children play at a time and children have to pay for using these facitities. Children living in slums and from the lower middle–income bracket are the predominant users of these facilities. Most of the video game shops are noisy and situated in old Dhaka and in unplanned residential areas.

5.2 Users' Views on Existing Play and Recreation Facilities

This section deals in understanding the specific views of children playgrounds, parks and amusement parks from users' perspectives. Users' views will help to identify children's satisfaction, references and problems related to outdoor play and recreation provision. This will also help the researcher to understand children's specific needs regarding outdoor play and recreation and to identify the factors and issues from children's points of view, which in turn helps to formulate the planning framework for children's outdoor play and recreation provisions for Dhaka city. Questionnaires for

playground users, park users and amusement park users are attached in Annex: 5a, Annex: 5b and Annex: 5c respectively.

5.2.1 Profile of Playground, Park and Amusement Park Users

It can be shown from the tables that boys are the main users (97%) of playgrounds in Dhaka City. Only 3% girls are present during the survey. It is also found that boys from middle income groups predominantly use playgrounds (80%) and only 4% children living on streets use playgrounds. It is also revealed that very few children from high income bracket use playgrounds (5%) and public parks (2%) in Dhaka city.

Table 5.3: Profile of playground, park and amusement park users (children)

	Playgrounds (Number and %)	**Parks (Number and %)**	**Amusement Parks (Number and %)**
Children interviewed	374	84	41
Age group of 5-12 years	182 (49%)	44 (52%)	27 (66%)
Age group of 13-18 years	192 (51%)	40 (48%)	14 (34%)
Boys	361 (97%)	72 (85%)	49%
Girls	13 (3%)	12 (15%)	51%
Children from high Income bracket	5%	2%	9 (22%)
Children from middle income bracket	80%	70%	32 (78%)
Children from slum	11%	11%	-
Street children	4%	16%	-

5.2.2 Outdoor Play and Recreation Pattern of Users

Playgrounds

The majority of the children (68%) are found to come to the playground daily in the afternoon. More then 88 (20%) used the playgrounds one to three times a week and not at any specific time. About 80% of children used the playgrounds between one to three hours a day.

Most children walk to the playground, often less than half a mile, and therefore no travel costs are involved (and there is no entry fee for playgrounds). About 6% of the children came to playgrounds by rickshaw and car. One-third of the children reported that their travel time is less than five minutes. More than 50% of children are observed playing cricket, 22% football and 16% badminton. Through field observation it is found that cricket and football are the two games played by boys of all socio-economic groups,

whereas badminton or volleyball are mostly played by boys and girls from middle-income and high-income groups. “Hide ’n’ Seek” and “7-Stones” and Marbles are played mostly by slum and street children. Figure 5.3 shows the type of play activities observed in playgrounds.

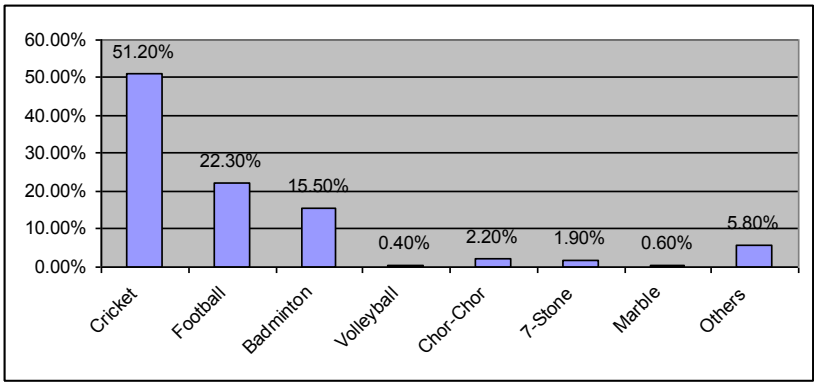


Figure 5.3: Types of outdoor play activities observed in playgrounds

Table 5.4: Statistical description of playground users (children)

Playground	
Average Age	12 years
Duration of time spend	113 mnts
Distance of residence from playground	0.37 miles
Travel cost/child	8 taka
Recommended distance of playground from residence	0.4 miles

Parks

Half of the children interviewed came to the park daily and 20% came to the park 1-3 times a week. About 60% of children come to parks during afternoon and morning and one- third of them come to the park at no specific time. For about half of the children, parks are less than half a mile distance from their home, the majority walked to the park. About 10% came by rickshaw, 5% by bicycle, 2% by other means and only 1% by private car. The distance from residence to the parks for 50% of the children is less than 5 minutes, therefore in most cases children do not have any cost involvement related to their travel; in 15% of cases they need to spend BDT 5 - BDT 25 to travel from their residences to parks. More than 60% of the younger children are playing with slides and see-saws and swings. Figure 5.4 shows different types of play and recreation activities observed in parks.

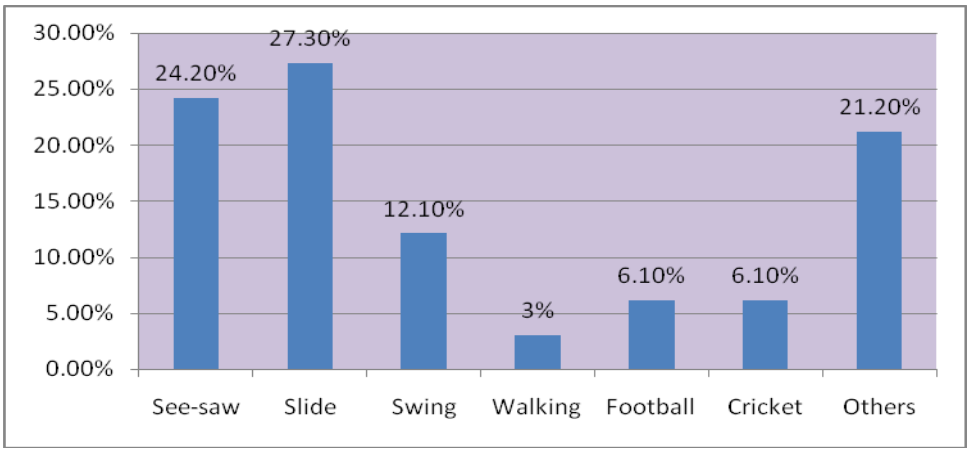


Figure 5.4: Types of outdoor play activities observed in parks

Riding slides (27%) and playing cricket (14%) are the major recreation of young children of the age group of five to twelve years. Among the adolescents, strolling (20%), playing cricket (15%) are the two main recreation activities observed in parks. Strolling, riding slides and swings are the three main recreation activities observed among girls. Playing cricket, strolling and riding slides are the predominant recreation activities observed among boys.

Table 5.5: Statistical description of park users (children)

Park	
Average Age	12 years
Duration of time spend	133 min.
Distance of residence from playground	0.63 miles
Travel cost/child	13 taka
Recommended distance of playground from residence	0.57 miles

Amusement Parks

Most children only go to amusement parks occasionally. About 44% of the children interviewed in the amusement parks are visiting the park for the first time. About 10% come to these amusement parks one to three times a month and 5% once a week, and 40% of children come to the amusement park during afternoon and 20% at noontime. Half of the children spend three hours on average in the playgrounds and the remaining children spent 1-3 hours in the amusement park. Only 15% of amusement park users come from a distance of within two miles. About one-third of the children come from more than 5 miles distance as these amusement parks are situated on the fringes of Dhaka city and 26.8% and 14.6% children come from a distance of 2-5 miles and 1-2

miles respectively. About one-third of the children come to the amusement park by auto-rickshaw and 29.3% by car. The travel time for 37% children is 2-3 hours, for one third of the children it is 15-30 minutes and for 24% of cases the travel is 30 minutes to one hour. In about 50% cases the travel cost is between Tk.50.00-200.00 (50 pence – GBP 2), and in about 25% cases it is more than BDT 200.00 (GBP 2). The entry fee in 83% cases is BDT 700.00 (GBP 7). Most of the children are observed riding train, Merry-Go-Round or playing water games.

5.2.3 Users' Views on Outdoor Play and Recreation

Playgrounds

On the whole, the children are satisfied with the shape and size of their playgrounds. The top three factors for dissatisfaction in playgrounds are: poor rubbish collection (73%), lack of drinking water (71%), and inadequate toilet facilities (70%). Children also report their dissatisfaction related to cleanliness of the playground (68%), children's play facilities (65%), seating arrangements (64%) and lawn maintenance (63%).

Most children wanted toilets (72%), shelters (40%) and slides (38%) in their playground. Good lighting and toilets are the most important service facilities required for a good playground reported by the adolescents and young children respectively.

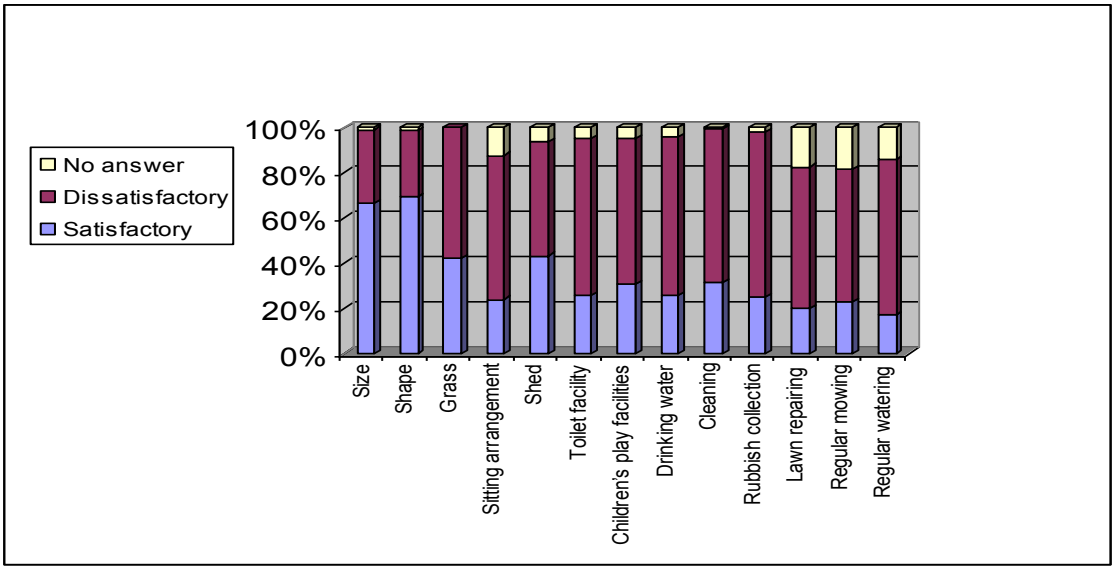


Figure 5.5: Satisfaction level of children to physical, environmental and maintenance of playgrounds

According to the children interviewed in the playgrounds, absence of grass, uneven ground, and absence of toilet facilities are the three major problem areas in their playgrounds. Children are a bit less concerned about the environmental problems; about 30% of the children reported that there are no environmental problems in their playgrounds. However, overcrowding and noise are the two environmental problem mentioned by children. Regarding the maintenance problem, lack of cleanliness (35%) and improper rubbish collection (29%) are the two maintenance problems reported by children. No restriction on anti-social activities by people at the playground is also mentioned by some children as one of the problems of playgrounds.

For the street children, a clean area, even ground, grass, playgrounds free from cattle and other animals, restriction on antisocial activities are the most essential elements for a good playground. For slum children, large area, grass, calm and quiet area, restriction from cattle grazing and other animals are the most essential elements for good playgrounds. Even and quiet area, free from noise (87%), and restriction on anti-social activities are the most important factor for a good playground for children from middle-income background. Even, free from any establishment, calm and quiet areas are the important aspects of good playgrounds for high-income group children.

Parks

Close proximity to their house is the prime reason for the children to go to the park. One fifth of them mentioned that they visit these parks as there is no park near their house. Large size (12%), good maintenance (6%) and natural beauty (6%) are the reasons mentioned by the children for using the parks.

The children using parks are most satisfied with the condition of plants (80%), walkways (70%) and flowers (51%) in the park. The three most unsatisfactory factors reported by children are lack of drinking water (81%), inadequate toilet facilities (76%) and poor rubbish collection (61%). Other problems mentioned include noise, air pollution from vehicles, anti-social behaviours, lack of shelter and lack of security.

According to park users, absence of plants, shelter and small size are the three most problem areas in terms of the physical facilities in the park. Related to the environmental problems of parks, noise, air pollution from vehicles, and indiscriminant littering are the

most problematic areas. Poor rubbish collection, absence of cleaning and lack of security are the problem areas of the parks. The fact that there is no restriction on anti-social people in the park is also mentioned as one of the problems of parks in Dhaka city.

According to these children, large size (44%), cleanliness (38%) and trees and greeneries (11%) are the most wanted facilities for a good park. Seasonal flowers (2.4%), walkways (1.2%) and grass (1.2%) are also park users' preferred physical facilities.Calm and quiet area, free from noise (66%), restriction on cattle grazing and other animals (21%) and restriction on anti-social people (4%) are found to be the environmental considerations for a good park.

Having a toilet (46%) in a park is the most desirable facility reported by the children using parks. Good lighting (37%) and shed (11%) are the two most important facilities reported by the park users. Shelters as the most important facilities for a good park are mentioned by the street children. Good lighting and provision for toilets are the most important service facilities for a good park reported by the adolescent and young children respectively as well as by children from middle and high-income background.

Amusement Parks

The main reasons for visiting the amusement parks are the availability of play facilities (25%), good maintenance (25%), attractive designs (18%) and the fact that children are informed about the amusement parks (18%). Close proximity is not a factor for visiting the amusement parks.

Among the amusement park users, presence of trees and greenery (90%), flowers (76%), children's play facilities (76%) and availability of drinking water are the four major aspects of satisfaction whereas they are dissatisfied about the lighting (66%), seating arrangements (61%), walk ways (58%) and shelters (44%).

The essential physical facilities for good amusement parks are trees, plants, cleanliness and large size as mentioned by the amusement park users. Calm and quiet areas and restriction on anti-social activities are the main environmental factors of good amusement parks as mentioned by the park users. Toilets, good lighting, restaurants

and shelters are reported as the essential service facilities for a good amusement park as mentioned by the users.

5.2.4 Users' Recommendations

Playgrounds

Type of the playground: More than 55% of children, irrespective of their age and socio-economic background, want to have a playground within their community. Although the adolescent boys prefer large size playgrounds rather than ones close to their home which can be outside the community if there is a space problem within community. Younger children between the age of 5-12 years, want to have combined park and playground within their community, but the adolescent children wanted to have separate parks and playgrounds but adjacent to each other.

Table 5.6: Recommended types of playground

Type of the Playground	Frequency	Percent	Valid Percent
Small playground within the community (to play badm./crick.)	59	15.8	16.0
Big playground outside the community (football)	45	12.0	12.2
Small or big within the community	98	26.2	26.6
Park and playground within the community	52	13.9	14.1
Park and playground should be separated but adjacent	91	24.3	24.7
Park and playground should be combined	23	6.1	6.3
Total	368	98.4	100.0
System	6	1.6	
	374	100.0	

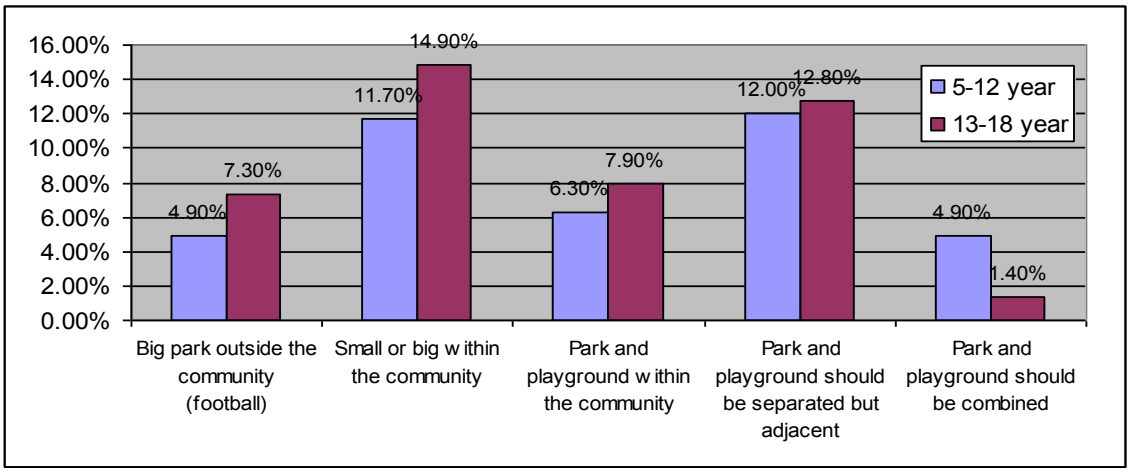


Figure 5.6: Recommended types of playground and age of children

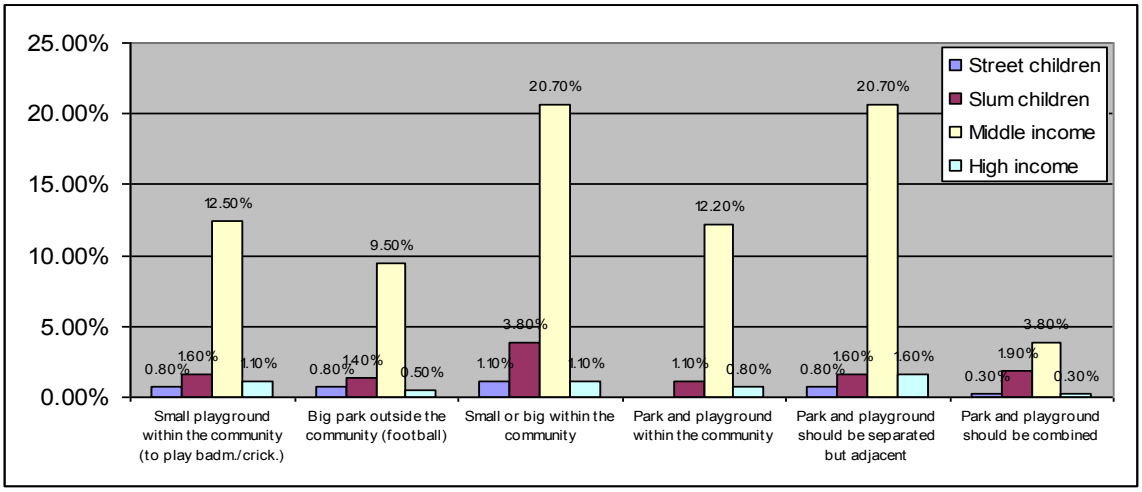


Figure 5.7: Recommended types of playground and socio-economic group of children

Size of the playground: It is found that about half of the children wanted a playground about the size of a football field; a quarter of them want to have a playground bigger than a football field; one fifth wanted a playground smaller than a badminton court (those children are aged 5 to 12 years). Interestingly, adolescent boys want larger sized playgrounds than the younger children.

Table 5.7: Recommended size of playgrounds

Recommended Size	Frequency	Percent	Valid Percent
Size for badminton/cricket play area	74	19.8	20.2
Size of a foodball ground	178	47.6	48.6
Bigger than football ground	91	24.3	24.9
5-10 acres	2	.5	.5
10 and above	5	1.3	1.4
No answer	9	2.4	2.5
Larger than cricket field	7	1.9	1.9
Total	366	97.9	100.0
System	8	2.1	
	374	100.0	

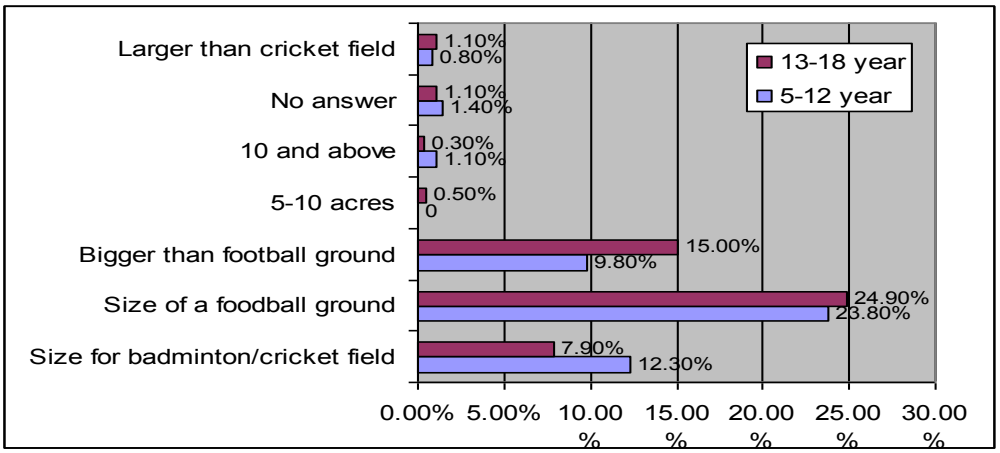


Figure 5.8: Recommended size of playgrounds and age of children

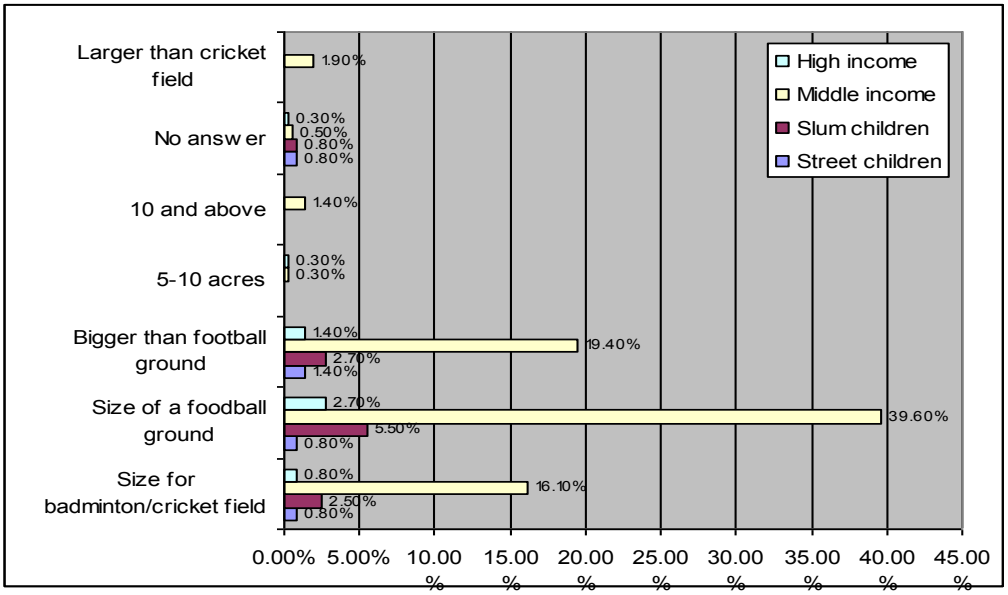


Figure 5.9: Recommended size of playgrounds and socio-economic groups

Distance of playground: About 75% of the children want a playground less than half a mile from their home.

Table 5.8: Recommended distance of playgrounds from home

Distance	Frequency	Percent
<0.5 mile	267	71.4
0.5-1 mile	73	19.5
1-2 mile	16	4.3
>5 mile	1	.3
No answer	9	2.4
Total	366	97.9
System	8	2.1
	374	100.0

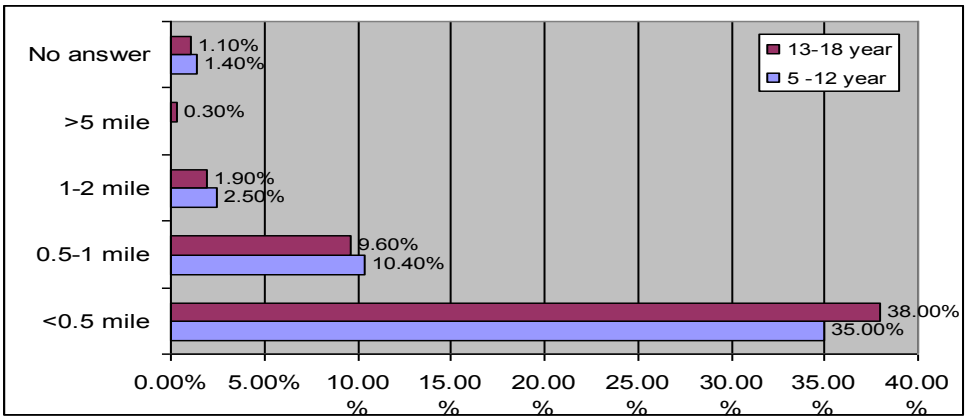


Figure 5.10: Recommended distance of playgrounds and age of children

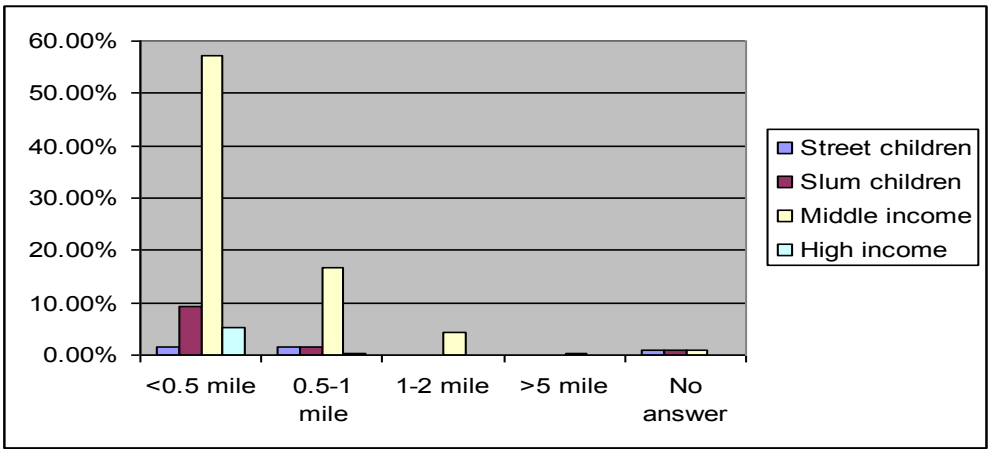


Figure 5.11: Recommended distance of playgrounds and socio-economic group of children

Parks

Type of park: Younger children wanted to have a combined park and playground within their community, but the adolescent children wanted to have separate but adjacent parks and playgrounds. The need for small parks within the community is also recommended by 19% of the park users.

Table 5.9: Recommended type of parks

Recommended Type of Park	Frequency	Percent	Valid Percent
Small park within the community	15	17.9	19.2
Big park outside the community	5	6.0	6.4
Small or big park within the community	16	19.0	20.5
Park and playground within the community	10	11.9	12.8
Park and playground should be separated but adjacent	18	21.4	23.1
Park & playground should be combined	12	14.3	15.4
Others	2	2.4	2.6
Total	78	92.9	100.0
Missing System	6	7.1	
Total	84	100.0	

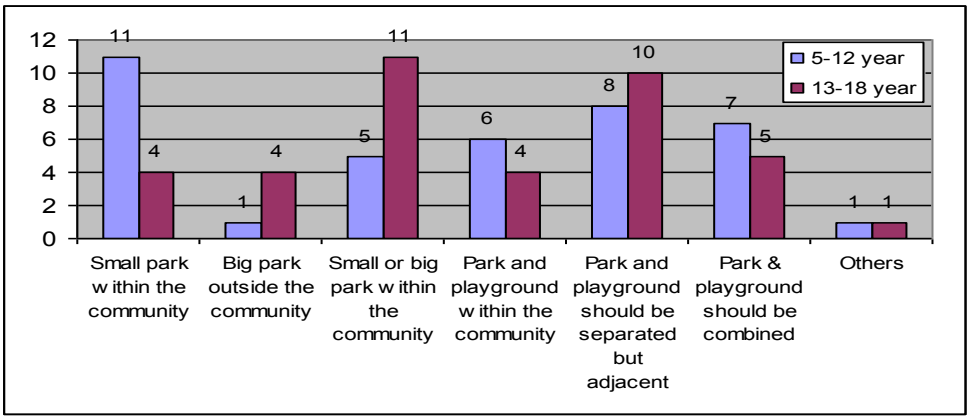


Figure 5.12: Recommended types of park and age of children

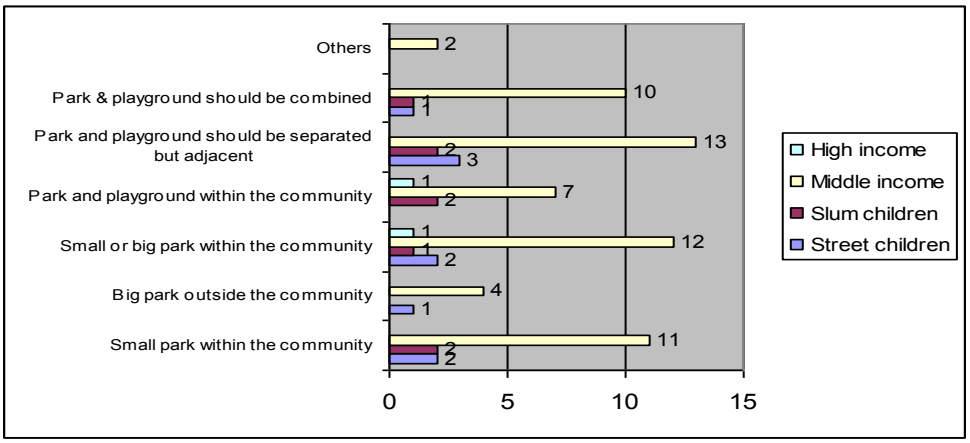


Figure 5.13: Recommended types of park and socio-economic group of children

Size of the park: Younger children prefer to have a small park within the community, whereas adolescents preferred to have a bigger park. It is found that one fifth of children wants to have a park of a size of 5-10 acres of land, and 18% wanted to have a park of a smaller size (1/8 to 2 acres).

Table 5.10: Recommended size of park

Recommended size of park	Frequency	Percent	Valid Percent
Less than or equal to 1/8 acre	4	4.8	5.5
1/8-2 acres	13	15.5	17.8
2-5 acres	16	19.0	21.9
5-10 acres	4	4.8	5.5
10 and above	7	8.3	9.6
No answer	29	34.5	39.7
Total	73	86.9	100.0
Missing System	11	13.1	
Total	84	100.0	

Distance of park from home: The recommended distance of the parks from the house of most children, irrespective of the age and socio-economic group, is less than half a mile. More than a quarter of children recommend the distance of half a mile to one mile from their house.

Table 5.11: Recommended distance of park from House

Recommended Distance	Frequency	Percent	Valid Percent
0.5 mile	47	56.0	56.6
0.5-1 mile	22	26.2	26.5
1-2 mile	9	10.7	10.8
>2 miles	3	3.6	3.6
No answer	2	2.4	2.4
Total	83	98.8	100.0
Missing System	1	1.2	
Total	84	100.0	

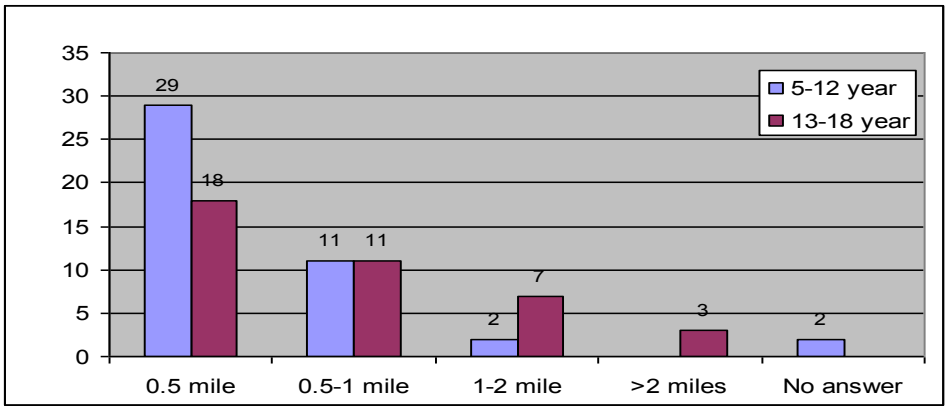


Figure 5.14: Recommended type of parks and age of children

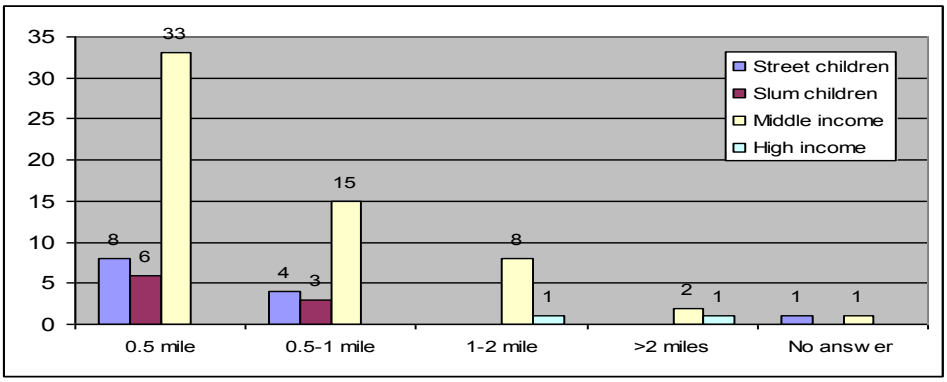


Figure 5.15: Recommended distance of parks and socio-economic group of children

Amusement Parks

Type of amusement park: About 29% of the amusement park users recommends an amusement park and a playground within the community and 24% recommended a small amusement park within the community.

Size of the amusement park: Most of the children at the amusement parks do not have any views about the size of the amusement park.

Distance of the amusement park: About 85% of children wants to have an amusement park within two miles of their homes.

5.3 Users' Views and their Implications on Planning and Management

This section deals with identifying the factors affecting the planning and management of children's play and recreation aspects from users' perspectives in relation to different socio-economic groups, gender and age of the children. In addition to these specific factors, other factors which also have implications related to children's play and recreation aspects are addressed in this section.

5.3.1 Factors for Children's Play and Recreation in Relation to Age

- Young children wanted to have combined playground and park within the community and adolescents wanted to have separate park and playground that could be adjacent or separated.

- Adolescent boys wanted larger sized playgrounds than the young children. Young children wanted a play area of a size of a badminton court whereas adolescent require a bigger size, the size of a football field. Younger children prefer to have a small park within their community, whereas adolescents' preference is for a bigger park. Most of the children using the amusement park did not have any specific views about the size of the amusement parks.
- Young children are used to playing informally in front of their houses and in the narrow streets in front of their houses; adolescents play in bigger spaces which are a bit farther from their houses.
- Young children visit amusement park more frequently than adolescents.
- Young children want even playgrounds.

5.3.2 Factors for Children's Play and Recreation in Relation to Gender

- Boys play outdoor games such as cricket and football. It is found that boys are the predominant users of playgrounds (97%) and parks (85%) in Dhaka city.
- Girls are found only playing badminton and volleyball and indigenous games like hide-n-seek, 7-stones in Dhaka city.

5.3.3 Factors for Children's Play and Recreation in Relation to Different Socio-economic Background

- Through the field observation it is found that cricket and football are the two games played by boys of all socio-economic groups. Badminton or volleyball are mostly played by boys and girls from middle and high income groups, whereas hide-n-seek, 7-stones and marbles are played mostly by slum and street children.
- According to children living in the streets, clean and even ground, grass, freedom from animals and anti-social activities are the most essential elements of good playgrounds. According to children living in slums, large size, restriction on cattle grazing and grass are the most essential elements of a good playground. For Children of the middle income group, calm and quite area and restriction on anti-social activities are the most important factor. Even, calm and quiet areas and cleanliness are essential elements of good playgrounds for children of the high income group.

- About 80% of the playground user children are from middle income group. About 11% children users are from slums and 5% are from high income and only 4% are from children living in streets. About 70% park user children are from middle income, 16% children are from streets, 11 percent from slums and only 2% from high income group. Children living in streets and slums do not visit amusement parks in Dhaka city.

5.3.4 Common Factors for Children's Play and Recreation

- It is revealed that the amount of open space per 1,000 people is only 0.24 acres in Dhaka city which is one of the lowest in the world.
- Cricket (51%), football (22%), badminton (16%) are the three games observed being played by the children of Dhaka city. Other than these, hide-n-seek, 7-stones, marble, volley ball and other games are found to be played by the children of Dhaka city.
- Physical condition of playgrounds is not always suitable for play. Uneven ground, lack of grass and absence of boundary walls are the three main facilities observed in only 17-18% cases of playgrounds. Facilities for basketball, volley ball, swings and slides are observed in less than 5% cases. Toilet facilities are found in only 3% cases of playgrounds in Dhaka city. The two most common physical facilities in parks are seating arrangements and walkways. Swings and slides are observed in about one third of the parks.
- Most of the children (78%) came to the playground from within half a mile distance from their home. And about 50% children came to the park within half a mile distance from their home. Distance is a big factor for children to visit playground and park in Dhaka city.
- Informal play is predominant in the middle income and slum areas. Children are used to playing in the paved roads, narrow streets close to their houses. It is found that most of the play areas are noisy, unclean, unfenced and littered with garbage.
- Close proximity is the main reason for using playgrounds and parks in Dhaka city. In the case of amusement parks, the closeness is not a factor influencing such visits. The main reasons for visiting amusement parks are the availability of play facilities, good maintenance and attractive designs.

- Many children irrespective of their age and socio-economic background wanted to have playgrounds and parks within their community, which can be adjacent. The recommended distance of playgrounds and parks is less than half mile from their home. In the case of amusement parks, most of the children wanted an amusement park within two miles of their home.
- Children are found to be satisfied with the shape and size of the playground. In case of parks, the most satisfying factors are the condition of plants, walkways and flowers. Presence of trees, flowers, play facilities and availability of drinking water are the major aspects of children's satisfaction for amusement parks.
- The top three factors for dissatisfaction of children about playgrounds and parks in Dhaka city are poor rubbish collection facilities, inadequate drinking water and lack of toilet facilities.
- Most children expressed toilets, shelters and slides as the most wanted aspects by the playground users. According to park users, large size, cleanliness and greeneries are the most wanted facilities. Toilets, good lightings, restaurants are the essential service facilities for good amusement parks.
- The major problems perceived by the children about playgrounds are absence of grass, un-even ground and lack of toilet facilities. The problem areas for parks are absence of trees, greenery, shelter and limited space. Insufficient lighting, inadequate seating arrangements and walkways are found to be the most perceived physical problems for amusement parks. Regarding problems related to the environment, it seems that children are not very concerned about this. However, overcrowding and noise are the two problems mentioned by some of the playground users. Regarding environmental problems of park users, noise, air pollution from vehicles and littering are mentioned by them. Regarding the maintenance problems, lack of cleanliness and improper rubbish collection are the problem related to maintenance of playgrounds and parks.
- Lack of security and anti-social activities are the major problems related to playgrounds and parks in Dhaka city.
- Lack of security, poor maintenance and inadequate play facilities and accessories are the main reasons for not using playgrounds and parks.

5.4 Conclusions

This chapter gives an overview about the children's needs, priorities, and their recommendations regarding the outdoor play and recreation facilities from the users' point of view. It cannot capture the views of all the sixteen socio-economic groups as girls in general do not use the outdoor play facilities. It is found that boys in general use playgrounds and parks. It is also found that children living in streets and from high income bracket do not play in the playgrounds. Therefore, views of girls, street children and children from high income bracket are not reflected in the survey results in the chapter.

CHAPTER 6: ACCESSIBILITY AND EQUITY OF PLAY AND RECREATION FACILITIES IN DHAKA CITY

6.0 Introduction

The previous chapter described the conditions of playgrounds and parks in Dhaka city and the children's perspective on the existing condition and their recommendations from the users' point of view. This chapter describes the spatial distribution pattern of the outdoor play and recreation facilities in Dhaka city, which helps to identify the un-served areas and population in the city. This chapter presents maps showing the assessment accessibility of the outdoor play facilities by using different analytical tools. The assessment results for the outdoor play and recreation facilities in terms of accessibility and equity in Dhaka city and the barriers for measuring the accessibility and equity are also explained in this chapter (Objective 2).

6.1 Measurement of Outdoor Play and Recreation Facilities

Dhaka city has 192 playgrounds and parks ranging from small playgrounds to a city level stadium according to the survey conducted by the researcher in late 2004. A team of eight graduate planners worked closely with the researcher to conduct the field checking, digitization and finally the preparation of maps.

It is found from the field investigation that the total area of parks, playgrounds etc constitute 1265.96 acres of land which is about 4% of Dhaka's land. Figure 5.2 shows the map of Dhaka city including all the major playgrounds, parks and amusement parks in Dhaka city. Table 6.1 shows the area of open space for all, above 1 acre and 6 hectare of land in DCC area.

Table 6.1: Area of open space for all, above 1 acre and above 6 hectare

Type	*Area (sq.m)*	*Percent (%)*
DCC area	127,193,686.50	100
Park, playground etc.	5,086,515.60	4.00
Park, playground etc. above 1 acre	4,939,311.34	3.88
Park, playground etc. above 6 hectares	3,574,300.32	2.81

6.2 Existing Distribution Pattern of Outdoor Play and Recreation Facilities

There is no uniformity in open space standard throughout Dhaka city (Siddiqui, 1990). The survey conducted by the researcher found that only 52 out of 90 Wards have some form of outdoor play and recreational facilities and the remaining 38 wards do not have any outdoor play facilities. The number of play and recreational facilities also varies considerably. A high concentration of outdoor play and recreation facilities is observed in Ward 33 (Motijheel Colony), Ward 40 (Agargoan), Ward 11 (Dhanmondi), Ward 1 (Uttara), Ward 8 (Mirpur) and Ward 19 (Gulshan, Banani). There are considerable variations in open space standard between old and new Dhaka (Siddiqui, 1990). It has been observed that in Ward 33 (Motijheel area) there are 13 playgrounds and parks but in some wards (58, 59 and 60) in old Dhaka, there is no outdoor play and recreation facility. It has been observed that the concentration of outdoor play and recreation facilities is more in the planned residential areas of Dhaka city. A ward-wise list of outdoor play and recreation facilities is attached in Annex: 8.

It has been observed that there is no equity for the distribution of outdoor play and recreational facilities in relationship to the number of residents in Dhaka city. In some of the most high density wards, there are no outdoor play and recreation facilities, for example, Ward 15, 16 and 37 are without any provision of outdoor play and recreation facilities although more than 100,000 people reside in these wards.

6.3 Existing Trends of Outdoor Play and Recreation Facilities

There is a decreasing trend of areas for outdoor play and recreation facilities in Dhaka city. The study conducted by Nabi (1978) found 1916 acres of open space in Dhaka city. Dhaka city had a total open space area of 1482 acres for a population of 2,661,752 (BBS, 2001). Of this total area, 317 acres were playgrounds and playfields and 1,165 acres were parks and other recreation facilities, which gave a ratio of 1:0.056 acres of open space per 1000 population in Dhaka city (Siddiqui, 1990).

The survey conducted by the researcher found about 1,266 acres of open space including playgrounds, playfields, parks, stadium and other open spaces in Dhaka city.

According to HPHCP (2001) survey, the population of Dhaka city is 5,202,195. Therefore, the ratio of open space per 1000 population in Dhaka city is 1:0.024. It is found that about 39% open areas disappeared from Dhaka city during the period from 1978 to 2004.

Table 6.2: Condition of open space with population of Dhaka city

Source	Population	Open Area	Ration of open area per 1000 population
Nabi, 1978		1916 Acre	
Siddiqui, 1990	2,661,752	1482 acres	0.56 acres per 1000 population
This research, 2005	5,202,195	1166 acres	0.24 acres per 1000 population

6.3.1 Accessibility

Multiple procedures exist with regards to the measurement of accessibility. There are five major groups for the measurement of levels of accessibility which are :(i) minimizing aggregate travel cost; (ii) maximizing demand; (iii) minimizing maximum distance; (iv) coverage; and, (v) spatial interaction technique (Nicholls and Shafer, 2001).

A study is conducted by the researcher in order to measure the accessibility of the parks and playgrounds for the children of the Dhaka city. Two different methodologies are used for the assessment, the Centroid Radii Measure of Accessibility which is a comparatively simple method by using distance and the Network Analysis Measures of accessibility, and a scientific method of using the GIS software. Geospatial technology like ArcView, a geographical information system (GIS), is used for this study.

- **Centroid Radii Measure of Accessibility**

The Centroid Radii approach identifies all areas and residents within the circumference of the circle as having adequate access. Figure 6.1 identifies the buffer areas of all parks, playgrounds and amusement parks of Dhaka city within half a mile distance. Figures 6.2 and 6.3 and Figure 6.4 and 6.5 show the parks, playgrounds and amusement parks above one acre and 6 hectare land areas respectively and the corresponding buffer areas. It is found that the total area of all the parks, playgrounds constitute about 4% of the land area of Dhaka city and the buffer area of these parks and playground within half a mile distance is 77.21 percent. The areas of parks and playgrounds above one acre and six hectares are 3.88 and 2.81 percent of land areas and the buffer areas are 74.05 and 20.95 percent respectively. Table 6.3 shows the actual and the buffer areas of the parks and playgrounds of Dhaka city:

Table 6.3: Actual and buffer areas of parks and playgrounds of Dhaka city

Category of Areas	Area(sq.m)	Percent (%)	Buffer Area (1/2 mile)	Percent (%)
Dhaka City Corp. area	127,193,686.50	100		
All parks, playgrounds etc.	5,086,515.60	4.00	98209455.35	77.21
Parks, playgrounds etc. (above 1 acre)	4,939,311.34	3.88	94190718.03	74.05
Parks, playgrounds etc. area (above 6 hectares)	3,574,300.32	2.81	26651853.38	20.95

The Centroid Radii method assumes the "as-the-crow-flies" distance between two locations as an acceptable approximation of the degree of spatial separation between them. The straight-line distance in most of the cases is not the case in reality as potential users cannot travel in straight lines; rather they have to move only along public rights of way. Thus the actual travel distance is always greater than the direct distance. For instance, Figure 6.1 shows that all most all the inner city areas are accessible to play and recreation facilities in Dhaka city. But, in reality most of these areas are more than two miles apart from these facilities. Therefore, measuring accessibility by using the Centroid Radii method is misleading, particularly for children. The second disadvantage of the Centroid Radii method is that it measures the spatial distance from the centre of the park rather than its boundary. If the size of the park or playground is big and irregular the possibility of underestimation of the service area becomes greater. The third disadvantage of the Centroid Radii method is that the boundaries are not necessarily accessible from all points. In most cases, users need to travel out of their way to reach the point of entry. The fourth problem with the method is that it does not consider the shape of the park as it draws a circle around the centroid of a park. Therefore, the traditional centroid method does not consider the shape, configuration of the boundaries, and the position of the point of access.

Figure 6.2 and figure 6.4 shows map of all parks, playgrounds and amusement parks which are above 1 acre and 6 hectares of land areas in Dhaka city respectively. Figure 6.3 and figure 6.5 shows the corresponding buffer areas for parks, playgrounds and amusement parks which are above one acre and six hectares respectively.

- **Network Analysis Measure of Accessibility**

The network analysis measure of accessibility is based on the measurement of distance along the roads and other public rights of way surrounding the parks and playgrounds.

According to this method, the appropriate distance, depending upon the type of facility, can be measured to or from each of the access points to each of the parks and playgrounds and then combined to form one aggregate service area. Figures 6.6, 6.7 and 6.8 show the service area for parks, playgrounds and amusement parks for all, above one acre and 6 hectare land areas respectively by using the network analysis.

The accessibility analysis is conducted for all the parks and playgrounds of Dhaka city using the network analysis measures. The aggregate service areas accessible to children of Dhaka city are found to be less than what is found using the Centroid Radii method. Table 6.4 shows the service areas accessible by using the network analysis:

Table 6.4: Service areas of parks and playgrounds by using network analysis

Category of Areas	Service Area (sq.m)	Percent (%)	Population Served	Percent (%)
Dhaka City Corp. area	127,193,686.50	100	5,202,195.00	100
Service areas (all parks, playgrounds etc.)	84,070,222.12	66.07	3,825,415.63	73.53
Service areas (parks, playgrounds etc. above 1 acre)	81,259,646.98	63.86	3,740,915.67	71.91
Services areas (parks, playgrounds etc. area above 6 hectares)	14,377,565.82	11.30	440602.01	8.47

It shows that the accessibility level of parks and playgrounds by using buffer area and service area analysis techniques is quite high, about 77% by using buffer area (Table 6.3 and Figure 6.1) and about 66% from service network analysis (Table 6.4 and Figure 6.6). The percentage of population within the service areas of all playgrounds, parks and amusement parks is found about 73% in Dhaka city. But it is also revealed that physical accessibility is not the only determining factor for using the outdoor play and recreational facilities. There are other predominant factors which strongly influence the use of outdoor play and recreation facilities such as gender, socio-economic condition and most importantly children's safety, security, condition of the facilities etc. Therefore it follows that without improving the physical, environmental condition of outdoor play and recreation facilities and most importantly giving due consideration to provision of facilities for girls, younger children and creating supportive environment for the poor children, the physical closeness of the facilities does not mean that the children within the buffer/service area can use these facilities.

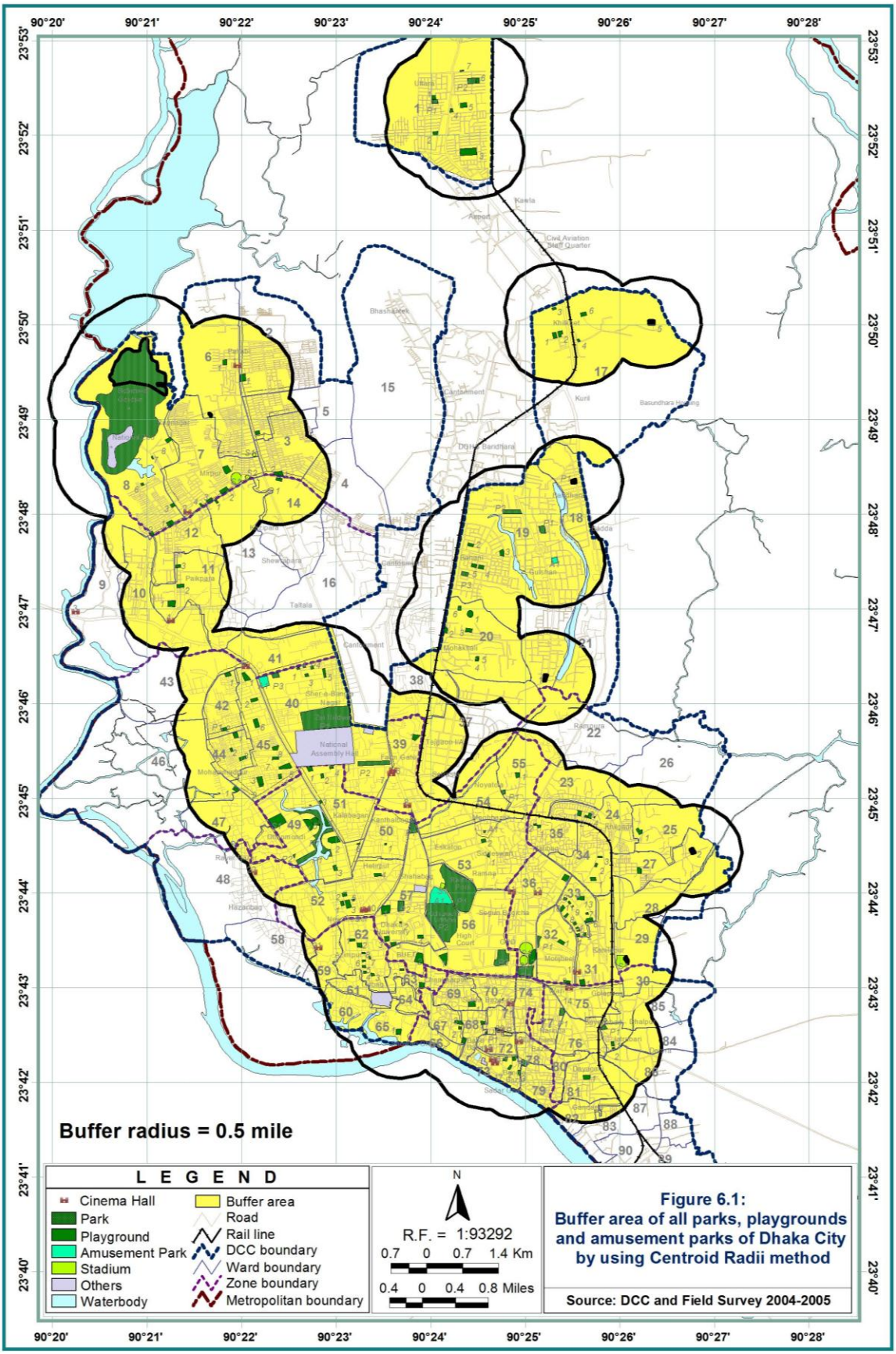
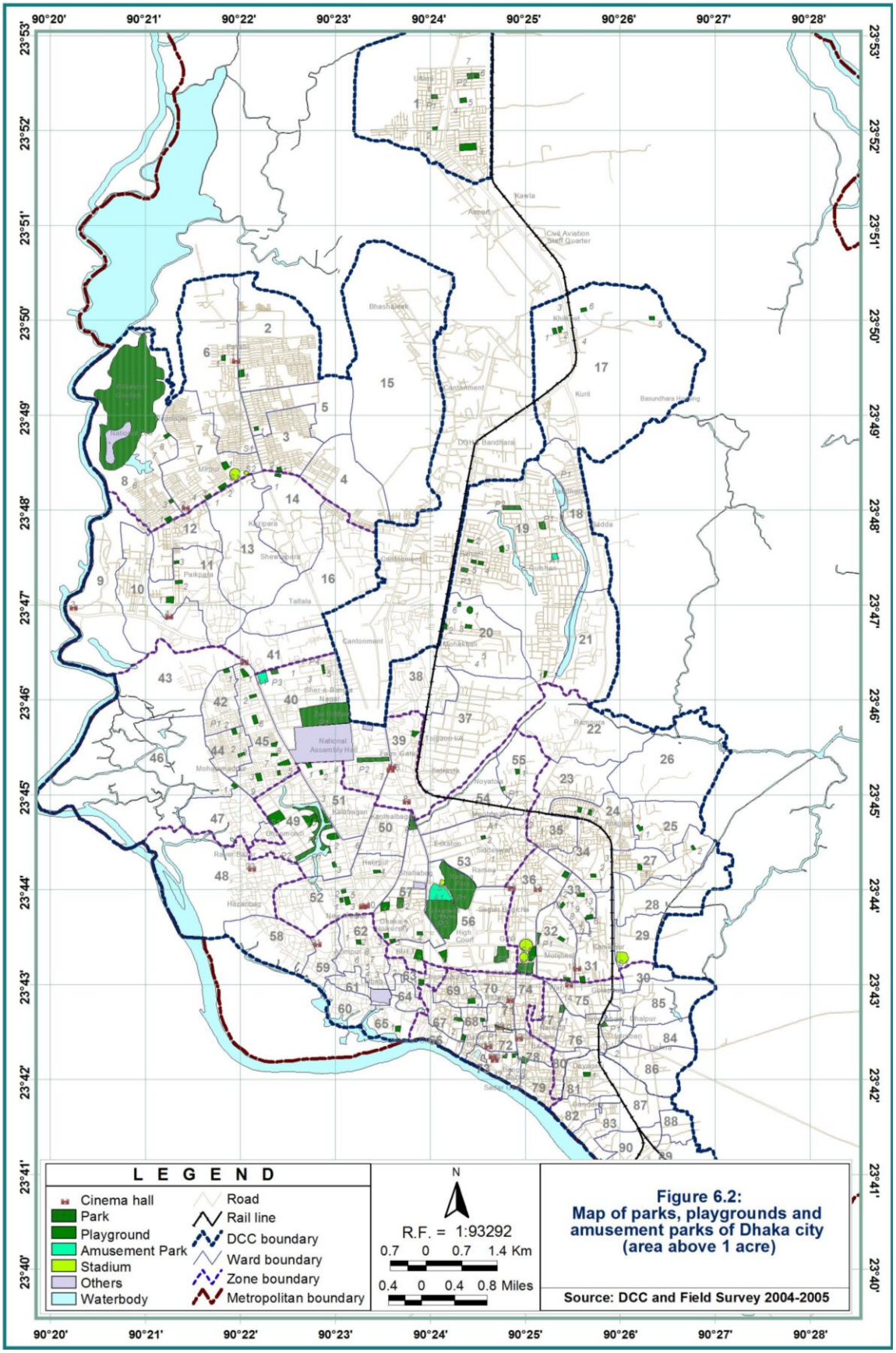


Figure 6.1:
Buffer area of all parks, playgrounds and amusement parks of Dhaka City by using Centroid Radii method


90°20'
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90°23'
90°24'
90°25'
90°26'
90°27'
90°28'
23°53'
23°52'
23°51'
23°50'
23°49'
23°48'
23°47'
23°46'
23°45'
23°44'
23°43'
23°42'
23°41'
23°40'
LEGEND
Cinema hall
Park
Playground
Amusement Park
Stadium
Others
Waterbody
Road
Rail line
DCC boundary
Ward boundary
Zone boundary
Metropolitan boundary
N
R.F. = 1:93292
0.7 0 0.7 1.4 Km
0.4 0 0.4 0.8 Miles
Figure 6.2:
Map of parks, playgrounds and amusement parks of Dhaka city (area above 1 acre)
Source: DCC and Field Survey 2004-2005

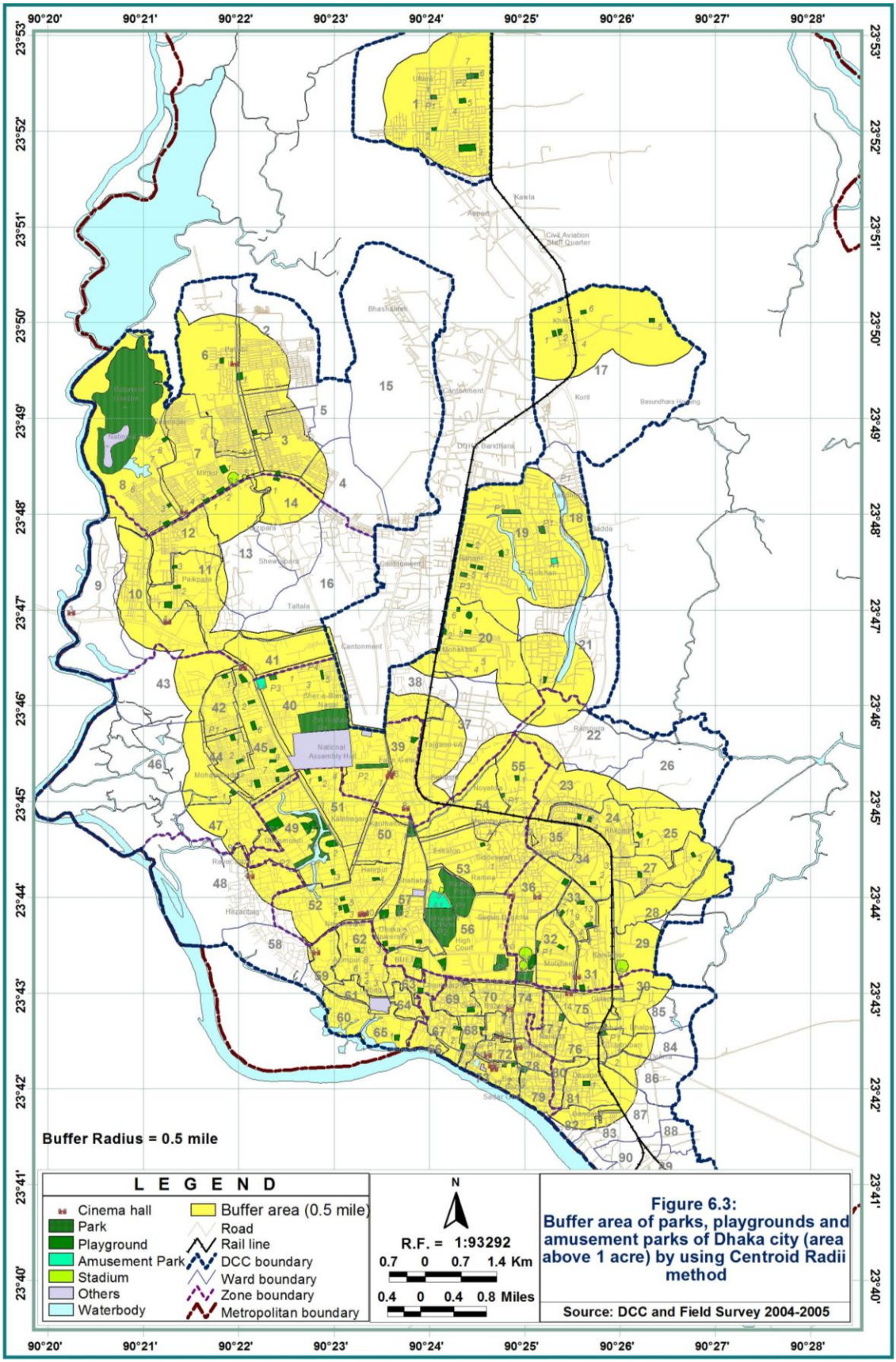

Figure 6.3:
Buffer area of parks, playgrounds and amusement parks of Dhaka city (area above 1 acre) by using Centroid Radii method

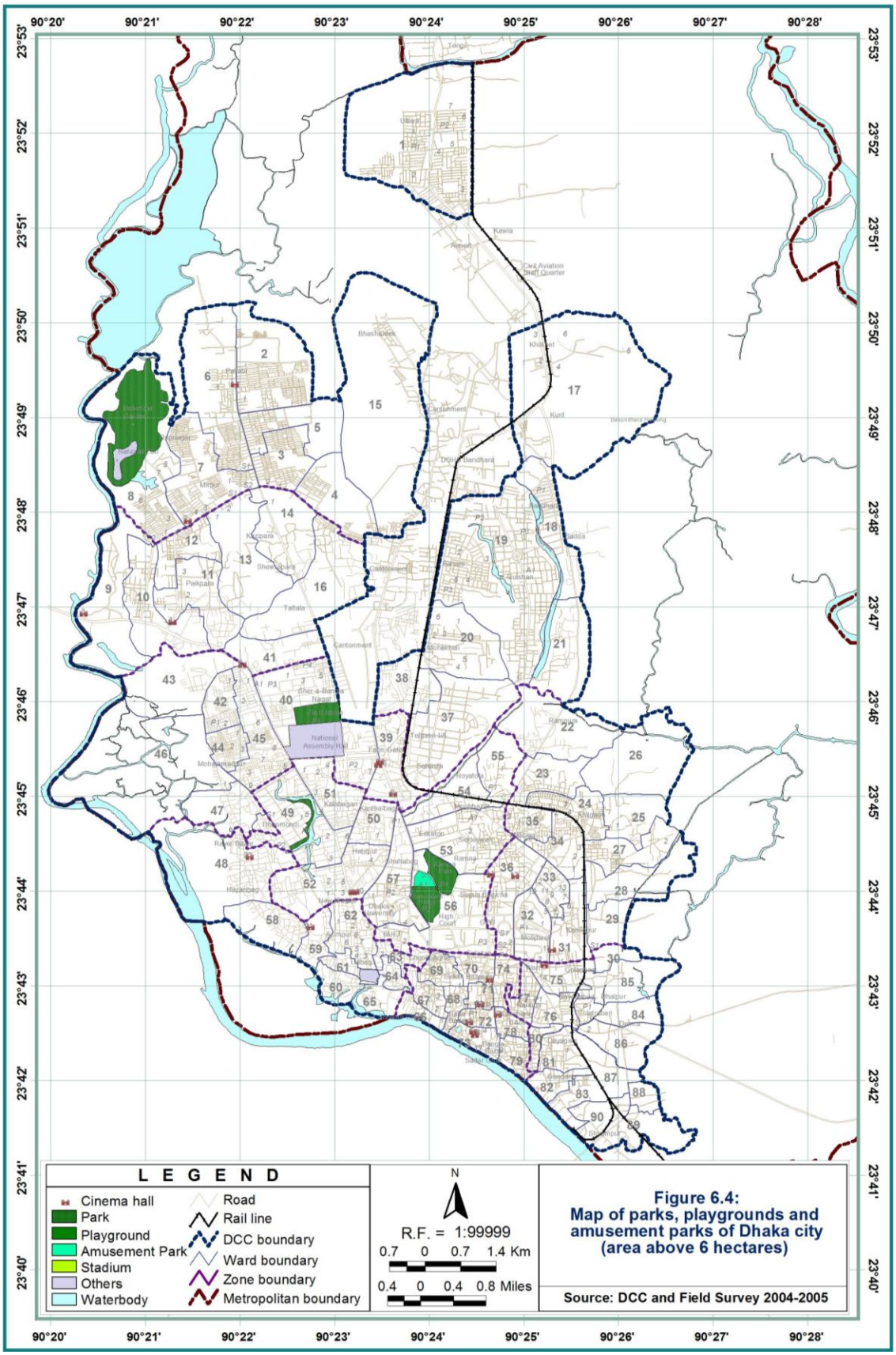

Figure 6.4: Map of parks, playgrounds and amusement parks of Dhaka city (area above 6 hectares)

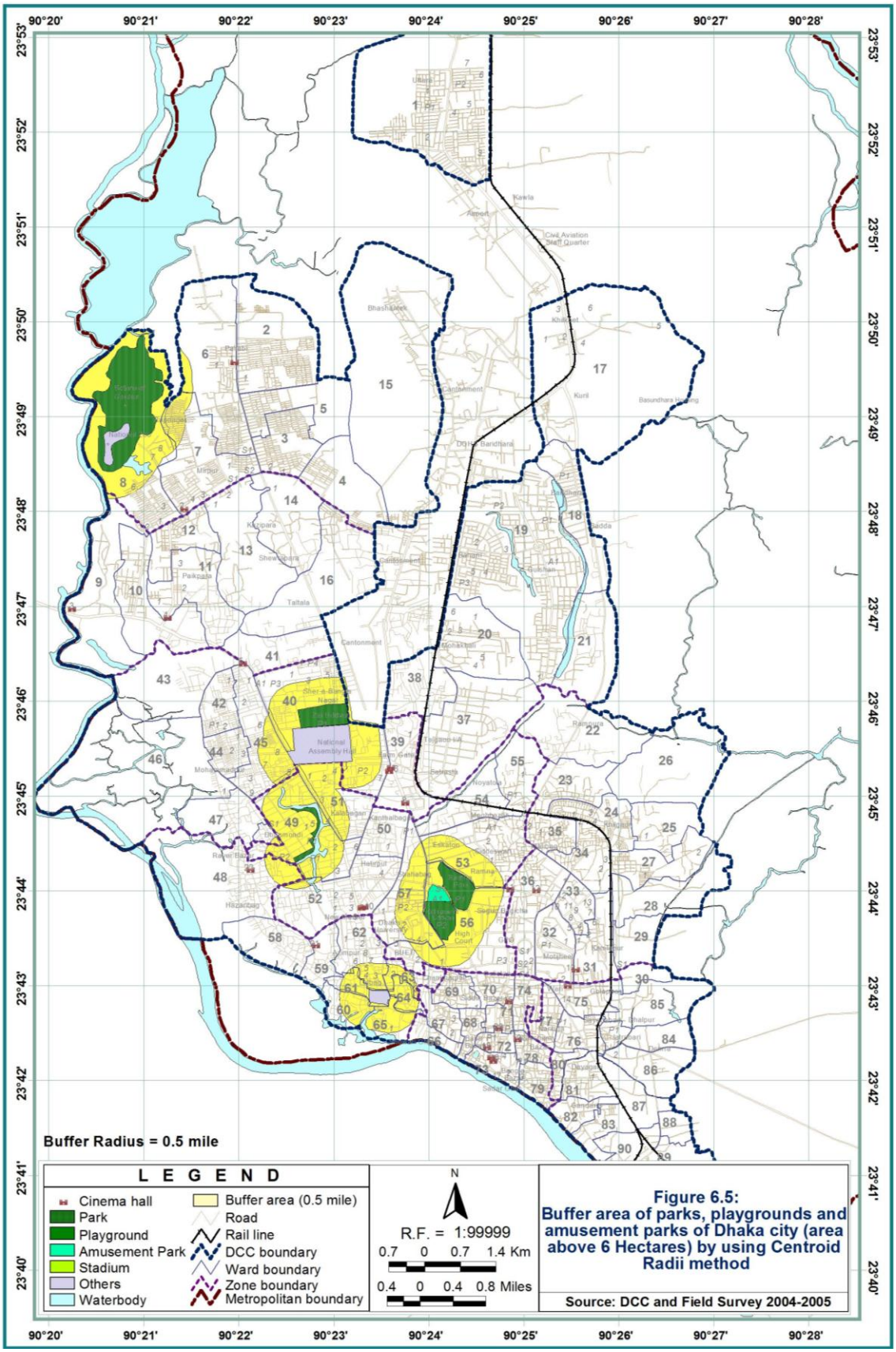

Figure 6.5:
Buffer area of parks, playgrounds and amusement parks of Dhaka city (area above 6 Hectares) by using Centroid Radii method

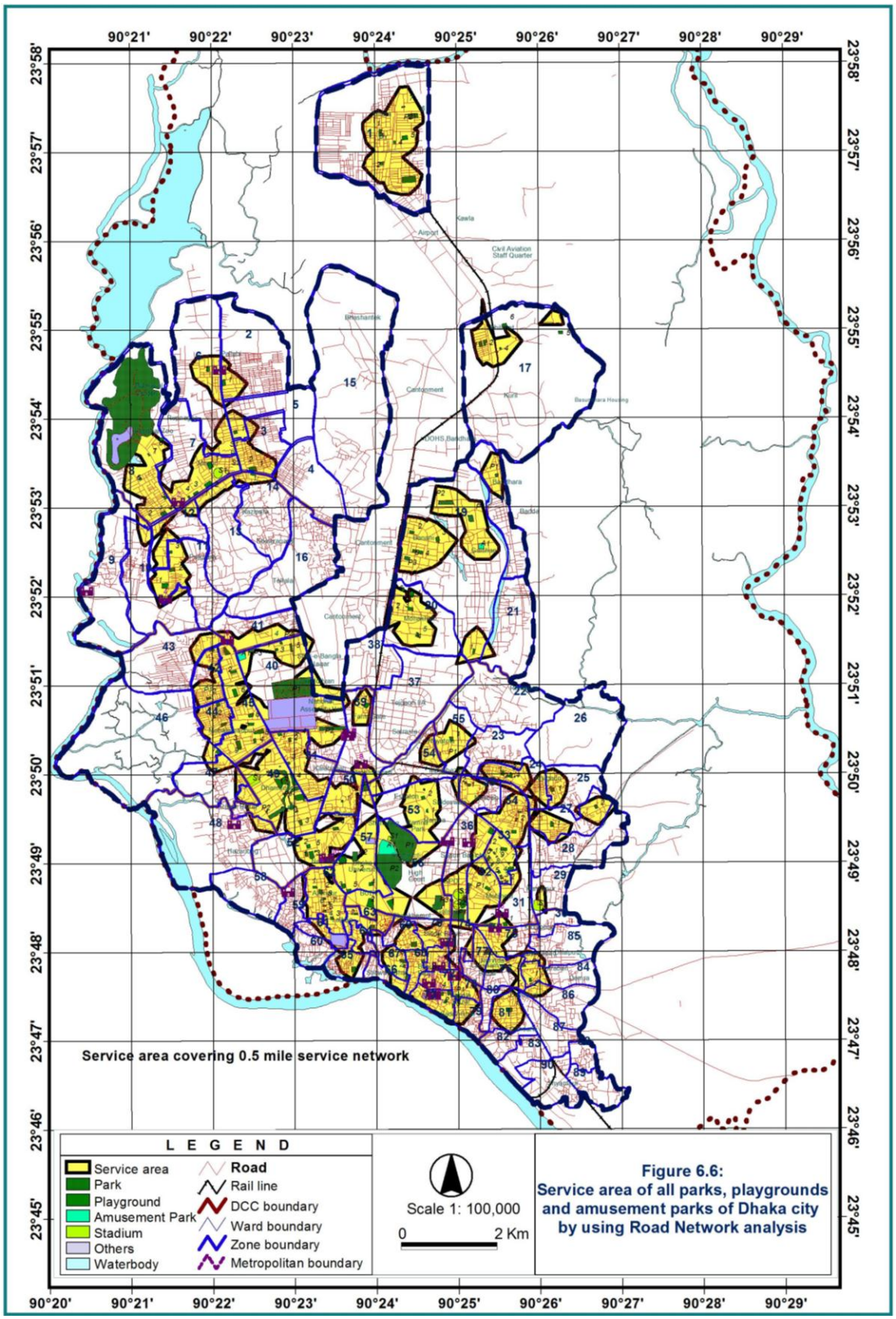

Figure 6.6:
Service area of all parks, playgrounds and amusement parks of Dhaka city by using Road Network analysis

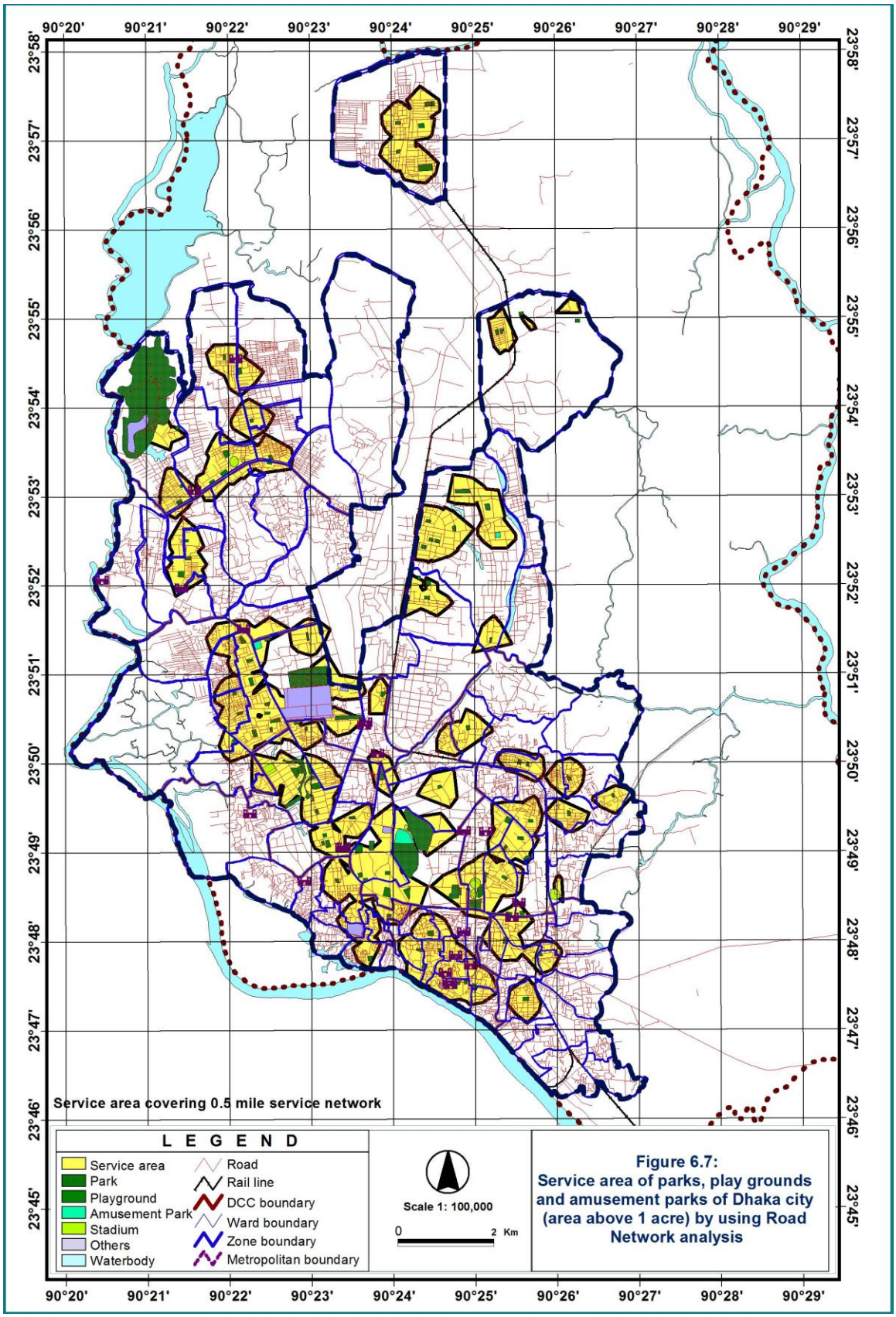

Figure 6.7:
Service area of parks, play grounds and amusement parks of Dhaka city (area above 1 acre) by using Road Network analysis

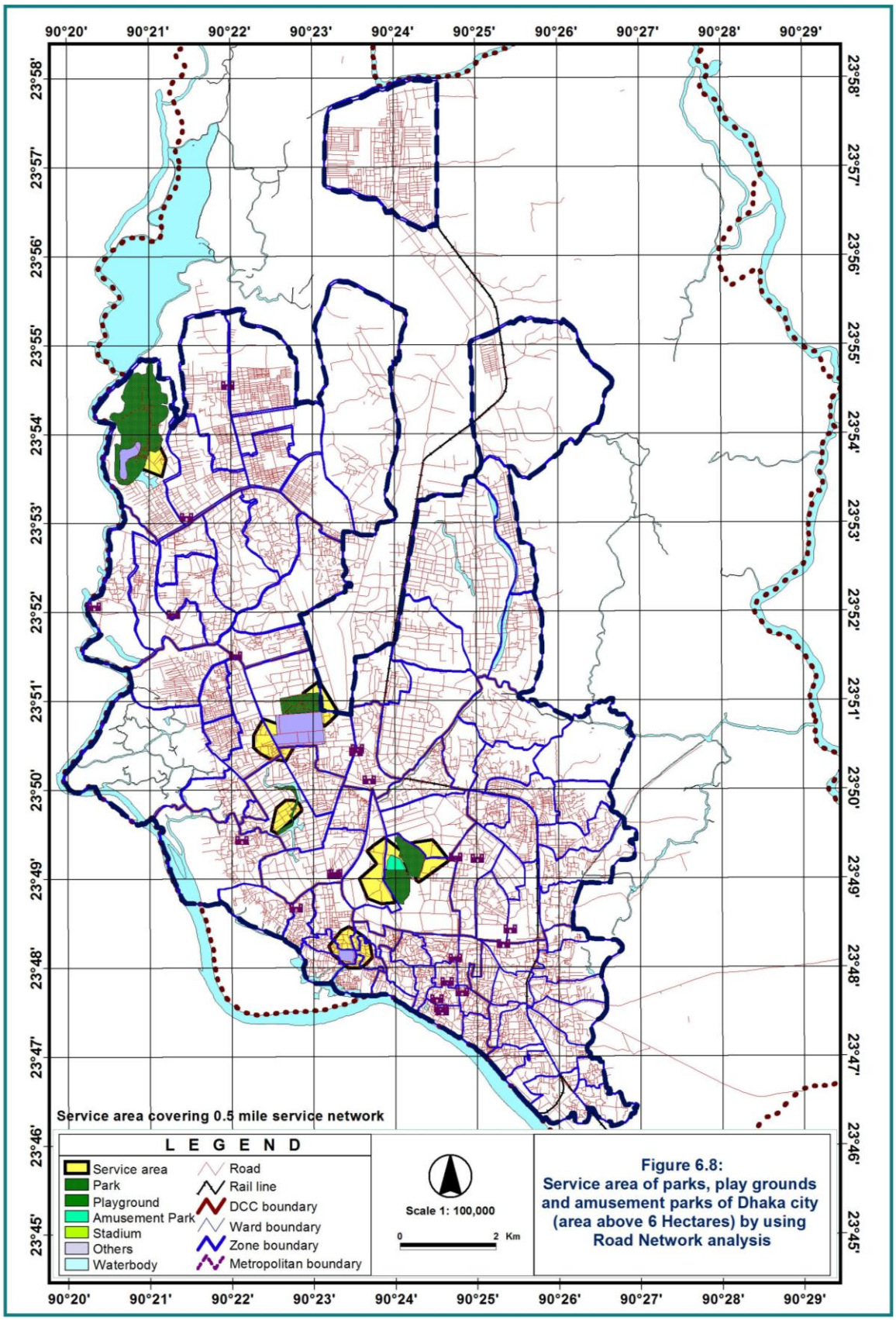

Figure 6.8:
Service area of parks, play grounds and amusement parks of Dhaka city (area above 6 Hectares) by using Road Network analysis

6.3.2 Analysis of Equity

In order to assess to what degree the distribution of open space is equitable to different socio-economic groups, the spatial analysis was carried out (Talen and Anselin, 1996). The analysis of equity can be done after assessing the accessible service areas by using the Centroid Radii and network analysis. The study of equity is based on the comparison of the demographic characteristics of those who do and do not have access to parks and playgrounds. As the accessibility analysis for Dhaka city gives a more distorted impression about accessibility than reality, further analysis of equity is not justifiable. There are many strong determinants rather than spatial distribution to influence the accessibility and equity of the children. Therefore, as the analysis of equity on the basis of accessibility will not give any useful results, no further analysis on equity is carried out in the research.

6.4 Factors Affecting Children's Accessibility

The accessibility of play and recreation facilities to the residents living within the buffer area or service area in Dhaka city is found quite adequate. The buffer or service areas within half a mile radius by using the network analysis is about 74%. The following are the determinants for accessibility in Dhaka city:

- **Gender:** It is found from this research that only 3% of girls use playgrounds and 15% use parks in Dhaka. Therefore gender is a key factor for the use of playgrounds and parks. Whether they are within the community or in a good condition, girls do not use these parks and playgrounds as they not encouraged by the parents and service providers to play outdoors. Also the facilities for girls' play e.g., basketball, volleyball, badminton etc. are not found in most of the playgrounds and parks in Dhaka city.
- **Social discrimination:** It is also found that the children are not allowed to use their neighborhood school playgrounds which are within the community. In some playgrounds and parks, there is a restriction on the children living in slums and streets. Only 4% children living on streets use playgrounds Dhaka city.
- **Affordability**: Also the slum and street children living close to amusement parks cannot afford to visit these parks because of high entry fees. From the research it is found that children living in streets and slums do not afford to visit amusement parks because the entry fee is not affordable to them.

- **Lack of maintenance**: The main reasons for not using these facilities are poor condition of the facilities, inadequate play accessories and lack of toilet facilities for children. Therefore, accessibility in terms of physical proximity does not imply that children living close to the outdoor play and recreation facilities are using them.
- **Lack of Security**: The research conducted by Ahmed and Sohail (2006), Siddiqui (1990), Biswas (2002), etc. identified the lack of security measures as the most important factor affecting the accessibility of children to outdoor play and recreation facilities in Dhaka city.
- **Attitude:** Play is not perceived as one of the priority needs for the development of children in Dhaka city. Even many parents do not think play and recreation is important for their children's development.
- **Encroachment:** Encroachment of existing playgrounds and parks is becoming a common phenomenon in Dhaka city. As a result of the lack of awareness and no initiative of the city authority to prevent such encroachment, there is no resistance to the unauthorized encroachment by the real estate developers. Even the city authority sometimes could not prevent them from encroachment of the scarce open space for profit oriented, commercial uses (The Daily Star, 2007).
- **Inadequate play and recreation accessories:** The issue of inadequate play and recreational accessories in Dhaka city is identified by many researchers in the past.
- **Equity:** It is also revealed from the study that equity in the distribution of playgrounds and parks is non-existent in Dhaka city.

6.5 Conclusions

The analysis on accessibility by using geographical information systems does not give the complete scenario of accessibility of outdoor play and recreation facilities to the children of Dhaka city. There are other socio-economic factors which are more dominant deciding factors for the accessibility of these facilities to the different socio-economic groups of children living in Dhaka city. It has also been observed that there is no equity for the provision & distribution of outdoor play and recreational facilities in Dhaka city in relationship to the number of residents.

CHAPTER 7: PARENTS' AND PROFESSIONALS' VIEWS

7.0 Introduction

Chapter 4 and Chapter 5 provided children's perceptions and views regarding their preferences and needs related to play and recreation provision and Chapter 6 presented the present condition of playgrounds and parks related to distribution pattern and accessibility of these facilities in Dhaka city. This chapter provides some planning and management aspects of children's outdoor play and recreation provision from adults (parents and professionals) point of view. It is important to consult with parents in order to know the parents' views on the children's play and recreation provision as their views play a very important role in the play and recreation behaviour of their children. Parents' views provide some important insights regarding the improvement of outdoor play and recreation provisions in Dhaka city. This chapter also presents the outcome of the interviews with the relevant professionals on the children's play and recreation issues.

The benefits of the consultations with the parents and professionals have direct contributions in many respects. Firstly, they help to understand the children's concern and issues from an adult's point of view and secondly, the information from parents and professionals also help to validate some of the issues raised by the children during the children's perception survey (Chapter 4) and children's views of the existing outdoor play and recreation facilities (Chapter 5). Finally, these consultations help in identifying the planning and management issues (Chapter 8), which ultimately helps in developing the planning and institutional framework for the children's outdoor play and recreation provision for Dhaka city (Objective 4).

7.1 Parents' Views

Questionnaire for parents' survey is attached in Annex: 6. Out of 101 parents, 90 mothers and 11 fathers are interviewed of which 48% are parents of slum children, 28% from the low and middle income segment and 25% of high income groups. Regarding the age of the respondents, about 70% of the parents are in the 31 to 50 years range, about 29% of the parents are below 30 years and only 3% of them are above the 50 years range.

Table 7.1: Age of the respondents

Means of Recreation	*Count*	*Percent (%)*
Below 30 years	29	28.7
31 to 40 years	52	51.5
41 to 50 years	17	16.8
Above 50 years	3	3.0
Total	101	100.0

Table 7.2: Sex of the respondents

Means of Recreation	Count	Percent (%)
Father	11	10.9
Mother	90	89.1
Total	101	100.0

Table 7.3: Income group of parents

Means of Recreation	Count	Percent (%)
Parents of slum children	29	28.7
Parents of middle income children	52	51.5
Parents of high income children	17	16.8
Total	101	100.0

It is found that watching TV is the most predominant leisure pattern of the parents. Sewing, reading books, listening to music, going to health clubs and going for shopping are also the leisure time activities performed by many parents. It is also observed that none of the parents visit playgrounds and parks for their recreation and only a few parents from the high income groups visit amusement parks. Parents of low/middle income groups watch television more than the high income and slum children.

Table 7.4: Leisure activities of parents

Means of Recreation	***Count***	***Percent (%)***
Watching television	92	91.1
Watching video	1	1.0
Shopping	4	4.0
Visiting amusement park	3	3.0
Eating out	3	3.0
Book reading	15	14.9
Going health club	4	4.0
Listening music	11	10.9
Sewing	32	31.7
Walking	1	1.0
Others	30	29.7
Total	101	100.0

Table 7.5: Time of recreation/leisure activities spent by parents by income group

	Parent of Slum Children		Low/ middle income group		High income group		Total	
	Count	Column%	Count	Column%	Count	Column%	Count	Column%
Television	22	78.6	45	93.8	25	100.0	92	91.1
Video					1	4.0	1	1.0
Shopping			1	2.1	3	12.0	4	4.0
Amusement park					3	12.0	3	3.0
Eating out					2	8.0	2	2.0
Book reading	1	3.6	5	10.4	9	36.0	15	14.9
Health Club					2	8.0	2	2.0
Listening music	2	7.1	5	10.4	4	16.0	11	10.9
Sewing	11	39.3	13	27.1	7	28.0	31	30.7
Walking	1		1	2.1			1	
Others	9	32.1	12	25.0	7	28.0	28	27.7
Total	28	100.0	48	100.0	25	100.0	101	100.0

It came out from the interviews with the parents that more than 70% of their children have some form of play and recreation facilities within half a mile distance from their homes. About 40% of their children went to playgrounds and about 20% of them went to an open ground in front of their houses and played on streets.

Table 7.6: Incidences of having recreational/ leisure facilities within half mile distance from home

	Count	*%*
Yes	71	70.3
No	30	29.7
Total	101	100.0

Table 7.7: Type of recreation facilities within half mile distance from home

	Count	%
Play ground	40	39.6
Park/amusement park	2	2.0
Open ground in front of homes	20	19.8
Indoor recreation in shopping center	1	1.0
Roof Top	1	1.0
Play on road /street	5	5.0
Courtyard	3	3.0
Others	29	28.7
Total	101	100.0

About 97% parents wanted to have playgrounds, parks and amusement parks within half a mile from their house. According to parents, the main reasons for using the nearest playground, park and amusement park by their children are for recreation (73%), easy accessibility (59%) and security (39%). The main reasons for not using the nearest outdoor recreation facilities are that children are not allowed to go there for security reasons (88%), fear of road accidents and fear of getting kidnapped.

Table 7.8: Maximum distance of the park/ playground/ amusement park from home

Distance	Count	%
Less than ½ mile	98	97.0
No answer	1	1.0
Within the campus/ boundary	2	2.0
Total	101	100.0

Table 7.9: Reasons for using nearest playground, park and amusement park

Reasons	Count	Column %
Secured	16	39.0
Clean	7	17.1
Well Maintained	4	9.8
Easy Accessible	24	58.5
Recreation	30	73.2
Others	2	4.9
Fun Play	2	4.9
Close to home	2	2.4
Total	41	100.0

Table 7.10: Reasons for not using the nearest playground, park and amusement park

Reasons	Count	Column %
Insecure	11	18.3
Grimy	1	1.7
Difficult to access	2	3.3
Lack of maintenance	2	3.3
Fear of getting mugged	1	1.7
Fear of getting kidnapped	27	45.0
Parents not allow to go there	53	88.3
Fear of road accident	28	46.7
Not for girls	7	11.7
Not within the compound	1	1.7
Others	2	3.3
Total		100.0

It is found that most of the parents are satisfied about the plant, grass and seating arrangements of the playgrounds, parks and amusement parks. The first two areas where parents are dissatisfied are lack of children's play facilities and sheds in playgrounds, parks and amusement parks.

Table 7.11: Satisfaction regarding facilities of playground/park/ amusement

	Satisfied		Dissatisfied		Not Applicable	
	Count	Column %	Count	Column %	Count	Column %
Plant	24	23.76	3	2.97	74	73.3
Flower	6	5.94	3	2.97	92	91.1
Grass	19	18.81	6	5.94	76	75.2
Branch	14	13.86	15	14.85	72	71.3
Shed	7	6.93	4	3.96	90	89.1
Lake/Pond	6	5.94			95	94.1
Walk Way	7	6.93	1	0.99	93	92.1
Restaurant	10	9.90	2	1.98	89	88.1
Toilet	5	4.95	5	4.95	91	90.1
Lighting	3	2.97	1	0.99	97	96.0
Children's Play	10	9.90	30	29.70	61	60.4
Drinking water	1	0.99	2	1.98	98	97.0
Total	101		101		101	

About 39% parents mentioned that regular play is very important for their children, of which parents from high income background, middle income and slum children mentioned 52%, 46% and 14% respectively. Good for health, refreshes the mind, physical exercise and joyful mind are the main benefits for regular outdoor play and recreation mentioned by parents.

Table 7.12: Parents' views on importance of playing regularly for their children

	Parent of Slum Children		Low/ middle income group		High income group		Total	
	Count	Column%	Count	Column%	Count	Column%	Count	Column%
Very Important	4	14.3	22	45.8	13	52.0	39	38.6
Refresh mind			6	12.5	1	4.0	7	6.9
Good for body					2	8.0	2	2.0
Good for brain	1	3.6	1	2.1			2	2.0
More appetite			1	2.1	2	4.0	2	2.0
Good for health	21	75.0	13	27.1	2	8.0	36	35.6
Physical Exercise			2	4.2	2	8.0	4	4.0
Joyful mind	1	3.6	1	2.1	2	8.0	4	4.0
Important			1	2.1			1	
If there is a play ground close to home	28		1	2.1			1	1.0
Play video games/ TV may harm eye sights					1	4.0	1	1.0
Physical and mental development					1	4.0	1	1.0
Mix with other children					1	4.0	1	1.0
Other	1	3.6	1	2.1	2	8.0	4	4.0
Total	28	100.0	48	100.0	25	100.0	101	100.0

About two-thirds of the parents are dissatisfied about the play and recreational facilities available for their children and one-third are satisfied with the available facilities for their

children. The main reasons for the dissatisfaction are lack of proper play environment and no play space for girls.

Table 7.13: Reasons for dissatisfaction regarding play and recreational facilities

	Parent of Slum Children		Low/ middle income group		High income group		Total	
	Count	Column%	Count	Column%	Count	Column%	Count	Column %
No response	4	28.6	21	65.6	16	84.2	41	63.1
No play space for girls	2	14.3	1	3.1			3	4.6
No environment for play	1	7.1	7	21.9			8	12.3
Need more play accessories like seesaw, swing etc.	2	14.3					2	3.1
Need a bit better condition	2	14.3	2	6.3	2	10.5	6	9.2
Girls play inside the houses, cannot go out	2	14.3	1	3.1			3	4.6
Girls cannot go out of the house for play	1	7.1			1	5.3	2	3.1
Total	14	100.0	32	100.0	19	100.0	65	100.0

Regarding the role of parents for the improvement of play and recreation facilities, 42% parents felt that they did not have to do anything, 26% expressed their financial inability to help and about 11% mentioned that on their own they will be unable to do anything; and also some of them mentioned that there is no space available for their children's play in their community. But, 11% of parents wanted to work together to improve the play environment in their community and 9% to provide financial support for the improvement of the play in their area. Also a few of them mentioned about the launching of an awareness programme on play and recreation and also expressed the desire to raise funds together to add some play facilities in the open areas in their community. Even one of them mentioned writing a letter to the Mayor of Dhaka city for a playground for children in their community.

Table 7.14: Role of parents for improvement of play and recreation provisions for their children

	Parent of Slum Children		Low/ middle income group		High income group		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %
I don't have anything to do	14	50	23	47.9	5	20.0	42	41.6
Don't have means to improve facilities	2	7.1	2	4.2	0		4	4.0
I don't have time to take children to playground/park	2	7.1	0		0		2	2.0
What can I do?	7	25.0	2	4.2	0		9	8.9
I can ask commissioner to ask antisocial people not to come	3	10.3	0		0		3	3.0
I don't have any means to do anything	2	7.1	2	4.2	0		4	4.0
I am a poor person, I can't do anything for this	7	25.0	15	31.3	4	16.0	26	25.7
I can take them to a park	1	3.6	0		0		1	1.0
I can talk to ward commissioner	3	10.7	1	2.1	1	4	5	5.0
I can't do anything alone	3	10.7	6	12.5	2	8.0	11	10.9
We can work together to improve environment of play ground	1	3.6	5	10.4	5	20.0	11	10.9
I wrote a letter to Mayor for a playground for our children	1	3.6	0		0		1	1.0
I can provide financial support	0		5	10.4	4	16.0	9	8.9
No space for park/ playground in this area	0		6	12.5	3	12.0	9	8.9
We can arrange play accessories by contribution	0		2	4.2	0		2	2.0
Together we can maintain the playground	0		2	4.2	0		2	2.0
We can launch an awareness/ movement for playground/ park	0		1	2.1	1	4.0	2	2.0
There are some open space, we can create a playground	0		0		2	8.0	2	2.0
We can create funds together to add some play facilities	0		0		1	4.0	1	2.0
Others	0		0		5	20.0	5	5.0
Total	28		48		25		101	

About 65% of the parents thought that the local government should allocate or donate land/space for children to play. Also 12% of the parents mentioned that government or local leader could arrange a play space for girls in their areas. Some of the parents seemed to have a lack of trust in the government and local leaders, as 9% of parents of slum and lower middle-income background mentioned during their interview as "they don't do anything for us, they don't think about us". Also some of the parents mentioned about the positive role of government and local leaders, particularly on the maintenance, cleanliness of the playground (8%), security and safety of the play and recreation facilities (9%). About 5% of parents mentioned that instead of allocating more plots, government and real estate developers could provide playgrounds in their residential areas. Three parents from high income background mentioned arranging playground

parks by evacuating slums in their areas. One of the parents mentioned the necessity for the development of policy on children's play and recreation facilities in Dhaka city.

Table 7.15: Parents views on the role local leaders/ planners/ developers

Role of local leaders/planners/developers	Parent of Slum Children		Low/ middle income group		High income group		Total	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %
They can arrange a play space for girls	5	17.9	6	12.8	1	4.0	12	12.0
They can maintain the cleanliness of the play ground	6	21.4	2	4.3	0		8	8.0
They can arrange see – saw, swing etc.	1	3.6	0		0		1	1.0
Arrange bat, ball etc.	1	3.6	0		0		1	1.0
They can fill up the pond to create playground	1	3.6	0		2	3.6	3	3.0
Take initiative to improve environment of playground	4	14.3	0		1	4.0	5	5.0
Restrict anti-social people to come to playground	3	10.7	1	2.1	1	4.0	5	5.0
Govt. can allocate a space for children to play	7	25.0	29	61.7	17	68.0	53	53.0
They don't do anything for us, they don't think about us	3	10.7	6	12.8	0		9	9.0
They can arrange a play space for girls	0		1	2.1	0		1	1.0
Can establish security and safety	2	7.1	3	6.4	4	16.0	9	9.0
They can level/repair the playground	1	3.6	0		0		1	1.0
Govt. can donate lands for children's play	6	21.4	6	12.8	0		12	12.0
They can arrange a park close to home	0		2	4.3	0		2	2.0
Arrange a boundary around open spaces for play	2	7.1	1	2.1	0		3	3.0
Open school playground after school hours	0		1	2.1	0		1	1.0
Instead of allocating more plots, can arrange playground	0		1	2.1	4	16.0	5	5.0
Develop policy for children's play and recreation	0		0		1	4.0	1	1.0
Arrange playground/ park by evacuating slums	0		0		3	12.0	3	3.0
Others	6	21.4	10	21.3	6	24.0	22	22.0
Total	28		47		25		100	

The following section highlights the key findings from parents interviews.

7.1.1 Key points from Parents' Interview

Parents don't use playgrounds and parks: It came out from the survey that parents do not use playgrounds and parks for their recreation. Watching TV is the predominant means of recreation among the parents of Dhaka city.

Lack of security is the main reason for not using the nearest playgrounds and parks by the children: Parents do not allow their children to use the nearest playground/park due to lack of security, fear of road accident and fear of kidnapping.

Most of the parents wanted the play and recreation facilities within half mile distance from their home: About 97% parents wanted to have playgrounds, parks and amusement parks within half a mile from their house. According to parents, the main reasons for using the nearest playgrounds, parks and amusement parks are for recreation (73%), easy accessibility (59%) and security (39%).

Parents of the higher income group recognized the importance of play for their children more than the parents from lower income group: About 39% parents mentioned that regular play is very important for their children, of which parents from high come background, middle income and slum children mentioned 52%, 46% and 14% respectively. Good for health and refreshes the mind are the main benefits for regular outdoor play and recreation mentioned by parents.

Most of the parents are dissatisfied about the existing play and recreation facilities available in Dhaka: About two thirds of the parents are dissatisfied about the play and recreational facilities available for their children in Dhaka city. The main reasons for the dissatisfaction are lack of proper play environment and no play space for girls.

Parents are satisfied with plants, grasses, and seating arrangements and dissatisfied about lack of children's play facilities and sheds in playgrounds and parks: It is found that most of the parents are satisfied about the plants, grasses and sitting arrangements of playgrounds, parks and amusement parks. The first two areas where parents are dissatisfied are lack of children's play facilities and sheds in playgrounds, parks and amusement parks.

Accessibility of play and recreation facilities to the children in terms of physical distance is high in Dhaka city: It came out from the interview of the parents that more than 70% of their children have some form of play and recreation facilities within half

mile distance. About 40% of their children went to a playground, or open ground in front of their houses and played on the streets.

Parents are less concerned about the equal opportunity for children from different socio-economic groups: Children of the lower income group complained about the biasness of the government towards any help for their children to play. Whereas the parents of higher income group mentioned that they want the slums to be cleared up to convert them to playgrounds.

Most parents do not feel any obligation to initiate any programme for children's play and recreation: About 70% parents felt that they did not have to do anything for this and expressed their financial inability to help. About 11% parents wanted to work together to improve the play environment in their community and 9% to provide financial support for the improvement of play facilities in their area.

Parents are not aware about the importance of their involvement in arranging play and recreation facilities for their children: More than 40% of the parents did not feel that they have to do anything about the improvement of play and recreation facilities for their children. Whereas some of the parents wanted to take a more active role to improve the play and recreation facilities for their children i.e. providing financial support, launching of an awareness campaign, writing a letter to the Mayor of Dhaka city etc. However, Parents' opinions about the role of local government and local leaders are quite strong and about 65% of them thought the government should arrange playgrounds and parks for their children.

7.2 Professionals' Views on Children's Outdoor Play and Recreation

Ten Key professionals from different agencies who are directly or indirectly linked with the children's outdoor play and recreation provision planning were interviewed. Key persons from RAJUK, Dhaka City Corporation, UNICEF, Institute of Architects, Bangladesh (IAB), Bangladesh Institute of Planners (BIP) were interviewed. The list of the persons interviewed is annexed in Annex: 7a. A general interview guideline is

followed during the interview (Annex: 7b). As the persons interviewed were from different agencies with diverse roles and responsibilities, in some cases the guidelines could not be followed. It is also found during the interview with Capital Development Authority (RAJUK) and Dhaka City Corporation (DCC) that none of these organizations feel that they are the responsible agency to ensure children's play and recreation facilities. These two government organizations blamed each other for the misappropriation of playgrounds and parks. The RAJUK representative stressed the fact of the inclusion of the playgrounds and parks in the Detail Area Pans (DAPs) of Dhaka city. The City Corporation focused on the lack of political will and budget constraints for the problems related to maintenance of parks and playgrounds of Dhaka city. The UNICEF representative stressed the importance of the child participation and emphasized that any development related to children should be consulted. He also mentioned that the Convention on the Rights of the Child (CRC) as the guiding principles to be followed, particularly for the development of children's outdoor play and recreation provision. The key persons of Bangladesh Environmental Activist Group (BAPA) strongly emphasized the protection of open spaces including parks and playgrounds for Dhaka city and also the enforcement of existing legislation regarding the protection of open spaces. The representative from BAPA also stressed on the mapping and listing of all the existing play and recreation facilities as the first step to protect playgrounds and parks from encroachment. The planners of different organizations emphasized the formulation of children's outdoor play and recreation policy as the starting point and the development of a separate agency for the development of children's play and recreation policy. They also recommended the launching of a public campaign for awareness generation on the importance of playgrounds and parks. In addition they recognized the importance of developing planning standards and guidelines of playgrounds and parks to be followed by developers. The representative from the Institute of Architects, Bangladesh (IAB) interviewed demanded immediate action regarding the development of guidelines for the high rise and real estate development in Dhaka city. The issues raised by the professionals are described in the following section.

7.2.1 Key Issues Raised by Professionals

The professional group endorses the following key aspects during their interviews:

Formulation of children's play policy for the children of Dhaka city: A play policy should be formulated and strategies should be chalked out at the working level for each

of the Wards. A working committee comprising residents of the Ward, politicians, school authorities, NGOs, civil society etc. should be involved in the development of the play strategy at Ward level.

Protection of existing playgrounds, parks and amusement parks: To protect the existing play and recreation areas, the list and the map should be publicly available at the Ward level so that the community can resist conversion of these play and recreation areas into other land use. It is important to include all the existing maps in the respective Detail Area Plans (DAPs) to protect the existing playgrounds and parks in Dhaka city from further encroachment and misuse. Allocation of open spaces for children' outdoor play and recreation should be made in the respective DAP maps in order to allocate future land required for the children's outdoor play and recreation provision. The proposed spaces for the playgrounds, parks and amusement parks should be based on the number of families/children living in those areas.

Establishment of a separate government agency for children's outdoor play provisions: As the responsibility for the outdoor play and recreation facilities lies with different agencies, a separate agency solely responsible for the development, maintenance and protection of children's existing outdoor play and recreation provision should be formed with committed professionals from child development, urban planning, architecture, social development, transportation and infrastructure planning backgrounds.

Use of community level vacant land as children's play areas: The vacant space for the residential development can be used as young children's play space.

Involvement of local government: Local government (Ward Commissioner) together with active participation pf the community can play a great role in the development of the children's play spaces appropriate to the age and sex.

Budget allocation for the children's play and recreation: Specific budget should be allocated for the children's play and recreation and children should be involved in the development of play initiatives. Social inclusion, equity and accessibility should be given due importance for the planning of play provision. The budget allocation should be based on the number of children living in a particular area, and for younger children,

adolescent girls, boys of high income, middle income, slum children and children living in streets.

Development of guidelines and standards for the real-estate developers: To improve the play and recreation provisions for children living in apartment buildings, the City Development Authority (RAJUK) should develop specific guidelines for the real-estate developers for the children's play and recreational facilities. The guidelines should endorse the minimum standard for the children's play and recreation.

The Convention on the Rights of the Child (CRC) should be the guiding principles for children's participation in the children's play and recreation provision: Children should be involved actively during the development of children's play policy for Dhaka city. It is important to ensure children's participation from all the socio-economic groups and gender for the appropriate policies, strategy formulation, play standards and design of play facilities. Children's participation is the key to success of any child-related interventions. As play is children's affair, it is important to involve children in the planning of the play provision. The Convention on the Rights of the Child (CRC) should be the guiding principles for children's participation in the children's play and recreation provision. High level advocacy and policy support is the key to generating public awareness on the children's play. Public awareness about the importance of play is also very pertinent to boost the political will in this regard. The policy should be incorporated with the National Children Development Policy of Bangladesh and it should be developed in consultation with a wide range of relevant stakeholders.

Public awareness creation about the importance of children's play: As the issue of children's play is not the priority for many parents and service providers, there is a need for launching a social movement on children's play and recreation in Bangladesh.

Advocacy and institutional support: High level advocacy and policy support is the key to generating public awareness on children's play and recreation. Public awareness about the importance of play is also very pertinent to strengthening political will in this regard.

7.3 Conclusions

This chapter has set out to identify the views of parents and professionals who directly and indirectly have influence on the children's outdoor play and recreation provision in Dhaka city. Parents' and professionals' views provided in this chapter have made very important contributions to identify the implications of their views in the planning and management of the outdoor play and recreation provision for Dhaka city from an adult's point of view. Their views also validate with the factors identified from the literature review and children's perceptions and users' points of view. The implications of parents and professionals' views identified in this chapter will be further analyzed and compiled in the next chapter in order to formulate the planning and institutional arrangement framework for the children of Dhaka city.

Most of the parents recognized the importance of regular outdoor play for their children except the parents of slum children. Only 14% of the parents of slum children mentioned that regular play is very important for their children. Parents should give extra effort and time to take the younger boys and girls to the playgrounds and parks and they also need to be involved in the formation of the recreation and sports clubs. More than 40% of the parents did not feel that they had to do something about the improvement of play and recreation facilities for their children. However, some of the parents wanted to take a more active role in improving the play and recreation facilities for their children i.e. providing financial support, launching of awareness campaign, writing letters to the Mayor of Dhaka city etc. However, parents' opinions about the role of local government and local leaders are quite strong and about 65% of them thought that government should arrange playgrounds and parks for their children.

The importance of play is not always well recognized and valued, especially in the context of developing countries where poverty is the major concern. Parents, play providers and others who deal with children should be encouraged to support play as a basic right for children. Advocacy for protecting children's play rights should be taken as one of the key issues for child development. This can be motivated by personal contact between children and "decision makers'. Such contact between children and urban officials and community leaders will make them more sensitive to children's issues.

Workshops and other public events are needed to be organized to raise awareness and to bring children and parents together with city officials and community leaders to discuss issues and draft action plans. UNICEF can play a vital role in this regard. Child advocates must be vigilant in protecting this right. Effective advocacy can be done through demonstrations and action research for play and recreation facilities with relevant research and play service providers. The problems and potentialities of playgrounds and parks need to be addressed by innovative community–driven, environmentally sustainable, child-, gender- and socio-economically sensitive strategies and standards.

CHAPTER 8: COMBINED ANALYSIS

8.0 Introduction

The research set out to explore children's perceptions and how their desires, imaginations and needs could impact on the outdoor play and recreation provisions of Dhaka city. Having undertaken the children's perception study, users' views, observation of outdoor play and recreation facilities, assessment of accessibility and equity, parents' and professionals' feedback, and this chapter will synthesize and combine with a view to identifying the factors and issues for the planning of outdoor play and recreation provisions of Dhaka city.

8.1 Factors for Children's Outdoor Play and Recreation Provisions

It is found that most of the factors affecting children's outdoor play and recreation provisions varied significantly across the age (young & adolescents); socio-economic conditions (children living in street, slum, unplanned area and planned areas) and most importantly with the gender (boys & girls). But it is also revealed from the research that there are quite a number of common factors applicable across the age, gender and socio-economic background of children living in Dhaka city. Following are the factors affecting design and policy of children's outdoor play and recreation.

8.1.1 Factors Related to Age Group

Play and recreation needs for the younger children are different from the adolescents even in the same gender group. It came out from the children's perception study that girls and boys of younger group have more or less similar desires and imagination for their leisure time. But, the patterns, needs and imagination of adolescent boys and girls are quite different.

i. Young and adolescent children's play patterns, their desires and dreams about play and recreation are different: Watching TV is the predominant means of recreation for the young children group. Also playing cricket, football, marbles, reading story books, playing hide and seek, drawing, playing computer games, riding bicycle, playing with toy

cars and dolls etc. are the common play and recreation activities among younger children. Most of the adolescent boys play outdoor games like cricket, football, badminton etc. Sleeping, playing computer games, sitting idle or sometimes gossiping or chatting with friends, listening to music and walking on the rooftop etc. are the predominant recreation patterns of adolescent groups.

ii. Young and adolescent children's desires about play and recreation are different: Big, clean playgrounds to play football, cricket and other sports are the most desirable things for young boys. Visiting parks, amusement parks, having a big pool where they can swim, playing hide-n-seek etc. are their favorite places to visit. More play accessories like carom, *ludo,* ball, badminton racket, see-saws, slides and swings are also their desired ones. Young children also wanted to visit shopping malls where there is a provision for children's play. Proper playgrounds and playgrounds with seating arrangements, netted roof top to play cricket are the most preferred aspects wanted by the adolescent boys. Going to gymnasiums, video game shops, to have exercise and aerobics centres, moving around with friends, having their own television, separate parks and sports club etc. are also desires of the adolescent groups.

iii. Young and adolescent children's dream about play and recreation are different: Visiting amusement parks is the dream of most of the young children and adolescents. The young groups dream of going to Cox's Bazaar, zoos, museum, going for picnicking, having ice-cream and Chinese food at the restaurant free of cost. The young groups living in slums dream of having more playing accessories like swings, see-saws and slides. Having their own television and riding their own car are also this group's dream. The adolescent group dream about going to museums, fun fairs, the airport, the assembly building, monuments, water front, historic sites, tea gardens, sea-beaches, forests, hills etc.

iv. Young and adolescent children's play and recreation needs are different: It is found that a playground or park cannot be used by younger children unless there are some special play spaces with play accessories designated for them. In order to promote increased opportunities for play for young children, all public parks, open spaces and playgrounds should have designated children's play areas with different types of play accessories. Younger children need play accessories like see-saw, slide,

bat, ball and space for playing hide-n-seek, marble, ball, skipping etc. which can be in front of their houses, access roads, roof of apartment buildings etc. Adolescents on the other hand need play space to play cricket, football, etc. on the streets, public open spaces or on the netted roof top etc. Young children wanted to have combined playground and park within the community, whereas the adolescent children wanted to have separate park and playground that could be adjacent to each other.

v. Younger group wanted to have play facilities closer to their home and visible to their families: It came out from children's perception study (Chapter 4) and user's view (Chapter 5) that the young groups (five to twelve years) wanted to play in close proximity of their homes and in a smaller and intimate environment. It is revealed from children users' (Chapter 5) views that young children wanted to play close to their home, on the streets and alleys in front of their houses rather than in formally designed public playgrounds. Adolescent groups prefer to play in playgrounds**.**

vi. Perceptions regarding the type and size of playgrounds varied with children's age: Young children wanted to have combined playground and park within the community, whereas the adolescent children wanted to have separate park and playground that could be adjacent to each other. The recommended distance of the playgrounds and parks is half a mile from the house but, for amusement parks it could be within two miles. Adolescents want to have bigger play areas than young children. Most of the children wanted to have a playground of the size of a football field but to young children a play space of a size of badminton court is quite acceptable.

vii. Informal play is common among the younger children of Dhaka city: Young children of Dhaka city found playing on the paved access roads, narrow streets, front yards close to their houses (Chapter 5). Young children use their whole environment for play- streets, waste land, and public open space, anywhere accessible. Research shows that for children, just because they need some space to play, doesn't mean that a playground is the best or only solution for the community.

viii. Playing with peers or friends is the priority need for all children particularly for young children: It came out from the children's perception study that all younger children irrespective of socio-economic background and gender wanted to play with

friends or peers. Adolescent children also needed friends and peers, but they also wanted to have spaces to hang out with friends.

ix. Young children predominantly visit amusement parks: It is found from the survey that 66% of the amusement park visitors belong to the age groups of 5-12 years.

Table 8.1 Factors of children's outdoor play and recreation provisions in relation to age group

Young Children (5-12 years age)	Adolescents (13-18 years age)
Watching TV is the predominant means of recreation for the young children group.	Most of the adolescent boys play outdoor games like cricket, football, badminton etc.
Big, clean playgrounds to play football, cricket and other sports are the most desirable things for young boys.	Proper playgrounds and playgrounds with seating arrangements are the most preferred aspects wanted by the adolescent boys
Amusement parks are the dream places for most of the young children. Cox's Bazaar, zoos, museum, go to picnic, having ice-cream and Chinese food at the restaurant free of cost are also mentioned as their dreams by the young groups.	Visiting amusement parks and zoos are the two most desired places for all the groups. Other than these two places, visiting museum, fun fairs, the airport, the assembly building, monuments, water front, going to historic sites, tea gardens, sea-beaches, forests, hills etc. as their dream.
Young children prefer to play close to their home and children's play areas should be visible.	Adolescents prefer to play in a proper playground and they don't mind to travel a bit to avail that.
Young children wanted to have a play space of a size of a badminton court.	Adolescents wanted to have a playground of the bigger size, size of a football field.
Informal play in front of their houses, narrow streets, access roads etc. is common among younger children	Adolescents play in a bigger space
Playing with peers or friends is the priority need for all children particularly younger children.	Adolescents need a safe place to hang out with friends.
Two third of the children visiting amusement parks belong to 5-12 years age group.	One thirds of the children visiting amusement parks belong to 13-18 years age group.
Younger children wanted to have combined playground and park within the community.	Adolescent children wanted to have separate park and playground that could be a bit far from their homes.

8.1.2 Factors Related to Gender

It came out from children's perception study that the desire or needs of the play and recreation varies significantly according to the gender of the children of Dhaka city. The following are the key factors:

i. Boys' and girls' play patterns are different: Playing cricket, football, carom, marbles, computer games, riding bicycle, listening to music, playing and hanging around with friends, *dangguli,* toy cars, just running around with friends, sleeping, etc. are the predominant play and recreation activities of boys. On the other side, watching television is the predominant means of recreation for girls. Girls do not play outdoor games. Playing indoor games like carom, *ludo*, hide-n-seek, drawing pictures, reading story

books, gossiping and chatting with friends, playing with dolls etc. are the common indoor games played by girls.

ii. Boys' and girls' desire about the play and recreation are different: Big, clean, proper playgrounds to play cricket, football and other sports are the most wanted things for the boys. Boys are also interested in going to parks, amusement parks, gymnasiums, swimming pools, video libraries, music schools, reading comics, visiting cultural centres, cyber cafés, and video games shops. Cox's Bazaar and Sylhet are their desired places to visit. Whereas visiting parks and amusement parks are the most wanted recreational activity for the girls group. Playing hide-n-seek, visiting fairs, gymnasiums, swimming pools, video libraries, music school, cultural centre, reading comics, having more friends in their neibourhoods, going to fitness centres and aerobics centres are their preferred choices for recreation mentioned by the girl's group. The girls' group, particularly from the lower income group, mentioned that they don't have any leisure time for themselves. Girls wanted to have separate playgrounds and parks where only girls are allowed to enter and having a safe and crime free environment outside their home is the dream of the girls.

iii. Imagination or dream about the play and recreation activities are more or less same for boys and girls: Visiting amusement parks, zoos and Cox's Bazaar, going for picnic, the museum, fun fairs, swimming pools, playing musical instruments, eating out, visiting friend's house, having a playground, playing cricket, visiting book fairs, monuments, waterfronts and places outside Dhaka City like *Chittagong, Sundarban, Sylhet, Rangamati,* etc. are both boys and girls dreams.

iv. Boys are the main users of the playgrounds and parks of Dhaka city: It is found from children's users' survey that 97% of playground users and 85% of parks users are boys in Dhaka city.

v. Very limited play and recreation opportunities for girls in Dhaka city: There are very limited play opportunities for girls in Dhaka city. There are very few sports club for girls. Also girls play facilities for basket ball, volleyball, badminton etc. are very insufficient in Dhaka city.

vi. Boys wanted to have a proper playground to play cricket, football etc. and girls wanted to visit parks and amusement parks: Boys irrespective of the socio-economic group wanted to have a proper, clean, protected playground to play outdoor games like cricket, football etc. whereas girls wanted to go to parks and amusement parks for their recreation.

vii. Separate playground for girls: The need for separate playgrounds has been indicated by some of the adolescent girls groups. It revealed that privacy should be considered during the design of playgrounds to accommodate girls. Parents wanted to have separate playgrounds or play spaces in their community for girls.

viii. Adolescent girls from middle income and living in slums do not have adequate leisure time: It is found that girls, particularly adolescent girls, have very limited leisure time. The adolescent girls living in streets and slums have very little leisure time whereas adolescent girls from middle and high-income group have enough leisure time but they do not have many opportunities for play and recreation. They tend to sit idle and chat with friends over the telephone.

iv. Boys from low income families wanted to sleep during their leisure time: It is found from the consultation with the boys group that they wanted to sleep at the drop-in centre during their leisure time.

Table 8.2 Factors of children's outdoor play and recreation provisions in relation to gender

Boys	Girls
Playing cricket, football, carom, marble, computer games, riding bicycle, listening to music, playing and hanging around with friends, playing with *dangguli,* toy cars, just running around with friends, sleeping, watching television, etc.	Watching television is the predominant means of recreation for girls. Girls don't play outdoor games. Playing indoor games like carom, l*udo*, hide-n-seek, drawing pictures, reading story books, gossiping and chatting with friends, playing with dolls etc.
Boys wanted to have a proper playground to play cricket, football etc.	Visiting parks and amusement parks are the most wanted recreational activity for all the four groups.
Visiting amusement parks, zoos and Cox's Bazaar are the three dream places for boys.	Visiting amusement parks, zoos and Cox's Bazaar are the three dream places for girls.
Boys prefer to play cricket, football etc. in general	Girls prefer to play basketball, volleyball, and other indigenous games
Boys predominantly use playgrounds (97%) in Dhaka city	Very few girls (3%) use playgrounds in Dhaka city
85% Boys visit parks in Dhaka city	15% girls visit parks in Dhaka city
Boys get more opportunity for play than girls	Girls get less opportunity to play than boys
Boys wanted to have a proper playground to play cricket, football safely etc.	Girls wanted to have a separate playgrounds only for them
Boys from low income groups wanted to sleep during their leisure time	Girls from low income group don't have adequate leisure time

8.1.3 Factors Related to Socio-Economic Condition of Children

The desire or needs of the play and recreation also varies according to the socio-economic background of the children of Dhaka city. The following are the key factors which vary according to the socio-economic backgrounds of the children:

i. Existing play patterns of different socio-economic groups are different in Dhaka city: Sleeping, playing marbles, footballs, moving around with friends are the common leisure time activities of this group. Street children also visit drop-in centre to watch TV and play carom, *ludo* etc. Slum children play a variety of indigenous games and also play outdoor games like football and cricket, d*anggulli, latim* etc. Slum children also visit drop-in centre to watch TV and play carom, *ludo* etc. Playing cricket and football, Watching TV and reading story books, are the predominant means of recreation for the middle income group. Among the children of high income group, Watching TV, playing computer games, reading story books & comics, playing with toy cars and dolls, chatting with friends over telephone etc. are the leisure time activities.

Studies conducted by Child (1983) and Philipp, (1999) with different social and racial backgrounds reveal that children's play pattern, content and style of play differ according to different socio-economic and racial background.

ii. Desires about play and recreation are different according to different socio-economic background of children of Dhaka city: Big, clean playgrounds to play football, cricket and other sports and visiting parks, amusement parks, funfair, etc. are the play and recreation activities of street children. For slum children, playgrounds free from obstacles (trees), and seating arrangements, visiting parks and having own television and more friends in their areas etc. are the most desired ones. Visiting parks, big playgrounds, amusement parks, gymnasiums, video game shop, sports centre/club etc. and having more play accessories like see-saws, slides and swings are the most desired things for the children of middle income group. The children from high income group wanted to visit parks, amusement parks, have more friends, gymnasiums, swimming pools, video libraries, music schools, cultural centre, cyber café, shopping mall with play facilities, playground or netted roof top etc.

iii. Dreams or imagination about play and recreation are not always different according to different socio-economic background of children of Dhaka city: Visiting amusement parks is the dream of children from all socio-economic groups. Visiting zoo is the dream of slum children and children from middle income group. Going for picnics and going abroad are also common dream for all socio-economic groups of children living in Dhaka city.

iv. Views on essential elements for a good playground are different according to different socio-economic groups of children: Differences are noted on the essential elements for a good playground. Street children cited clean and even ground, grass, free of cattle/animals and restrictions on antisocial activities as the most essential elements for a good playground. The essential elements for slum children are size (large), restriction on cattle grazing, grass, and calm and quiet areas. Calm and quite areas and free from anti-social activities are the most essential factors for children of middle income group. Even, calm and quiet areas and clean ground are the most important elements in a good playground according to children from high-income brackets.

v. Children from high-income group and street children do not use the playgrounds and parks in Dhaka city: It is observed that children from middle and low-income families normally play in the informal play areas like streets, or open spaces. The highest number of playground and park users are children from the middle-income groups e.g., 80% and 70% for playground and park respectively, then children living in slums (11% for playground and 11% for park), followed by street children (4% for playground and 16% for park) and the lowest number of children from the high-income group are found using playgrounds and parks (5% for playgrounds and 2% for parks).

vi. Children living in streets and slums do not have access to amusement parks in Dhaka city: It is revealed from the survey of the children users that children from these two socio-economic groups do not use amusement parks in Dhaka city as children have to pay to enter and enjoy the facilities. This factor also endorsed by other researchers in United States that children from low income families are less likely to participate in activities outside schools because of the cost of the organized activities including activity fees and ancillary cost related to transport (Dearing *et al.*, 2009). Special arrangements

should be made with the amusement park owners to allow children of lower income groups free entry once a month or on special national holidays Eid day, victory day, children's day etc. Play and recreation service providers should advocate for the children living in streets and slums to get access to play and recreation provisions and serve as the catalysts by motivating other organizations and agencies sharing a common interest in at-risk children in order to make an important contribution to their overall quality of life (Lobo and Olson, 2000).

vii. Children living in streets and slums wanted to visit drop-in centre for their recreation: For underprivileged children living in slums and streets, recreation clubs can be established by NGOs and other Community Based Organization (CBOs). The local well-off people should support these types of community based initiatives. Recreation clubs should organize visits to zoos, amusement parks, funfairs, picnics etc. for these children. Following are the major services and responsibilities to be provided by the drop-in or recreation centre:

- Indoor play spaces with play accessories like TV, Carom board, *ludo,* skipping rope, bat, ball etc.
- Arrange visits to amusement parks, sea-beaches, tea gardens and zoos;
- Organize art competitions, cultural events etc.
- Arrange picnics;
- Shelter facilities for children to sleep or take rest;
- Organize visits to stadium to watch games;
- Establish linkages with the local government and seek for support;
- Natural spots with ponds, trees, flowers, gardens etc;
- Special arrangements for ice-cream, Chinese food at parks and at the recreation/drop-in centre;
- Arrange outdoor play accessories for outdoor games like ball, racket, net etc.
- Organize visits to Shrine at Sylhet, and other historical places; and
- Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.).

viii. Children from middle and high income groups need recreation centre/club for their recreation: The children from high income groups have very little opportunity to

play outside of their apartments/houses. The major hindering factor for them is the lack of safety in the public playgrounds and parks, and as a result most of the children engaged in the home-based recreation. But these home based recreation activities don't offer the opportunity to do physical exercise, social interaction, attachment with nature etc. Therefore there is a need for the establishment of community level recreation centre for the children. The following facilities/services should be provided by the recreation centre:

- Arrange indoor play space with facilities like library, gymnasium, video game shop, exercise and aerobics centre etc.
- Organize outdoor sports activities like volley ball, basket ball, football, cricket, badminton etc.
- Arrange play accessories for outdoor games like ball, racket, net etc.
- Organize cultural events, art competition etc.
- Organize sports like volley ball, basket ball, football, cricket, badminton for girls;
- Arrange picnic, camping etc.
- Organize mobile library;
- Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.); and
- Establish linkage with the local government and seek for support.

Table 8.3 Factors for children's outdoor play and recreation provisions in relation to socio-economic background

Children Living in Streets	***Children Living in Slums***	***Children Living in Public Housing, Un-Planned Areas***	***Children Living in Apartments, House and Planned Areas***
Sleeping, playing marbles, football, moving around with friends are the common leisure time activities of this group.	Slum children play a variety of indigenous games and also play outdoor games like football and cricket, *danggulli, latim* etc.	Playing cricket and football, Watching TV and reading story books, are the predominant means of recreation for the children of the middle income group.	Watching TV. Playing computer games, reading story books & comics, playing with toy cars and dolls, chatting with friends over telephone etc.
Big, clean playgrounds to play football, cricket and other sports and visiting parks, amusement parks, funfair, etc.	Playgrounds free from obstacles (tree), and seating arrangements, Visiting parks and having own television etc.	Visiting parks, big playgrounds, amusement parks, gymnasiums, video game shop, sports centre/club etc.	Visiting parks, amusement parks, having more friends, gymnasiums, swimming pools, video libraries, cyber café, shopping mall with play facilities, playground etc.
Visiting amusement parks, zoo, *Cox's Bazaar* sea beaches, Chittagong, *Sundarban* forest, Sylhet, Rangamati, having own television, car, going abroad etc.	Visiting amusement parks, zoos, museums, fairs, monuments, having more play accessories, having own television, going for picnicking, etc.	Visiting amusement parks, having a big playground, cleaner and better place for playing, visiting Cox's Bazaar, zoos, going for funfairs etc.	Visiting amusement parks, sports centre, going for shopping, playing cricket, a large playground, having basketball & badminton courts, swimming pools, picnicking etc.
Clean and even playgrounds, grassed, free of cattle/animals and restriction on antisocial activities as the most essential physical element of a good playground	Large size, restriction on cattle grazing, grass, calm and quite environment are the most essential element of a good playground	Calm and quiet areas with even and clean grounds are the essential elements for a good playground	Calm and quiet areas and even and clean ground are the essential elements for a good playground
Only 4% of the playground users are street children	Only 11% of the playground users are slum children	80% of the playground users are children of middle income group	Only 5% of the children playground users are from high income group
Only 16% of the park users are street children	Only 11% of the park users are slum children	70% of the park users are children of middle income group	Only 2% of the park users are children of high income group
Street children don't use amusement parks	Slum children don't use amusement parks	About 78% amusement park users are from middle income group	Only 22% amusement park users are from high income group
Children living in streets wanted to visit drop-in centres for their recreation	Children living in slums wanted to visit drop-in centres for their recreation	Children from middle income group need recreation centres/clubs for their recreation	Children from high income group need recreation centres/clubs for their recreation

8.1.4 Common Factors

The following are the key findings from the children's perception study:

i. Visiting amusement park, zoo are the recreation activities most wanted by all socio-economic groups, both girls and boys and young children and adolescents: The top ten most preferred play and recreation activities of the children across the four socioeconomic groups, gender and age are visiting amusement parks, the zoo, children's park, playing cricket, football, going for picnicking, fun fair, visiting museum, hanging out with friends and going to natural settings (village, river front, glower garden etc.) etc. Apart from these activities, having badminton court, having more leisure time, library, having own television, reading story books etc. are also wanted by many children living in Dhaka city.

A study conducted by Philipp (1999) among the African American and European American adults found going to museums, going to the zoo, picnicking in a park, visiting festivals or fairs are among the top ten most preferred outdoor recreation activities wanted for their children.

ii. Children's views on their play and recreation are different from adults: In children's views, the most problem areas for playground are absence of grass, uneven ground and absence of toilet facilities. The problem areas in parks are the absence of trees and greeneries, shed and limited space. Insufficient lighting, seating arrangements and walkways are problems at the amusement parks. But, according to parent's survey, most of the parents are satisfied with plants, grasses and seating arrangement of playgrounds, parks and amusement parks. They are dissatisfied with the lack of play facilities and sheds in playgrounds, parks and amusement parks in Dhaka city.

iii. Cricket and football are the two most common outdoor games played in Dhaka city: Cricket (51%), football (22%), badminton (16%) are the three games observed being played by the children of Dhaka city. Other than these, hide-n-seek, 7-stone, marbles, volley ball and other games are found to be played by the children of Dhaka city.

iv. Physical condition of playgrounds in most cases is not suitable for children's play: Uneven ground, lack of grass and absence of boundary walls are the three main facilities observed in only 17-18% cases of playgrounds. Facilities for basketball, volley ball, swing and slides are observed in less than 5% cases. Toilet facilities are found in only 3% cases of playgrounds in Dhaka city. The two most common physical facilities in parks are seating arrangements and walkways. Swings and slides are observed in about one third of the parks.

v. Close proximity is the main reason for using playgrounds and parks in Dhaka city: It is found from the survey of the playground and park users that close proximity is the reason for using that playground and park. In the case of amusement parks, closeness is not a factor for visiting amusement parks. The main reasons for visiting amusement parks are the availability of play facilities, good maintenance and attractive designs. According to parents, one of the main reasons for using the nearest playgrounds, parks and amusement parks is easy accessibility (59%).

Many children irrespective of their age and socio-economic background wanted to have playgrounds and parks within their community, which can be adjacent. The recommended distance of playgrounds and parks is less than half a mile from their home. In the case of amusement parks, most of the children wanted to have an amusement park within two miles distance of their home. It is found from the users' survey that most of the children (78%) came from within half a mile distance of the playgrounds. About 50% of children came from within half a mile distance of the parks and amusement parks, only 15% came from a distance within two miles. Physical closeness is the main reason for children visiting a playground. It also came out from the parents' survey that most of the parents want the play and recreation facilities within half a mile distance from their home. In this regard, about 97% parents wanted to have playgrounds, parks and amusement parks within half a mile from their house.

vi. Lack of security and poor maintenance are the main reasons for not using playgrounds and parks in Dhaka city: During the interview with the children users of playgrounds, parks and amusement parks of Dhaka city, it is revealed that lack of security, poor maintenance and inadequate play facilities are the major reasons for not using the nearest playgrounds and parks in Dhaka city.

vii. Most of the children irrespective of socio-economic group, gender and age wanted to have more friends or peers: It came out very strongly that children wanted to play with their friends. For young children it can be play together for adolescents it can be in the form of hanging–out, talking or being together. This finding also seems to be universal as this factor appeared in a number of research works from all over the world (Ahmed and Sohail, 2005; Hart, 2002; Zeijl *et al.,* 2000; Scott and Willits, 1998; Barnett, 1990).

viii. Informal play is predominant among the children of middle income and slum children: Children are found playing in the paved roads, narrow streets close to their houses. It is found that most of the play areas are noisy, unclean, unfenced and littered with garbage. It is important to develop safe informal play spaces within communities. Access roads, streets, vacant lands etc. with in community should be made usable and accessible to the children living in the community. Parents should take some safety measures (e.g., speed breakers, fences, etc.) to allow their children to play in front of their houses, driveways, rooftops etc. where there is no open space available for them to play. Researchers from other countries also found that children play whenever and wherever they need to not only in the designated public playgrounds or parks (Barnett, 1999).

ix. Poor physical, maintenance and environmental condition of playgrounds and parks in Dhaka city: It came out from the observation that the physical conditions of the playgrounds are not always suitable for the play. In only 20% of the playgrounds, is the surface found to be even and only a quarter of the playgrounds are fully or partially covered by grass. Only less than 10% of the playgrounds have a boundary wall or have a partial wall. In more than 60% of cases the playgrounds are not maintained; indiscriminate disposal of rubbish, dirt, irregular mowing are the major problems observed in playgrounds. In only one fifth of the playgrounds, proper maintenance and satisfactory condition is observed. Regarding the environmental condition, noise, dust, garbage dumping and cattle grazing are found in the playgrounds.

The two most common physical facilities in parks are seating arrangements and walkways. Swings and slides are the two play facilities observed in about one third of the

parks and lights and toilet facilities are also observed in nine and eight cases respectively. Restaurants are found only in two cases. Out of 25, grass is found in ten cases and only six parks have a boundary wall or partial boundary wall. Lack of proper maintenance is one of the major problems in majority of the parks. In one third of the parks, poor maintenance of toilet facilities is found, compared to well maintain toilet facilities in two-thirds of cases. Noise and indiscriminate disposal of garbage and paper trash are the two major problems found in 15 parks in Dhaka Metropolitan City. Trees and shades are also found in most of the parks. Bad odour is a problem found in two parks. Adequate play facilities and accessories are observed in less than 5% of cases of playgrounds in Dhaka city. The issue of boundary also came out during the literature review that having a proper boundary is important for both the children and their parents to create spatial identity with a sense of ownership and control. It is found that the unfenced, left-over vacant space can not draw children's attraction (Roe, 2006; Gagen, 2000).

x. Inadequate play accessories and service facilities in playgrounds and parks: In only 17-18% of cases are goal posts for football (49 cases), cricket pitch (48 cases) and badminton courts (49 cases) observed in playgrounds. Facilities for basketball and volley ball, swings and slides are observed in less than 5% of cases of playground in Dhaka city. Toilet facilities are found only in 3% cases of playgrounds. Only less than 10% of the playgrounds have a boundary wall. The two most common physical facilities are seating arrangements and walkways in parks of Dhaka city. In only about one third of parks swings and slides are observed and light and toilet facilities are found in only in nine and eight cases (out of 27) respectively.

xi. Children are dissatisfied about the poor rubbish collection services, inadequate drinking water and lack of toilet facilities in playgrounds and parks of Dhaka city: The top three factors for dissatisfaction of children in playgrounds and parks are poor rubbish collection (73% for playgrounds and 61% for parks), lack of drinking water (71% for playgrounds and 81% for parks) and inadequate toilet facilities (71% for playgrounds and 76% for parks). Most children expressed toilets, shelters, and slides as the most important aspects for the playground users. According to park users, large size, cleanliness and greeneries are the most wanted facilities. Toilets, good lighting and restaurants are the essential service facilities for good amusement parks.

xii. Most of the parents are dissatisfied about the existing play and recreation facilities available in Dhaka: About two thirds of the parents are dissatisfied about the play and recreational facilities available for their children in Dhaka city. The main reasons for the dissatisfaction are lack of proper play environment, no play space for girls, and girls cannot go out for playing.

xiii. Children prefer to visit natural settings: There are some commonalities across all the socio-economic groups as all the children, irrespective of the socio-economic background, like to visit natural settings such as villages, rivers, and gardens. Children also prefer landscape with natural elements like sand, water body, trees, hill, spring etc. Researchers from other countries (Hart, 2002; Wyman, 1985; Child, 1983) reconfirmed children's natural affinity towards natural elements like sand pit. A research by Chenery, 1981 also showed the developmental benefits to campers by the end of the summer camp.

xiv. Children play in streets: The middle income and particularly the slum children of Dhaka city play in streets. Traffic in the streets can be moderated by providing speed breakers, footpaths, plants etc. based on the 'Home Zone' model. It is found from other researchers that streets can play a significant role in this respect and also that children play mostly on the street even when playgrounds are provided (Rowhani and Mahdjoubi, 2006: Abu-Ghazzeh, 1998).

xv. Space should be allocated for picnicking at the community level: It came out from children's perception study that children wanted to go for picnicking. Parents together with children can organize some special social events like picnics at the community Park and playgrounds. To make it more attractive and convenient to children, a picnic corner can be designed in the community.

xvi. Shopping malls and restaurants should provide children's play areas: It came out from the discussion particularly among younger children they like to go with their parent for shopping. It is also found from the literature review that shopping malls nowadays become a common leisure destination in cities. The study by Kabir (2004) also emphasized that the establishment of a small amusement park in a shopping mall

has high demand among citizens of Dhaka city and can be economically viable in the Dhaka city context.

xvii. School playgrounds and other public open spaces can be open for the community children for play: In order to promote children's play, the school playground and other open space adjacent to mosque and public office can be open for the community children to play. Special arrangements can be made with the school and with other concerned authority to ensure security and maintenance of these facilities.

xviii. Allocation of children's play space in high rise apartment buildings and housing complexes: Children living in apartments in Dhaka city do not have any play area to fulfill their play and recreation needs. A play space with play accessories, like volley ball, see-saw, slides, cycling track should be provided for the children. The "Building Construction Rules" should recommend standards for the children's play and recreational facilities in high rise apartment buildings. For a certain number of families living in an apartment complex, a certain percentage of land area should be ear-marked for children's play spaces. The minimum play standards such as the space per family and play equipments should be designated separately for the younger children, adolescent boys and girls. The City Development Authority (RAJUK) should develop specific guidelines for the real-estate developers for the children's play and recreational facilities. The guidelines should endorse the minimum standard for the children's play and recreation.

xix. Parents of higher income group recognize more the importance of play for their children than the parents from lower income group: About 39% parents mentioned that regular play is very important for their children, of which parents from high income background, middle income and slum children mentioned 52%, 46% and 14% respectively. Good for health, refreshes the mind are the main benefits for regular outdoor play and recreation mentioned by parents.

xx. Accidents occurred during children's play: It is found that injury and fatal accident occurred during children's play in Dhaka city. In one of the slum areas in Dhaka city, adolescent boys are found playing dangerously on real moving train. Young children are found playing /swimming in lake/river adjacent to slums without knowing proper swimming. To prevent accidents during children's play, community level play workers

should be organized. To prevent drowning among children, there is a need for all the water bodies to be fenced and the fencing should be checked periodically by the local municipality. Pictures on the warning sign should be placed for all the hazardous elements in the community.

The following table shows the summary of common factors for the planning of children's play and recreation provisions.

Table 8.4 Common factors of children's outdoor play and recreation provisions

Common Factors
i. Visiting amusement park, zoo are the most wanted recreation activities wanted by all socio-economic groups, both girls and boys and young children and adolescents
ii. Children's views on their play and recreation are different from adults
iii. Playing cricket and football are the most common outdoor games in Dhaka city
iv. Physical condition of playgrounds in most of the cases is not suitable for children's play
v. Close proximity is the main reason for using playgrounds and parks in Dhaka city
vi. Lack of security, poor maintenance and inadequate play facilities and accessories are the main reasons for not using playgrounds and parks in Dhaka city
vii. Most of the children irrespective of socio-economic group, gender and age wanted to have more friends or peers
viii. Informal play is predominant among the children from middle income group and slum children
ix. Poor physical, maintenance and environmental condition of playgrounds and parks in Dhaka city
x. Inadequate play accessories and service facilities in playgrounds and parks
xi. Children dissatisfied with poor rubbish collection facilities, lack of drinking water, and inadequate toilet facilities in playgrounds and parks
xii. Most of the parents are dissatisfied about the existing play and recreation facilities available in Dhaka city
xiii. Children prefer to visit natural settings
xiv. Children play in streets
xv. Space should be allocated for picnicking at the community level
xvi. Shopping malls and restaurants should provide children's play areas
xvii. School playgrounds and other public open spaces can be open for the community children to play
xviii. Allocation of children's play space in high rise building and housing complexes
xix. Parents of higher income group recognize more than the parents of lower income group
xx. Accidents occurred during children's play

Table 8.5: Factors linked with planning of Planning of ***children's outdoor play and*** *recreation provisions*

Factors linked with age of children

i. **Young and adolescent children's play patterns, their desires and dreams about play and recreation are different**
ii. **Young and adolescent children's desires about play and recreation are different**
iii. **Young and adolescent children's dreams about play and recreation are different**
iv. **Young and adolescent children's play and recreation needs are different**
v. **Younger group wanted to have play facilities closer to their home and visible to their families**
vi. **Young children wanted to have combined playgrounds and parks within the community, where as the adolescent children wanted to have separate park and playground that could be adjacent to each other**
vii. **Perceptions regarding the type and size of playgrounds vary with children's age**
viii. **Informal play is common among the younger children of Dhaka city**
ix. **Playing with peers or friends is the priority need for all children particularly for young children**
x. **Young children predominantly visit amusement park**

Factors linked with socio-economic condition of children

i. Existing play patterns of different socio-economic groups are different in Dhaka city
ii. Desires about play and recreation are different according to different socio-economic background of children of Dhaka city
iii. Dreams about play and recreation are different according to different socio-economic background of children of Dhaka city
iv. Views on essential elements for a good playground have combined playground and park within are different according to different socio-economic groups of children
v. Children from high-income group and street children group do not use the playgrounds and parks in Dhaka city
vi. Children living in streets and slums do not have access to amusement parks in Dhaka city
vii. Children living in streets and slums wanted to visit drop-in centre for their recreation
v. Children from middle and high income groups need to have community level recreation centre/club for their recreation

Factors linked with gender of children

i. **Boys and girls play patterns are different**
ii. **Boys and girls desires about the play and recreation are different**
iii. **Imagination or dream about the play and recreation activities are more or less same for boys and girls**
iv. **Boys are the main users of the playgrounds and parks of Dhaka city**
v. **Very limited play and recreation opportunities for girls in Dhaka city**
vi. **Boys wanted to have proper playgrounds to play cricket, football etc. and girls wanted to visit parks and amusement parks**
vii. **Separate playground for girls**
viii. **Adolescent girls from middle income and living in slums do not have adequate leisure time**
ix. **Boys from low income families wanted to sleep during their leisure time**

Common factors

i. **Visiting amusement park , zoo are the recreation activities most wanted by all groups**
ii. **Children's views on their play and recreation are different from adults**
iii. **Cricket and football are the most common outdoor games in Dhaka city**
iv. **Physical condition of playgrounds in most of the cases is not suitable for children's play**
v. **Close proximity is the main reason for using playgrounds and parks in Dhaka city**
vi. **Lack of security and poor maintenance are the main reasons for not using playgrounds and parks in Dhaka city**
vii. **Most of the children irrespective of socio-economic group, gender and age wanted to have more friends or peers**:
viii. **Informal play is predominant among the children from middle income group and slums**
ix. **Poor physical, maintenance and environmental playgrounds, parks**
x. **Inadequate play accessories and service facilities in playgrounds and parks**
xi. **Children are dissatisfied about poor rubbish collection services, inadequate drinking water and lack of toilet facilities in playgrounds and parks in Dhaka city**
xii. **Most of the parents were dissatisfied about the existing play and recreation facilities available in Dhaka city**
xiii. **Children prefer to visit natural settings**
xiv. **Children play in streets**
xv. **Space should be allocated for picnicking at the community level**
xvi. **Shopping malls and restaurants should provide children's play areas**
xvii. **School playgrounds and other public open spaces can be open for the community children to play**
xviii. **Allocation of children's play space in high rise buildings and housing complexes**
xix. **Parents of higher income group recognize more than the parents of lower income group**
xx. **Accidents occurred during children's play**

8.2 Key Policy Issues

A play policy should be formulated and strategies should be chalked out at the implementation level. A working committee comprising residents of the Ward Commissioners, politicians, school authority, NGOs, civil society etc. should be involved in the development of the play strategy for Ward level. As the responsibility for the outdoor play and recreation facilities lies with different agencies, a separate agency solely responsible for the development, maintenance and protection of children's existing outdoor play and recreation provision should be formed with committed professionals from children development, urban planning, architecture, social development, transportation and infrastructure planning backgrounds.

There is a need to launch a two-pronged strategy to increase access to play and recreation in Dhaka city. The first part involves lobbying for greater government participation in subsidizing children's play and recreation facilities. This can be done at a local level, where municipal councils can be urged to put more resources into play and recreation facilities. Municipality can provide the salary of the staff for the children's recreation centre for the low-income families. The second part of the strategy is to promote children's play and recreation in Bangladesh by drawing upon the many hidden resources that lie dormant within our own communities. For instance vacant plots, streets, backyards etc. within the community can be converted to children play spaces with little effort to make them traffic free and safe.

To plan and design children's outdoor play and recreation provisions in Dhaka city, it is important to consider the age, gender and socio-economic condition. It is also found that there are some common factors which are universal in this respect. For instance children's preference to visit natural setting (e.g. village with water body, tree) and young children's preference to play with friends irrespective of the country's socio-economic condition and cultural background. There are also some key issues to be taken into account for the planning of children's outdoor play and recreation provisions for Dhaka city. Following are the key policy issues identified to improve children's play provisions in Dhaka city:

i. Outdoor play and recreation is vital for child development and has impact on a child's psychological, educational, social, aesthetical and physiological development: There are several researches which found that play is the vital part of children's development and without play and recreation children's proper development is seriously obstructed (Hughes, 1990; Hart, 2002; Bartlett, 1999; Chawla, 2001; Beard and Ragheb, 1980; Mergen, 1975). Children without adequate outdoor play and recreation experiences do not develop as their full potential as adults.

ii. Children's active involvement in planning of children's outdoor play and recreation provisions in important: It has been important to involve children in the planning and implementation of children's play provision. It is revealed from different studies that children know better than the adult how to best utilize the available places. It is also important to ensure children's participation from all the socio-economic groups and both boys and girls and young children and adolescents for the appropriate policy/strategy formulation, play standards/guidelines of play service provisions. The provision of a playground does not mean that all the socio-economic groups, all age groups and both boys and girls can avail these facilities. As children's participation is considered as an evolutionary process, it should be transformed from the tokenism stage to the institutionalization stage (Hart, 1992; White, 1996). In UK, listening to children and young people and involving them in the planning process of the outdoor play and recreation has become a common practice (Bristol City Council, 2003). To include children's views at local level, the establishment of a Children's Consultative Council (CCC) at the Ward level is important in order to create a common platform for children and the local council. Representatives from schools, sports club, youth club, NGOs and civil society can work as the members of the CCC. The Children's Consultative Council will help to hear children's views and enhance their interaction at the local and city level. The prime responsibility of these CCCs is to assess the needs of all the socio-economic groups of children, including girls and young children, and prepare action plans and share these with the local government (Ward commissioners) and local leaders.

iii. The Convention on the Rights of the Child (CRC) should be the guiding principles for children's participation in the children's play and recreation

provisions: The Convention on the Rights of the Child (CRC) should be the guiding principles regarding children's participation in any aspects where children's wellbeing are directly or indirectly affected.. It is important to ensure children's participation from all the socio-economic groups and gender for the appropriate policies, strategy formulation, play standards and design of play facilities. Children's participation is the key to success of any child related interventions. As play is a children's affair, it is important to involve children in the planning of the play provisions

iv. Outdoor play and recreation provisions should be considered for all children irrespective of age, gender and socio-economic condition: It is now well established from the research that all children irrespective of their age, sex and socio-economic condition need to play and have access to recreation. If the play opportunity is not provided properly the overall development of children will be seriously obstructed.

v. Maximum utilization of open space to maximize the children's play opportunities of all groups: It is found from this research that there are still some unused spaces to be utilized for children's play and recreation at different parts of Dhaka city. The aim of the children's play policy should ensure that the city's common spaces, playgrounds, parks, vacant lands, river side, streets, thoroughfares, shopping areas, roofs, etc. are safe places for children's play. A wide range of play provisions from play facilities in a bus to visiting zoos, museums and other historic sites as well as sea beaches, tea gardens, etc. can be arranged for the children of different socio-economic groups irrespective of gender and age groups. In this respect, guidelines for creation of inspiring play environment by Bob Hughes should be considered.

vi. Application of appropriate play service standards: The application of standards is a key to ensure the safety, maintenance and appropriateness of children's play. Standards should cover the design, construction, maintenance and management of play facilities. Standards should also cover training, staffing and play equipment requirement for play services.

vii. Encroachment and misuse of playgrounds and parks should be stopped: Due to phenomenal increase of population over the last decades, and continuous encroachment of the open spaces by other commercial and real estate development,

open spaces for children's outdoor play and recreation have decreased considerably in Dhaka city. It is found from the survey that the total area of parks, playgrounds etc. consist of about 4% of Dhaka's land. The ratio of open area per 1000 population is 0.24 acres which is far below the standard for a city with more than 10 million population. There is a decreasing trend of areas for outdoor play and recreation facilities in Dhaka city. Encroachment of playgrounds and parks by the commercial and real estate developers is frequently reported in the daily newspapers. It is found that about 39% open areas disappeared from Dhaka city during 1978 to 2004. To protect the existing play and recreation areas, the list and the map should be publicly available at the Ward level so that the community can resist conversion into other land use of these play and recreation areas.

viii. Equity issue should be considered in the distribution of outdoor play and recreation facilities in Dhaka city: It is found from the study that the service providers do not consider any equity in the distribution of outdoor play and recreation facilities in Dhaka city. There are a number of Wards where there are no playgrounds or parks and more than 100,000 people living in these Wards are without out any parks and playgrounds. The following variables can be used in the equity analysis for Dhaka city: (i) population density; (ii) % of high income children; (iii). % of middle income children; (iv). % of children living in slums; (v) % of children living in streets; (vi) % of girls; (vii) % of boys; (viii)% of young children; (ix) % of adolescent children; (x) % of housing units (rental occupied); (xi) mean housing value (for owner occupied units); and (xii) mean contract rent (for rental units) etc.

ix. Accessibility in terms of physical proximity does not imply that children living close to the outdoor play and recreation facilities are using them: The accessibility level of parks and playgrounds is shown to be high, more than 77% (by using buffer areas analysis) and 66% (by using service area analysis). But it is also revealed that physical accessibility is not the only determining factor for using the outdoor play and recreational facilities. There are other predominant factors which strongly influence the use of outdoor play and recreation facilities such as gender, socio-economic condition and most importantly children's safety, security, condition of the facilities etc. Therefore it follows that without improving the physical, environmental conditions of outdoor play and recreation facilities and most importantly the due consideration of providing facilities for

girls, younger children and creating a supportive environment for the poor children, the physical closeness of the facilities does not imply that the children within the buffer/service area can use these facilities.

x. Security should be ensured for using playgrounds and parks in Dhaka city: It also came out from parents' survey that the main reason for not letting children use the nearest playgrounds or parks is the lack of security. Parents do not allow their children to use the nearest playground/park due to security, fear of road accident and fear of kidnapping. It is found, from the consultation with the children and parents, that lack of security and problems with the anti-social activities in the parks and playgrounds mean that children are unable to visit these facilities. It is also found that children are not allowed to go to the parks even though the park is adjacent to their home. Therefore it is important to prevent anti-social behaviour at the same time as ensuring security by providing community workers or safety guards for the protection from the anti-social activities. Other measures like building of boundary wall, fences, provision of life guards etc. can also be applied.

xi. Capacity building of play and recreation professionals and associated staff: Children would benefit from an increase in knowledge of play by planners, architects designers and other professionals who work for and with the children. There is a need to organize motivated play workers at the community level to support children's play on a voluntary basis. Architects, landscape designers, planners, teachers, coaches and recreation specialists should increase their knowledge of children's priorities for play. Play providers also need to train their staff to conduct regular risk assessment in order to ensure quality play provisions. There is also a need to provide special training on safety and child development, including child rights to play, to the different staff and workers associated with sports clubs, playgrounds, parks and amusement parks of Dhaka city in order to make these places more child-friendly.

xii. A single agency for coordination, development, maintenance and protection of all playgrounds, parks and amusement parks in Dhaka city: At present, the responsibilities for development and maintenance of playgrounds, parks etc. are very fragmented and un-clear, and as a result, misuse and encroachment of playgrounds and parks are becoming a common practice. A single agency should be responsible for the development, maintenance and protection of all playgrounds, parks and amusement

parks of Dhaka city. In order to protect the existing playgrounds and parks, the agency should make an inventory of all the playgrounds, parks and public open spaces (Ahmed and Sohail, 2008). The agency should have short term and long term goals and objectives and ensure that these objectives are implemented by the relevant agencies.

xiii. Local level initiatives to improve the children's play and recreation provisions: Play Associations at the Ward level are recommended for Dhaka city. Play Associations should work in partnership with local authority/ Ward Commissioners to identify gaps in local play services according to the age, gender and socio-economic groups and to develop a plan to provide these services. Informal play spaces should be well protected and fenced for younger children to play close to their homes (Ahmed and Sohail, 2008). Local government (Ward Commissioner) together with a community's active participation can play a great role in the development of the children's play spaces according to the age and sex.

xiv. National and local level resource allocation for children's play and recreation: Resource specific budget should be allocated for the children's play and recreation and children should be involved in the development of play initiatives. Social inclusion, equity and accessibility should be given due importance for the planning of play provisions. The budget allocation should be based on the number of children living in a particular area including younger children, adolescent girls and boys of high income, middle income, slum children and children living in streets.

xv. Awareness generation among parents about the importance of outdoor play and recreation: Most of the parents recognized the importance of regular outdoor play for their children, except the parents of slum children. Only 14% of the parents from slums children mentioned that regular play is very important for their children. Parents should give extra effort and time to take the younger boys and girls to the playgrounds and parks. Parents need to be involved in the formation of the recreation and sports clubs. More than 40% of the parents did not feel that they have to do something about the improvement of play and recreation facilities for their children. Whereas some of the parents wanted to take a more active role to improve the play and recreation facilities for their children such as providing financial support, launching of an awareness campaign, writing a letter to the Mayor of Dhaka city etc. However, parents' opinions about the role

of local government and local leaders are quite strong, as about 65% of them thought that such leaders should arrange playgrounds and parks for their children.

Children can sensitize decision makers, urban officials and community leaders to their needs and priorities for outdoor play and recreation facilities through workshops, demonstrations, action research and public events. Such awareness-raising can bring children and parents together with city officials and community leaders to discuss issues and draft action plans. UNICEF can play a supportive role in this respect. The following are issues to be considered for the awareness generation programme:

- Importance of children's play for child development;
- Importance on children's play with friends;
- Importance of girls' play for child development;
- Allocate more leisure time for the girls;
- Importance of living in a natural setting like a village with tree, pond etc.;
- Support government, civil society to increase access of children to public playgrounds, park, amusement park etc;
- Support to establish more drop-in /recreation centres for the street children;
- Offer subsidy for poor children for watching movies, visiting amusement parks, museums etc.
- Development of city level play and recreation policy for the children; and
- National level budgetary allocation for children's play and recreation.

xvi. Advocacy support: High level advocacy support and political will are the key for the prevention of encroachment of playgrounds and parks. In this respect, parliamentarians, civil society and other environmental and child rights activist groups should be activity involved to make children's play agenda as an important social issue. In this respect more research should be conducted and results disseminated through mass media, seminars, workshops etc.

Table 8.6 shows the factors and issues to be considered for the planning of children's outdoor play and recreation provisions for Dhaka city.

Table 8.6: Issues linked with children's outdoor play and recreation provisions

	Issues Linked with Children's Outdoor Play and Recreation
I.	Outdoor play and recreation is vital for child development and has impact on child's psychological, educational, social, aesthetical and physiological development
II.	Children's active involvement in planning of children's outdoor play and recreation provisions is important
iii.	Convention on the Rights of the Child (CRC) should be the guiding principles for children's participation in the play and recreation provisions
iv.	Outdoor play and recreation provisions should be considered for all children irrespective of age, gender and socio-economic condition of children
v.	Maximum utilization of open spaces to maximize the children's play opportunities of all groups
vi.	Application of appropriate play service standards
vii.	Encroachment and misuse of playgrounds and parks should be stopped
viii.	Equity issue should be considered in the distribution of outdoor play and recreation facilities in Dhaka city
ix.	Accessibility in terms of physical proximity does not imply that children living close to the outdoor play and recreation facilities are using them
x.	Security should be ensured for using playgrounds and parks in Dhaka city
xi.	Capacity building of play and recreation professionals and associated staff
xii.	A single agency for coordination, development, maintenance and protection of all playgrounds, parks and amusement parks in Dhaka city
xiii.	Local level initiative to improve the play and recreation provisions
xiv.	National level resource allocation for children's play and recreation
xv.	Awareness generation among parent's about the importance of outdoor play and recreation
xvi.	Advocacy support

8.3 Conclusions

The chapter synthesizes the key findings from children's perception study, user's views, observation of outdoor play and recreation facilities, assessment of accessibility and equity, parents and professional's views into factors and policy issues related to children's age, socio economic backgrounds, gender and other common factors. The next chapter will provide planning guidelines for each of the sixteen target groups and the next chapter will also describes the institutional arrangements for planning and execution of children's play and recreation provisions in Dhaka city.

CHAPTER 9: PLANNING GUIDELINES AND INSTITUTIONAL ARRANGEMENTS

9.0 Introduction

This chapter presents planning guidelines from each of the sixteen target groups of children living in Dhaka city from the factors and issues identified in the previous chapters. This matrix will be helpful for the planning of the play and recreation provisions in Dhaka city and can serve as the checklist for play and recreation professionals in order to make the provisions more inclusive to all the major socio-economic groups, young and adolescent children and for both boys and girls. Finally, an institutional set-up is recommended for the planning and management of the outdoor play and recreation provisions for Dhaka city.

9.1 Planning Guidelines for Different Groups of Children

The following section presents the children's response in the form of their preferences and needs for each of the three questions asked to them for each of the sixteen target groups in a matrix form, which is the basis for further analysis of planning guidelines for the outdoor play and recreation provisions for Dhaka city. Annex 1.a provides the sub-group-wise children's views on the existing play and recreation pattern. Annex 1.b and Annex 1.c give the sub-group wise views on children's desire and dream or imagination about their play and recreation respectively. Annex: 2 gives the narrative description and the matrices of the children's existing patterns, desires and dreams of play and recreation respectively. The Annex 3 provides the planning and design aspects of play and recreation facilities for different groups of the children living in Dhaka city is derived from the matrices presented earlier with the three questions (Annexes 1.a, 1.b, 1.c and 2).

The following group-wise recommendations provided the basis for the planning guidelines for the children of different socio-economic groups, both for boys and girls and young and adolescents which is presented with further incorporation of planning aspects from children users' views (Chapter 5), assessment of accessibility (Chapter 6) and parents and professionals' views (Chapter 7). Table 9.1 shows the planning guidelines for the sixteen target groups of children living in Dhaka city.

Table 9.1: Planning guidelines for different groups of children living in Dhaka city

i. STREET CHILDREN	II. SLUM CHILDREN	iii. CHILDREN FROM LOWER MIDDLE AND MIDDLE INCOME	iv. CHILDREN FROM HIGH INCOME
Group-1 (5-12 year boys) ♦ Small vacant land or left over land in slums should be allocated with see-saw, slide, swings etc. ♦ Small play space should be allocated in front of their living/working place to play football, marbles, cricket etc. ♦ Access roads and other ways near their living places to be protected for children's play. ♦ Ensure access to school playgrounds and other open spaces for children's play. ♦ Establishment of recreation and drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, Carom board, ludo, bat, ball etc. • Arrange visits to amusement park, sea-beach and Zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Teach swimming. • Facilities for children to sleep or take rest. • Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.). • Organize visits to stadium to watch games. • Establish linkage with the local government and seek for support.	**Group-5** (5-12 year boys) ♦ Clean play space/ area to play football, cricket without any obstacles like rubbish or trees within their community. ♦ More park, zoo, fair, etc. at the community level. ♦ Protected roads to play with kite, balloons, marble and other different types of indigenous games together with their friends. ♦ Arrangement of play accessories like see-saw, swings, slide in the community park or play space. ♦ Ensure access to school playgrounds and other open spaces for children's play. ♦ Develop vacant land or other left over space for children's play. ♦ Establishment of recreation and drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, carom board, ludo, bat, ball etc. • Arrange visits to amusement park, sea-beach and Zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Teach swimming. • Facilities for children to sleep or take rest. • Formation (or linking up) of outdoor sports club and	**Group-9** (5-12 year boys) ♦ Small protected play space for playing cricket, football etc, close to their home. ♦ Ensure security for the children to play cricket and other outdoor games in the park or playground. ♦ Special netting arrangement for rooftop play. ♦ Access street can be protected (by speed breaker, barrier etc.) for children's play particularly during afternoon. ♦ Develop vacant land other open space for children's play. ♦ Establishment of community level children's park. ♦ Arrange play accessories like see-saw, swing, slide etc. ♦ Ensure access to school playground, open space in mosque for the children to play. ♦ Family should arrange to visit amusement park, zoo, sea-beach and other interesting places etc. ♦ Family should take them to funfair, book fair whenever possible. ♦ Parents should support to organize recreation club to provide support to: • Mobile library. • Organize art competition, cultural events etc.	**Group-13** (5-12 year boys) ♦ Protected play space close to their home. ♦ Some space/area should be designated for the children's play areas in the apartment building. ♦ Parents should take children to amusement park, parks and playgrounds. ♦ Parents should take them to shopping mall with children's play facilities. ♦ Parents should organize sports/recreation club for the children. ♦ Parents should take them to gymnasium, swimming pool etc. ♦ Safety arrangement should be organized to play cricket, basketball, badminton etc. in front of their house, on drive way or on rooftop with their friends. ♦ Parent should support in organizing recreation club to support: • Community based/mobile libraries • Swimming pool. • Gymnasium, video games shop etc. • Organize art competition, cultural events etc. ♦ Awareness generation campaign to motivate parents and local government

♦ Preservation or development of water front's natural recreation spot with trees, village etc. ♦ Awareness generation campaign regarding the importance of children's play to mobilize local government and other civil society.	organize regular sports events (football, cricket etc.). • Organize visit to stadium to watch games. • Establish linkage with the local government and seek for support. ♦ Awareness generation campaign regarding the importance of children's play to mobilize parents, local government and other civil societies.	• Arrange picnic. • Teach swimming. ♦ Awareness generation campaign on: • Importance of children's play for child development. • Importance on children's play with friends. • Importance of living in natural settings like village with tree, pond etc.	on : • Importance of children's play for child development. • Importance on children's play with friends. • Importance of living in a natural setting like village with tree, pond etc.
Group-2 (5-12 year girls) ♦ Establishment of recreation/drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, carom board, *ludo,* skipping rope, kitchen sets etc. • Arrange visits to amusement parks and zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek for support. ♦ Development of small parks with more play accessories like, slides, sewings, see-saws etc. at the community level ♦ Protected streets, alley to play "hide-n-seek", "skipping" with friends close to their living places. ♦ More fun fair within or close to their community. ♦ Natural spots with pond, trees, flowers, garden etc.	**Group-6** (5-12 year girls) ♦ Special safety arrangements should for the small girls in children's park and amusement park. ♦ Play area/lot should be allocated for the young girls in community for games like "hide-n-seek", running around etc. with their friends in front of their house, streets etc. ♦ Development of parks with outdoor play accessories like see-saws, swings, slides etc. at the community level. ♦ Establishment of recreation/drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, carom board, *ludo*, skipping rope, kitchen sets etc. • Arrange visit amusement park and Zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek for support.	**Group-10** (5-12 year girls) ♦ Awareness generation program for the parents to take their children to amusement park and children's park regularly. ♦ More community level parks with play accessories like see-saws, swings, slides etc. ♦ Arrange library or mobile library. ♦ Development of small protected areas/play lots can be arranged for this group to play "Hide-n-seek" dolls, kitchen utensils, board games etc. close to their house with their friends. ♦ Developing separate play areas designated for these girls for playing basketball, badminton, volleyball etc. ♦ Parents to organize visit to amusement park, zoo, *Cox's Bazar* etc. ♦ Establishment of recreation club/centre for the children to provide the following facilities: • Library. • Organize art competition,	**Group-14** (5-12 year girls) ♦ Awareness generation program for the parents to take their children to amusement park and children's park regularly. ♦ Play areas/space should be designated in the apartment buildings to play with friends. ♦ Provision for outdoor play facilities (badminton, basketball etc.)within community for the young girls. ♦ Special arrangements should be made for the young girls to visit flower gardens, river, village etc. ♦ Establishment of recreation club/centre for the children to provide the following facilities: • Library. • Organize art competition, cultural events etc. • Arrange picnic. • Swimming. • Establish linkage with the local government and seek for support.

♦ Food stall, ice-cream, Chinese food at parks and at the recreation/drop-in centre. ♦ Special awareness generation program for the parents on • Importance of girls play; and • To allocate more leisure time for their girls. • Needs for play with friends.	♦ Special awareness generation program for the parents on • Importance of play; and • To allocate more leisure time for their girls. • Needs for play with friends.	cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek for support. ♦ Special awareness generation program for the parents on • Importance of play for their children's development; and • To allocate more leisure time for their girls. • Needs for play with friends.	♦ Special awareness generation program for the parents on • Importance of play for their children's development; • Needs for play with friends.
Group-3 (13-18 year boys)	**Group-7** (13-18 year boys)	**Group-11** (13-18 year boys)	**Group-15** (13-18 year boys)
♦ Ensure access to big, clean playground to play football, cricket etc. ♦ Access roads and other alleys in their living places to be protected for children's play. ♦ Ensure access to parks and other public open spaces. ♦ Ensure access to school playgrounds and other open spaces for children's play. ♦ Establishment of recreation and drop-in centre for the children to provide the following facilities: • Indoor play accessories like TV, Carom board etc. • Arrange outdoor play accessories for outdoor games like ball, racket, net etc. • Arrange visit to amusement parks, zoo, museums etc. • Organize cultural events etc. • Organize picnic. • Facilities for children to sleep or take rest.	♦ Ensure access to big, clean playground to play football, cricket etc. ♦ Access roads and other alleys around their living places to be protected for children's play. ♦ Ensure access to parks and other public open spaces. ♦ Ensure access to school playgrounds and other open spaces for children's play. ♦ Ensure safety and access to water bodies, river bank etc. where they can swim and play. ♦ Develop access roads, alleys, vacant lands for the children to play with marble, kite, cricket, football etc. and move around with their friends. ♦ Establishment of recreation and drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, Carom	♦ Special arrangements should be made by parents and local authorities to arrange the security for the boys to play cricket, football etc. in the nearby playgrounds/parks. ♦ There should be more playgrounds at the community level. In this respect vacant land/parking lots can be developed as playgrounds. ♦ Access roads and other alleys in their living places to be protected for children's play. ♦ Ensure access to school/college playgrounds and other open spaces for children's play. ♦ Parents should allow and take them to amusement parks. ♦ Access roads and other alleys in their living places to be protected for children's play and bi-cycle riding. ♦ Establishment of more indoor play centre like 'Sports Zone".	♦ Special security arrangement should be made by the local authority and parents so that the adolescent boys can play in the nearby playground for playing cricket. ♦ Facilities for playing pool in the shopping mall or going to recreation clubs. ♦ Arrangement should be made for libraries, gymnasium, video library close to their house. ♦ Parents should take them or make arrangement to visit amusement parks and other interesting places. ♦ Children should be given more opportunity to outdoor play by providing security. ♦ Play provision at the apartment building should be kept. ♦ Parents and local government should support to organize recreation club for the children to provide the following

• Organize visit to sea- beach, tea garden, Shrine at Sylhet, and other historical places; • Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.); • Organize visit to stadium to watch games; and • Establish linkage with the local government and seek for support. ♦ Preservation or development of river side water front natural recreation spots with trees, village etc. ♦ Launch awareness generation campaign on: • Need of play and recreation for the street children; • Seeking support for government, civil society to support increased access to public playgrounds, parks, amusement parks etc.; and • Support to establish more drop-in /recreation centres for the street children. • Offer subsidy for poor children for watching movie, visiting amusement parks, museum etc.	board etc.; • Arrange outdoor play accessories for outdoor games like ball, racket, net etc. • Arrange visit to amusement parks, zoo, museums etc.; • Organize cultural events. • Organize picnic. • Organize visit to sea- beach, tea garden, Shrine at Sylhet, and other historical places; • Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.); • Organize visit to stadium to watch games; and • Establish linkage with the local government and seek for support. ♦ Preservation or development of river side natural recreation spot with trees, water body, village etc. ♦ Launch awareness generation campaign on: • Need of play and recreation for the poor children; • Seeking support for government, civil society to support increased access to public playgrounds, parks, amusement parks etc.; and • Support to establish more drop-in /recreation centres for the street children. • Offer subsidy for poor children for watching movie, visiting amusement parks, museums etc.	♦ Conservation of rivers/lake/pond and make some provision for swimming. ♦ Parents and local government should support organizing recreation clubs for the children to provide the following facilities: • Arrange outdoor play accessories for outdoor games like ball, racket, net etc. • Organize cultural events. • Organize picnic; • Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.); • Establish linkage with the local government and seek support for mobile library, gymnasium, libraries, video game shop, and indoor play facilities at the community level. ♦ Awareness generation campaign regarding: • Importance of children's play for child development. • Importance of children's play with friends. • Importance of living in a natural setting, village with trees, ponds etc. ♦ Conservation of riverside water fronts and make some provision for swimming.	facilities: • Arrange play accessories for outdoor games like ball, racket, net etc. • Organize cultural events etc. • Organize picnic; • Formation (or linking up) of outdoor sports club and organize regular sports events (football, cricket etc.); • Establish linkage with the local government and seek support for mobile library, gymnasium, libraries, video game shop, and indoor play facilities should be arranged at the community level. ♦ Awareness generation campaign regarding: • Importance of children's play for child development. • Importance of children's play with friends. • Importance of living in a natural setting, village with trees, ponds etc. ♦ Conservation of riverside and make some provision for swimming.

Group-4	Group-8	Group-12	Group-16
(13-18 year girls)	(13-18 year girls)	(13-18 year girls)	(13-18 year girls)
♦ Establishment of recreation/drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, carom board, ludo, skipping rope, drawing tools etc. • Arrange visit to amusement parks and Zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Special arrangement for the adolescent girls to visit shopping centre, and other interesting urban elements like bridge, old *Zamindar* (feudal lord) house etc. • Establish linkage with the local government and seek support for establishment of community level drop-in centre. • Natural spots with pond, trees, glowers, garden etc. • Special arrangement for ice-cream, Chinese food at parks and at the recreation/drop-in centre. ♦ Special awareness generation programme for the parents on • Importance of girls play; and • To allocate more leisure time for their girls.	♦ Special security should be arranged for adolescent girls so that the adolescent girls can go outside of their house and play with their friends ♦ Establishment of recreation/drop-in centre for the children to provide the following facilities: • Indoor play spaces with play accessories like TV, carom board, *ludo,* skipping rope, kitchen sets etc. • Arrange visit to amusement parks and Zoo. • Organize art competition, cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek for support for establishment of community level drop-in centres. ♦ Special awareness generation program for the parents on • Importance of play; and • To allocate more leisure time for their girls. • Needs for play with friends. • Allocation of more leisure time for girls.	♦ Parents should organize for them to park, amusement park etc. ♦ Separate playground with more privacy and security can be arranged for the adolescent girls at the community level. ♦ Establishment of recreation centre for the children to provide the following facilities: • Indoor play space with facilities like library, gymnasium and exercise and aerobics centre etc. can be arranged for this group. • Organize sports like volley ball, basket ball, football, cricket, badminton etc. • Organize art competition, cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek support for the establishment of community level recreation centre. ♦ Special awareness generation program for the parents and service providers on: • Importance of play. • Needs for play with friends. • Allocation of more leisure time for girls. • Outdoor play for girls.	♦ More outdoor play opportunities for these adolescent girls for active recreation rather than only watching TV. ♦ Establish separate playground for girls only. ♦ Parents should give special efforts to take them to parks and amusement parks. ♦ Parents should arrange visiting see-beach, mountain, hill station etc. ♦ Establishment of recreation centre for the children to provide the following facilities: • Facilities like library, gymnasium and exercise and aerobics centre etc. can be arranged for this group. • Organize sports like volley ball, basket ball, football, cricket, badminton etc. • Organize art competition, cultural events etc. • Arrange picnic. • Establish linkage with the local government and seek support for Development of basketball and badminton court, swimming pool, cultural centre, music school, cyber café, gymnasium in the apartment building, on rooftop or in the community with proper privacy and security measures.

			♦ **Special awareness generation program for the parents and service providers on:** • **Importance of play.** • **To allocate more leisure time for their girls.** • **Needs for play with friends.** • **Outdoor play for girls.**

9.2 Institutional Arrangement

This research has identified the necessity to view the issues related to children's outdoor play and recreation provisions from a multi-disciplinary perspective. To deal solely with the accessibility to child rights aspects would have only partially addressed the problem, as it is a multi faceted subject meshed together in an integrated way. Therefore, the research identified the major disciplines or streams of thought which contain the factors and issues resulting from the children's perception study, users' perspective , accessibility and equity assessment, parents' and professionals' views. It is revealed that the institutional framework has four major dimensions which are equally important in order to take a holistic approach to children's overall mental, physical and social development. The following are the four dimensions of the proposed institutional framework of children's outdoor play and recreation provision:

i. **Child development** including child rights and child participation. It should also focus on the children's needs, perception and desire for the play and recreation provision.
ii. **City planning** in conjunction with urban and detailed area planning, transport planning, neighbourhood planning. It should also include the housing, infrastructure and community up gradation.
iii. **Social development** should provide the broad framework for the play and recreation of the children. Without this social development framework, children's play and recreation cannot get due share in the country's overall social development. Children's accessibility, equity, social inclusion, safety etc. should be viewed in terms of the social development perspective.
iv. **Policy and institutional support** including advocacy, financing and management are the key areas influencing the children's play and recreation provision.

Each of the four dimensions of the planning framework is discussed in next section.

9.2.1 Child Development

All the concerned agencies working for children's development such as government agency, development partners, particularly UNICEF, and national and international NGOs should work together to include the children's policy in the national agenda for children's development. Children's play should have leverage to the entire concerned child development sector as children's play is a key aspect for children's overall physical and psychological development. It is already well established that through children's participation and involvement in the design of play and recreation provisions, a very cost effective and stimulating outdoor play and recreation facilities can be provided even in the resource-constrained city like Dhaka. It is also revealed that a child's desires and dreams about their play and recreation are not always unattainable and unrealistic even in the current high density condition of Dhaka city. Although their opinion may not be backed with formal rationale and principles, they can show us a new direction to make Dhaka city more child friendly without any major investment (Ahmed and Sohail, 2006).

As the play and recreation issues have an impact upon the overall child development, the Ministry of Women and Children Affairs should take the lead position to coordinate the child development issues to ensure social inclusion of all segments of children. The planning and development organization, RAJUK, should take the lead role for planning and setting standards for children's play and recreation provisions. Bangladesh Environmental Activists Group or BAPA , UNICEF, National and international NGOs and civil society should be involved in the formulation of the children's play and recreation provision under the overall leadership of the Ministry. The *Shishu* (Children's) Academy, in partnership with local government, parents and civil society should organize different events with children from all socio-economic conditions, girls and boys and for young children and adolescents regarding needs assessment for their play and recreation and organize events for children's recreation purposes.

9.2.2 City Planning

The outdoor play and recreation provision should be integrated in the Detail Area Plans (DAPs) of Dhaka city. All the open space, parks and play grounds should be recorded in the map of the respective Detail Area. Maps and assessment of the open areas should be undertaken in order to identify the existing open areas and needs for children's play space within the community. Also, to protect the designated open areas for children's

play, a ban on further construction on those areas should be imposed. No construction should be allowed in these designated play and recreation areas for children. In this regard, the proper transport planning and infrastructure development initiative should be taken into consideration for creating provisions of outdoor play and recreation facilities. The Capital Development Authority or RAJUK should take the planning role particularly for the protection from encroachment and should maintain Ward-wide list of all the playgrounds, parks and public open spaces. Development of playgrounds and parks should be integrated with the Detail Area Plans (DAPs) of Dhaka city. RAJUK should develop planning standards and guidelines for different outdoor play and recreation provisions for different socio-economic groups, both for boys and girls and for younger and adolescents and ensure inclusion of these provisions in neighbourhood level as well as in housing complexes, shopping malls etc.

It came out very clearly that maintenance is one of the major issues for the existing playgrounds and parks. There should be a guideline for Dhaka City Corporation (DCC) for the maintenance and development of outdoor play and recreation provisions.

9.2.3 Social Development

The overriding objectives of the play provision for Dhaka city will be to increase the accessibility and equity for children of different socio-economic groups and it should create equal opportunity for boys and girls. To ensure social justice, analysis on accessibility and equity by using a geographical information system should be considered for the design of parks and playgrounds of Dhaka city. It should be kept in mind that there are other socio-economic factors which are more dominant deciding factors for the accessibility of these facilities to the different socio-economic groups of children living in Dhaka city. Local government need to take the lead role of monitoring equity in the provision of outdoor play and recreation facilities for all children living in Dhaka city irrespective of socio-economic background and gender. Special consideration should be given to socially excluded children and for girls outdoor play provision based on their needs and preferences. A humanitarian approach to play and recreation service delivery should apply. The Convention on the Rights of the Child (CRC) should be the main spirit and guiding principles of the children's play and recreation service delivery.

It is revealed from the research that street children and children from high income group do not have the access to the outdoor play and recreation facilities in Dhaka city. It also came out from the research that the problem of social inclusion and lack of security are the two prevailing obstacles for the exclusion of these two socio-economic groups. It is also found that there is lack of opportunities for girls for outdoor play and recreation. This is also related to parent's attitude, lack of security and gender aspects. It is also found that girls, particularly from poor families, do not have adequate leisure time. Awareness generation is very important to change the mind-set of the policy makers, parents and service providers to provide more play and recreation opportunities to girls.

It is also found from this research that lack of security is one of the major obstacles for the under utilization of the play provisions in Dhaka city. Therefore the policy should focus on the crime prevention and in order to address these concerns the government should introduce measures.

The Ministry of Women and Children Affairs together with BAPA, different sports clubs, Shishu Academy, UNICEF, UNESCO and other international and national NGOs, civil society should work together to ensure the children's right to play and ensure inclusion of children from all socioeconomic backgrounds irrespective of gender and age.

9.2.4 Policy and Institutional Support

It came out from this research that Dhaka city does not have the proper environment to work for Child Rights to play and implement some play and recreation provisions for all socio-economic groups of children living in Dhaka city. Although some environmental activities group e.g. BAPA or the media have been trying to draw attention of the government to stop land encroachment and misuse, in most of the cases there have been no positive results shown due to lack of coordination, ownership and policy support. Also there is no concerted initiative observed in this respect due to the lack of public awareness about the adverse affect of non-availability of play and recreation provision in child development.

It is now of paramount importance to formulate policy and strategies and establish a link from the policy up to the implementation level. As the responsibility for the outdoor play and recreation facilities lies with different agencies, a separate agency solely responsible

for the development, maintenance and protection of children's existing outdoor play and recreation provision should be formed with committed professionals from child development, urban planning, architecture, social development, transportation and infrastructure planning backgrounds.

9.3 Conclusions

The planning guidelines derived from children's perception study, users' views, observation of outdoor play and recreation facilities, assessment of accessibility and equity, parents and professionals' views and then combined in to the sixteen sub-groups in a matrix. The research process revealed that there is a need to view children's outdoor play and recreation from a multi-sectoral perspective as it interlinked with child development, city planning and social development aspects. The institutional arrangement is developed in view to coordinate and give an integrated setup to combine all the required professional and institutional responsibilities into a single platform.

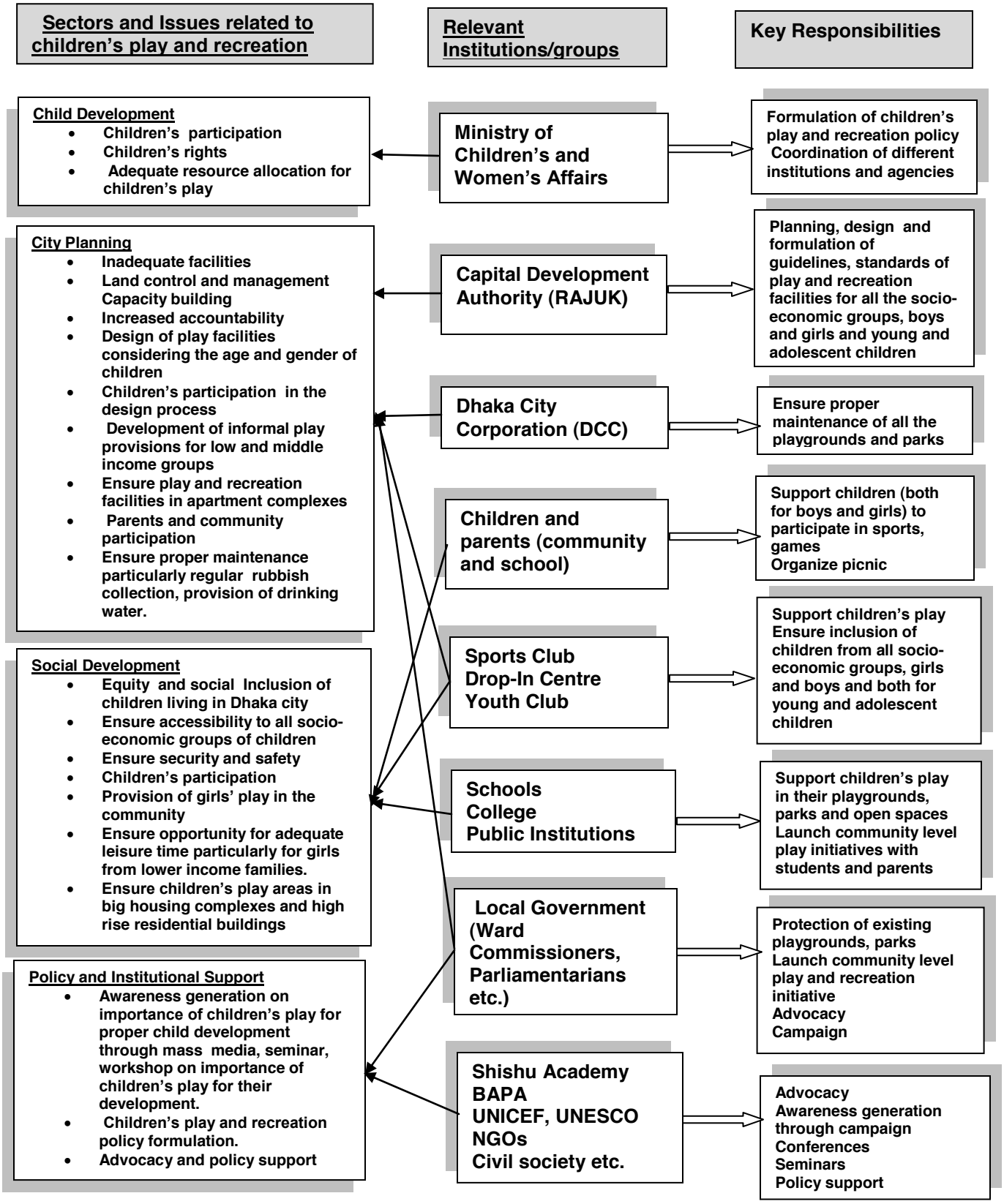

Fig 9.1: Proposed institutional arrangement for children's outdoor play and recreation planning

CHAPTER 10: CONCLUSIONS AND RECOMMENDATIONS

10.0 Introduction

The concluding chapter presents the overview of the research in terms of research aim and objectives and explanation on the extent of the achievement of the objectives. It also elaborately discusses the key research findings and recommendations. It goes on to give an explanation about the limitations and the areas to be considered for future research works. Finally, this chapter gives concluding remarks on the research subject.

10.1 Research Overview

10.1.1 Overview of Research Objectives

The research is aimed to explore and investigate children's perceptions, needs and priorities related to outdoor play and recreation provision in Dhaka city and then identify their implications in the context of Dhaka city.

The first objective of the research is to identify children's perceptions on the outdoor play and recreation provisions of Dhaka city. In order to explore this aspect, three questions are asked to the children of four socio-economic backgrounds, girls and boys and young children and adolescents. The questions are on the existing play and recreation activities, their desires to spend their leisure time and their dreams about play and recreation. These answers gave an in-depth understanding about the gaps between the present conditions, desires and dreams about the children's play and recreation. Chapter 4 gives a detail description of their views on this subject.

The second Objective is to assess the existing condition of the outdoor play and recreation provisions in terms of physical condition of the facilities, use pattern and accessibility for children of different socio-economic condition of Dhaka city. In order to assess the existing condition of the facilities children's views on the existing condition (Chapter 5), the distribution pattern of playgrounds and parks (Chapter 6) and also the

views of parents and professional's are taken into considerations (Chapter 7). Finally, an exercise is carried out by using the Arc Info computer software to assess the accessibility of the outdoor play and recreation provisions for children of Dhaka city (Chapter 6).

The third objective is to identify factors and issues regarding children's outdoor play and recreation provision planning. In this respect, a thorough literature review was conducted to understand the benefits of outdoor play and recreation in the context of child development, its prevailing constraints and the issue of child participation in relation to child rights. Then preferential and policy factors are identified from the literature review which gives an understanding about the planning of children's outdoor play and recreation provisions in other cities. The factors and issues are identified from the four studies conducted under the research. The four studies are children's perception study (Chapter 4), Users' views (Chapter 5), accessibility and equity assessment (Chapter 6) and parents and professionals' views (Chapter 7).

Finally, Objective 4 is to formulate planning guidelines and institutional arrangements for children of Dhaka city. A matrix on the planning guidelines (Section 9.1 of Chapter 9) is developed based on children's perceptions (Chapter 4), user's views (Chapter 5) and its implications on planning and design aspects children's play and recreation provision (Annex: 3), factors affecting children's outdoor play and recreation provisions (Section 8.1 of Chapter 8) and finally parents and professional's views on the planning and management of the children's play and recreation provisions (Chapter 7). The institutional arrangement for children's outdoor play and recreation provision for Dhaka city is developed based on the combined analysis of factors for children's outdoor play and recreation (Chapter 8), key policy issues (Section 8.2) and planning guidelines (Chapter 9). The key component of the institutional arrangement 9Section 9.2) derived from the analysis of the factors and issues associated with different institutions and disciplines associated with children play and recreation aspects.

10.1.2 Overview of Research Questions

Research Question 1: What are the perceptions of children about the play and recreation provisions of Dhaka city irrespective of socio-economic background,

gender, age and their implications and how are they reflected in the existing provisions provided by adults?

The Chapter 4 presented the data and analysis of how the children of different socio-economic groups, boys and girls, young and adolescents spend their leisure time, how they wanted to spend their leisure time and their imagination about the best way to spend their leisure time in a matrix form as well as the chapter gives a brief explanation in the narrative form. The Chapter also gives the analysis of children's perception and their implication on design and policy of the children's outdoor play and recreation provision for Dhaka city. The section 5.1 of the Chapter 5 gives the results of the survey of the existing outdoor play and recreation provisions of Dhaka city in relation to present condition. This research question tailored to achieve the Objective 1.

Research Question 2: What are the profiles, views and recommendations of children using the existing play and recreation facilities in Dhaka city?

Section 5.2 of Chapter 5 gives an understanding about the socio-economic condition, gender and age group of children using the existing playgrounds, parks and amusement parks of Dhaka city. This section also explains children's views, satisfaction level related to physical condition, environment and maintenance of these outdoor play and recreation facilities. This section also presented children's recommendation about the type and size of the playgrounds, parks and amusement parks. The parents views presented in Chapter 7 give some insights on the factors and issues related to the children's outdoor play and recreation provisions. This research question answers the factors and issues related to children's outdoor play and recreation provisions (Objective 2).

Research Questions 3: How accessible are the play facilities to the children of different socio-economic groups, boys and girls, young and adolescents of Dhaka city in general?

Chapter 6 presents the results of the assessment of accessibility of the existing playgrounds, parks in Dhaka city in general. The two methods for assessment of accessibility are applied in the research. The accessibility and equity to the children of Dhaka city is also defined in Chapter 5 by children's playgrounds, parks and amusement parks user's survey. It is also evident that the accessibility in terms of physical distance does not give the full scenario of the children using these facilities. The equity

assessment could not be conducted due to lack of data available. Chapter 6 also gives an explanation about the barriers for the children to attain accessibility of outdoor play and recreation facilities in Dhaka city. This research question focused on the identification of the factors and issues related to accessibility and equity to children of different socio-economic groups, gender and age group.

Research Question 4: What are the factors and key policy issues for children's outdoor play and recreation provisions in Dhaka city?

The key influential factors related to children's preferential and policy factors are extracted and analyzed from the literature review (Chapter 2). These factors and issues were further analyzed according to age, gender and socio-economic backgrounds of the children living in Dhaka city in Chapter 8 extracted from children's perception study (Chapter 4), children users' views (Chapter 5), parents and professionals views (Chapter 6) and accessibility assessment (Chapter 7).

Research question 5: What are the planning guidelines and institutional arrangements for the children of Dhaka city?

The formulation of planning guidelines for different groups of children irrespective of age, gender and socio-economic groups were mainly derived from the exploration of children's perceptions and their implications on the planning of play and recreation provisions from different groups of children (Chapter 4). The planning guidelines and institutional arrangements for children's outdoor play and recreation provision of Dhaka city is mainly derived from the Chapter 9 , which analyzed and synthesized the children's preferential factors for Chapter 2, Chapter 4 and Chapter 5), accessibility study (Chapter 6), parents and professionals' views (Chapter 7).

10.2 Key Research Findings

i. **Children's preferences and needs for outdoor play and recreation provision of Dhaka city are different according to socio-economic background, age and gender:** The preferences for the features of playgrounds vary according to the socio-economic background of the children. According to children living in the streets, clean and even ground, grass and freedom from animals and anti-social activities are the most

essential elements of good playgrounds. According to children living in slums, large size, restrictions on cattle grazing and grass are the most essential elements of a good playground. For children of the middle-income group, calm and quiet areas and restriction on anti-social activities are the most important factors. Even, calm and quiet areas and cleanliness are essential elements of good playgrounds for children of high-income group.

ii. **It came out from the research that the so-called play and recreation facilities provided by the concerned authority cater for only a fraction of the children in Dhaka city:** The girls are almost totally excluded from using these facilities whilst boys from the high-income group and children living in the streets seldom use these facilities. It is found from this research that only 3% of girls use playgrounds and 15% use parks in Dhaka. Also the facilities for girls' play e.g., basketball, volleyball, badminton etc. are non-existent in most of the playgrounds and parks in Dhaka city. It is also found that children living in the streets and slums are not allowed to use their neighbourhood school playgrounds which are within the community. Street children cannot enjoy the amusement parks due to the high entry fee for these facilities.

iii. **There is a decreasing trend in the provision of areas of outdoor play and recreation facilities in Dhaka city**: It is found from this research that the total area of parks, playgrounds etc. consists of about 4% of Dhaka's land. The ratio of open area per 1000 population is 0.24 acres which is far below the standard for a city with more than 10 million population. It came out from the analysis that playgrounds and parks in Dhaka city have been disappearing and there is a need to protect all the playgrounds and parks in Dhaka city. To protect the existing play and recreation areas, the list and the map should be publicly available at the Ward level so that the community can resist conversion of these play and recreation areas into other land uses.

iv. **Cricket, football and badminton are the three games observed being played by the children of Dhaka city:** Informal play is predominant in the middle-income and slum areas. Girls play volleyball and badminton. Younger children play inside or close to their houses. Informal play is common among slum and street children. Younger children from all socio-economic backgrounds want to play with friends

v. **Close proximity is the main reason for using playgrounds and parks in Dhaka city**: Many children irrespective of their age and socio-economic background wanted to have playgrounds and parks within their community, which can be adjacent.

vi. **The accessibility of outdoor play and recreational facilities is not the only determining factor for the children of Dhaka city to enjoy outdoor facilities**: There are other prevailing factors which obstruct the use of outdoor play and recreation facilities. Although it came out from the research that accessibility in terms of physical distance is quite high in Dhaka city, for example, the service areas for all the playgrounds and parks in Dhaka city is more than 66%, but in reality only 3% of girls, 4% of children living in the streets and 5% of children from the high income bracket are using these play and recreation facilities in Dhaka city.

vii. **Lack of security, poor maintenance and inadequate facilities and play accessories are the main reasons for not using playgrounds and parks by children in Dhaka city**: Girls and children from high-income groups are not allowed to enjoy the play and recreation facilities, even when playgrounds and parks are situated in close proximity to their home. Most of the playgrounds and parks are found to be noisy, unclean, unfenced and littered with garbage. Toilet facilities are found in only 3% of playgrounds in Dhaka city. It is found that facilities for basketball, volley ball, swings and slides are observed in less than 5% of cases.

viii. **It is revealed from the research that there is no consideration of equity for the distribution of playgrounds and parks in Dhaka city:** There are many areas of Dhaka city where there is not a single playground or park and in other areas there are adequate numbers of playgrounds and parks for only a small number of children.

ix. **Play is not perceived as one of the priority needs for the development of children in Dhaka city:** The importance of play is not always well recognized and valued, especially in the context of developing countries where poverty is the major concern. Only 14% of the parents of slum children mentioned that regular play is very important for their children. Parents should give extra effort and time to take the younger boys and girls to the playgrounds and parks. Parents need to be involved in the formation of the recreation and

sports clubs. More than 40% of the parents did not feel that they have to do something about the improvement of play and recreation facilities for their children. Parents, play providers and others who deal with children should be encouraged to support play as a basic right for children. Parents' attitudes to supporting the play and recreation needs of the children are important. At the same time the professionals' commitment and sincere effort are needed to had a positive environment for planning and design child-friendly play and recreation facilities in Dhaka city. Advocacy for protecting children's play rights should be taken as one of the key issues for child development. UNICEF can play a vital role in this regard.

x. **The research divulged that children's outdoor play and recreation issues are not contained in a single discipline**: Child development, city planning and social development are the three major dimensions on which children's play and recreation planning is based. It also emphasized that each of these three dimensions deserves equal attention and application. The research also revealed that to address these three sectoral issues in an integrated way, an institutional framework comprising professionals and respective legislative support is the prerequisite for proper planning and management of outdoor play and recreation provisions of Dhaka city.

10.3 Recommendations

The recommendations made in this section are based on the research findings from children's perceptions study, users' survey, and assessment of accessibility and equity and parents and professionals views presented in different chapters.

It is revealed from the research that the needs, desires and imagination for spending leisure time are different according to different socio-economic groups, gender and age. This group-wise analysis and recommendations should be the basis for the planning of the outdoor play and recreation provision for Dhaka city.

It is important to increase the accountability of the responsible agencies for proper management of children's outdoor play and recreation provisions. In this respect, a

single agency comprising child development, city planning and social development professionals is recommended.

A shocking trend of decreasing areas of playgrounds and parks in Dhaka has been evident from this research. It is important to map and list all the playgrounds and parks in Dhaka city and an immediate embargo should be imposed against any other land use development in order to protect the existing playgrounds and parks of Dhaka city.

It is evident that child participation is a key aspect for planning and management of children's outdoor play and recreation provision. It is also evident that preferences and needs for the outdoor play and recreation are very basic and can be fulfilled with sincere efforts from the parents and service providers. For instance, street children's desire for visiting amusement parks and going for picnics can easily be arranged. It is also found that the adolescent boys wanted bigger sized playgrounds than the young children. It is also revealed that not only children's desires but also their dreams can also be fulfilled if the city planners and decision makers listen to the children and include their views in the planning process. A platform to ensure children's participation from all major socio-economic groups should be established at the Ward level in the form of a club, or group. These clubs should be involved in the planning, development and improvement of existing play and recreation provision at the community level. Children of different socio-economic groups together with local government and the parents, relevant professionals, community workers, NGO workers should be involved in organizing the club.

Local level initiatives should be encouraged to undertake community level play and recreation provision. In this respect parents together with children can take initiatives. Children from all the socio-economic groups, boys & girls and young children and adolescents should be involved in these initiatives.

It is important to institutionalize children's play in urban planning, child development and social development. A single agency comprising government, non-government organizations, environmental activists, UNICEF, play associations etc. to improve the children's play and recreation provisions. This agency should be responsible to coordinate the execution of different agency responsible for the development,

maintenance and provide guidance to different agency to formulate appropriate policy, guidelines and standards for the improvement of children's play and recreation provisions for Dhaka city.

Children's play and recreation aspects are a neglected subject, particularly in the third world countries. Very limited research has been undertaken by the city planners and decision makers to understand children's perceptions and their needs. It is important to include children when the subject is related to play and recreation as it is already well established that children have a different perspective from adults. Listening to the voices and views of children is one of the most neglected aspects of child developmental research. Therefore listening to children is of paramount importance for play and recreation planning. To recognize their participation in the design and planning process, it is important to listen to them and allow their views to be heard. The ethical consideration during interviewing the children by the researcher is also very important.

Lack of awareness and the negative attitudes to the value of play are the underlying causes for most of the barriers to a child's rights to play. Adult attitudes, particularly with respect to playgrounds and parks, constrain children's use of outdoor open spaces. A concerted effort on the part of the government, organizations and communities should be made to promote the fact that outdoor play and recreation is the basis for a healthy and sound future generation in Bangladesh. There is a need for a paradigm shift in the mindset of the play and recreation service providers as well as the attitude of the parents to support their children by creating more child and gender friendly, age-wise facilities in a partnership with the local government. Awareness generation among the service providers and parents is very important in creating a supportive environment for children's play and recreation needs in Dhaka city. In this respect, mass media communication campaigns and organization of seminars/workshops with children are important to raise awareness on children's play and recreation issues. Planners and decision makers should apply a child friendly lens to policy affecting children, particularly in the design and planning process of community gardens, playgrounds, parks and open spaces that offer children and youth opportunities for climbing, challenge and adventure. High level advocacy and policy support is the key to implement the research findings. Bangladesh Paribesh Andolon (Bangladesh Environment Movement or BAPA), UNICEF, local and International NGOs can play the facilitators role.

Finally, in order to prioritize children's play and recreation aspects, policy support is required. A policy for the children's outdoor play and recreation should be formulated. The policy should comprise all the community level action plans and should be developed on the basis of children's perspectives and needs. The play policy should be integrated within the child development agenda. All concerned government agencies, development partners, particularly UNICEF and national and international NGOs, should work together to include the children's policy in the national agenda for children's development. The children's play should have leverage to all concerned with the child development sector as children's play is a key aspect for children's overall physical and psychological development. Play is not just about providing safe playgrounds and parks for children. It is fundamental to protecting their rights to be free to discover and explore their physical and social world on their own terms. As Louise Chawla (2002a, p.14) noted "***Small change in the local environment may have a big impact on children's lives".*** A little effort to pay heed to children can contribute in a great way to the physical and mental development of our next generation (Ahmed and Sohail, 2005).

10.4 Contribution to Knowledge

The contribution of this thesis to the existing body of knowledge is mainly academic, procedural and methodological. This research contributes to the academic field by addressing significant research questions that have not been addressed before. As shown in the Chapter 2 (Section 2.4), none of these publications provided comprehensive, evidence-based and particularly multi-sectoral perspective for children's play and recreation planning. It not only investigated outdoor play and recreation aspects of children from children's perspective covering all the major socio-economic groups of Dhaka city but also scrutinized these aspects according to age group and gender. The research gives an in-depth analysis about children's needs and priorities. The researcher designed the research tools in a way so that children could give their views and express their dreams in their language.

Due to the fragmented nature of the agencies responsible for development and management of playgrounds and parks, there were no comprehensive maps for

playgrounds, parks and amusement parks in Dhaka city. In order to overcome this limitation, special effort was made by the researcher to identify, validate and digitize all the outdoor-door play and recreation facilities in Dhaka city, which is a great contribution to the professionals to carry out further research as well as to plan and implement programmes related to children's play and recreation in Dhaka city.

Regarding the procedural contribution, the research provides the first opportunity to study children's outdoor play and recreation of Dhaka city in a holistic manner. The factors and policy issues provide evidence-based factors and issues which were first acquired from the work of other various countries of the world and then tested all these factors in the Dhaka city context across socio-economic condition, age and gender. This also provides a framework, in a comprehensive manner a wide range of factors and issues that are important for the play and recreational professionals to better address the children's outdoor play and recreation. The planning guidelines will also helpful for the play and recreation planning professionals to make the plans more age, gender and socio-economic specific and these guidelines also work as the checklists in order to make the plan more inclusive and accessible to the children of Dhaka city. The guidelines also highlight the issues or problems needed to be addressed. The research constructs the institutional arrangement from multi disciplinary perspectives - from child development, urban planning to social justice for all the four major groups of children living in Dhaka city. The research gives a strong basis for the development of the play policy for Dhaka city as well as other cities of Bangladesh and/or other South Asian countries.

The methodological contribution has been made through the use of different research tools and techniques for data analysis, synthesis and triangulation. This research analyzes children's perspective and views using different quantitative and qualitative tools, mapping of open areas of Dhaka city by with GIS software as well as identifying accessibility in the allocation or distribution of these facilities. The research facilitates the attainment of convergence the findings from the both children's and adults views through synthesis and triangulation of data. The research methodology can be used as the basis for further research on children's outdoor play and recreation provision in other cities of Bangladesh as well as in other Asian cities. The research finding can also be used to gain political will and government support for children's outdoor play and recreation as

this research clearly spelled out the linkage between child development and play and recreation.

The researcher viewed children's outdoor play and recreation aspects from different angles, from urban and infrastructure planning, from social and child and adolescent development perspectives. In this respect, the researcher's professional background and involvement as an architect and urban planner, long working experiences with UNICEF in child and adolescent development and participatory approaches, provided the mastery to view children's outdoor play and recreation provisions from different angles: at the same time providing a comprehensive planning and institutional arrangements in a convergent way. The result of this research is very crucial for proper planning and management of the outdoor play and recreation provision for Dhaka city as well as other Asian cities where the prevailing socio-economic condition is similar to Dhaka city.

10.5 Limitation of the Research and Identification of Future Research

The research has mainly dealt with children's outdoor play and recreation needs and aspects in relation to the playgrounds, parks and amusement parks. But, there are many informal play areas which children themselves find as their play and recreation area such as access roads, streets, alleys, driveways and other space not included in the study. Future research can be conducted to see these special qualities and children's likings or association with these informal spaces.

The interviews with children of high income families could not be covered as insufficient numbers of them were not available in the playgrounds and parks during the questionnaire survey. Therefore their views on the existing playgrounds and parks cannot be considered in the research. Also girls' views on the existing playgrounds and parks are not reflected in the questionnaire survey as very few girls were present during the survey.

Also this research did not consider the play and recreation aspect at schools. This research was only focused on the community and neighbourhood level outdoor play and recreation aspects of the children.

In this study, four socio-economic categories of children are considered; children living in streets, slums, unplanned areas and planned residential areas of Dhaka city. However, children working as domestic helps and children from physically and mentally challenged groups are not included in the study. It was identified by a study that about 300,000 children, mostly girls, are engaged as domestic help in Dhaka City (Plan International, 2005). Being major stakeholders, further research should be conducted for these household helpers.

There is also a need to conduct more research to identify the preferences of different types and content of play of younger children of different socio-economic groups through observation. Also future study is recommended to identify the special quality of the play environment for adolescent boys and girls for their preferred play environment.

Research is also recommended with the primary and secondary school children to identify their play related needs and the possible solutions for this. Therefore there is scope for future study on these two categories of children.

The research tried to analyze the equity of the outdoor play and recreation facilities by using the density of the population. The systematic equity analysis can be done by using the assessment data for accessibility. The results of accessibility level of the research are found to be different from the ground reality, further equity analysis using the data from accessibility analysis seems not to be useful in the context of Dhaka city. Therefore, further equity analysis using accessibility analysis is not pursued in the research.

Equity analysis can be carried out using the Mann-Whitney U test procedures in SPSS. The Mann-Whitney U test compares the median value for each variable outside of each access buffer to the median value inside of it, and indicates to what extent the two medians are different. For Dhaka city the following variables can be used in the equity analysis, which are: (i) population density; (ii) % of high income children; (iii). % of

middle income children; (iv). % of children living in slums; (v) % of children living in streets; (vi) % of girls; (vii) % of boys; (viii)% of young children; (ix) % of adolescent children; (x) % of housing units (rental occupied); (xi) mean housing value (for owner occupied units); and (xii) mean contract rent (for rental units) etc.

It is also recommended that future studies are on the physical and psychological barriers for using the play and recreation facilities and different security/safety measures including street lights, boundary and other measures of the outdoor play and recreation facilities.

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Annexes

The following matrices are derived from the children's perception study. Annex 1a, 1b and 1c give the children's views on the existing leisure patterns, desires and dreams about play and recreation respectively.

Annex 1.a: Existing leisure activities of the sixteen target groups

A. Street Children			
Group 1: **(5-12 year boys)**	**Group 2:** **(5-12 year girls)**	**Group 3:** **(13-18 year boys)**	**Group 4:** **(13-18 year girls)**
• Watching TV is the predominant mean of recreation for the group. • Children prefer to sleep at the drop-in centre whenever they get free time. • Indoor games like carom, *ludo* (board games), hide and seek etc. with their friends at drop-in centre. • Outdoor games like football, marbles and cricket at the park or any open space near their work place, home or drop-in centre. • Hang around. • Pray at mosque.	• Watch the television, play board games like *ludu* and carom and play with friends in the drop-in centre. • Plying with *"Hari-Patil"* with their friends. • Playing board games like *ludo*, carom. • Drawing pictures at the drop-in centre.	• Watching television is the major in-door recreation for this group particularly at the drop-in centres. • They like to sleep in the drop-in centre if they have nothing to do. • Outdoor play like playing cricket, football, marbles in the park. • Going out with friends during their leisure time. • Indoor games like *ludo,* carom, a game called "*Rumal –chor*" etc. • Chatting with the friends at the drop-in centre. • Some of them spend their time sitting at the river bank. • Go to a nearby zoo to earn some money by working.	• Watching the television is the most predominant recreation for this group. Among The TV programmes movies are their most favourite. • They also like to play indoor games and board games. • Help their supervisors at the centre by dusting and organizing the centre. • Cooking, sew bags clothes etc.
B. Slum Children			
Group 5: **(5-12 year boys)**	**Group 6:** **(5-12 year girls)**	**Group 7:** **(13-18 year boys)**	**Group 8:** **(13-18 year girls)**
• Outdoor games like cricket and football during the day. • Local games like, marble, *danguli, "*carom*", "golla-chut", "chotachuti".* • Watch television for 1-3 hours during the day at neighbour's house. • Guard cattle during day time. • Play at open space and park. • Swimming/playing in a lake adjacent to the slum without knowing proper swimming.	• Almost all of them play local games like , *"bouchi", "mangsha –chor", "carom", "Kuth-kuth", "golla-chut", "phul-tokka",* skipping, "c*hotachuti*" in the roads • Watch television at neighbour's or relative's houses. • Hanging around, going to relative's house, playing with friends. • Household chores, take care of their siblings; they have little time for themselves. • No leisure time for the group.	• Most of them play cricket, football and other games in the open spaces usually close to their houses, or they play in the streets. • Watching television (TV) is not their main recreation; some of them don't even watch TV as they are working children and they don't have their own TV in their house. • The working children of this	• As almost all of them work to earn a living, they don't have any leisure time. • Reading books, and doing other activities like embroidery, looking after their siblings etc. • Nothing to do and sitting idle at home as they are not allowed to go outside. • Watch television at friend's or relatives house during night.

	• Reading storybooks and drawing. • Swimming/playing in a lake adjacent to the slum without knowing proper swimming.	group prefer to take rest or sleep when they have some free time. • Reading story books, visiting friend's house, watching movie in the cinema hall or hanging around with friends. • In one slum situated along the train line in Dhaka city, adolescent boys are found **playing dangerously on a real moving train.**	• Visit friend's house and chatting with them. • Walk alone on the roads.
C. Middle income children			
Group 9: (5-12 year boys)	**Group 10: (5-12 year girls)**	**Group 11: (13-18 year boys)**	**Group 12: (13-18 year girls)**
• Most of them watch television whenever they have time. They watch programs like cartoons and serials *("Alef Laila*"), drama, wrestling etc. • Playing cricket is the most preferable mode of play for this group. They play cricket and other games with their friends in the nearby play ground at afternoon. One of them mentioned that he used to play cricket at home or at the roof top as he is not is allowed go outside the building for security reasons. • Reading story books and drawing pictures. • Playing indoor games like *ludo*. • Playing with smaller siblings, playing with toys, hanging around in the roof top.	• Television is the main mode of recreation for this group. Most of the children watch TV for about 2 -3 hours daily. Dramas, cartoons, music videos, serials and magazine programs are the most favourite programmes. • Reading comics, playing video games and playing with toys, board games with parents, reading story books and comics. • Drawing pictures, playing video games, board games etc. • Play with dolls alone and toy utensils *("hari-patil")* during their free time. • Play with their friends at the play ground or open space in front of their house. They play games like hide and seek etc. • Sewing and doing embroidery. • Play with their younger brother.	• Playing outdoor games like cricket, badminton in the streets with friends. • Watching television is not the most liked mode of recreation for this group. Hindi serials, dramas and movies are their favourite programmes. • Listen to songs in the cassette player, play computer games. • Many of them mentioned that as the playground is located far away from their place, they cannot go there. There is also a nearby college playground but they are not allowed to play there. They are not allowed to play cricket and other games on the streets. • Drawing pictures, riding bi-cycle, playing with friends on the street. • Hang around with friends and play games.	• Watching TV is the mode of recreation mentioned by almost all of them. They watch TV 2 to 3 hours a day. Dramas, music videos, news, Hindi serials, magazine programmes, wildlife channels are their favourite programmes. • Reading story books, news papers and magazines etc. • Sitting idle, sometimes gossiping with friends at home. • Sleeping is also mentioned by one girl in this group. • Practices singing for one hour, play dolls with younger sister, do recitation of poetry, play ludo with her younger brother.
High income children			
Group 13: (5-12 year boys)	**Group 14: (5-12 year girls)**	**Group 15: (13-18 year boys)**	**Group 16: (13-18 year girls)**

• Watching TV is the major mode of recreation for all of the children in this group. Watching cartoons, wrestling, sports, horror and action movies. • Playing computer games is also another pre-dominant recreation for children of this group. • Playing with toy cars, aeroplane, drawing pictures, reading story books and comics, "pokemon cards". • Going outside for shopping or visiting relatives, riding bicycle. • Taking trips outside with parents when there is vacation in school. • Playing outdoor games like, football, basketball, cricket and badminton in the field. • Play at the park with their friends. • Playing cricket at the driveway in front of their house. • Sleeping is one of the favorite pastimes during leisure.	• Watching TV for 1 to 2 hours daily is common for all children in this group. Cartoons, dramas, serials like *"Shakalaka –Boom-Boom", "Jessy",* movies, music and wrestling are their most liked ones. • Reading story books. • Chatting with friends over telephone, inviting friends in their house when they have free time. • Practicing singing, playing with dolls with younger sister, playing board games. • Playing with household help like running or hide and seek, • Playing with toy utensils. • Reading story books.	• Watching TV every day is not mentioned by this group. Watch sports, wildlife channels, cartoons are their favourite TV programme. • Playing computer games in the afternoon, listening to music. • Making computer software in the Internet and plays video games in computer. • Playing pool, cricket and badminton in the playground. • Listening to music, playing video games in the computer. and watching	• Watching TV every day during leisure time. Most of them watch serials, magazine programmes, movies, cartoons and music videos in TV. They even watch TV 7/8 hours a day particularly on Fridays or during school holidays. • Reading story books, going to the market with their elder siblings or parents, talking to friends over the telephone. • Doing beauty-care and listening to music, walking on the roof of the house in the evening. • Hanging-around with friends.

Annex 1.b: Preferred leisure activities of the sixteen target groups

A. Street Children			
Group 1: **(5-12 year boys)**	**Group 2:** **(5-12 year girls)**	**Group 3:** **(13-18 year boys)**	**Group 4:** **(13-18 year girls)**
• Most of them wish to have a big play ground. • Going to children's and amusement park is their second most wanted thing. Children's park with swings, slides, slides, exercises, instruments and other outdoor games are also liked by them. • The zoo is also found to be one of the most liked places to visit by this group. • The annual fairs that are organized at their place are also very much liked by them. • Playing outdoor games with balls, like football and cricket in a playground is also wanted by this group. • The children also wish to watch action movies played by their favorite local stars since they can only listen to music in the drop-in centre. Watch cartoons like "*Meena*" "*Sindbad*" and "*Alef Laila*". • Want more carom boards at the centre. • Playing accessories like cricket bat, ball, badminton racket etc. at the drop-in centre. • They like to play video games and they also want toys. • Some of them also want natural recreational spots like ponds, trees, rivers and mustard fields in the village.	• Most of them want to go to a beautiful park where they can use the swing and slide and more trees in the park. • Playing hide and seek and skipping with friends. • Visiting local fairs is one of the most liked recreational activities. • Want to have a big pond where they can spend the whole day. • Having a play ground is also mentioned by some of this girls. • Some of them wish for a colour TV in their centre instead of having a black and white one. • They also want to have skipping ropes in the centre. • Wish to learn sewing and make things like bags, doll's cloths and cooking.	• Most of them want to have big, clean playgrounds to play football and cricket. • Playing video games at shops is also mentioned by many of them. • Going to fairs is also mentioned by many of them. • Many of them like to have a children's park, zoo in their area. • Many of them liked to have a big pond where they can swim, flower garden and bycycle to ride. • Visits at *Cox's Bazaar*, the *Mazaar* at Sylhet etc. • Some of them want to play some local games which they used to play in their village like "Tiger & Goat", "*Gulli*"(marbles). • Some of them like to have play accessories like cricket bat, ball etc. • Some of them want more tools for indoor games at the drop-in centre like *ludo* boards, VCD player, play board games like "how to become rich" etc.	• Many of them want to visit "Shishu Park" or known as amusement parks and the zoo. • They also like to go to fairs particularly to ride a ferris wheel and rides. • Many of them wish to have a VCD player at the centre to watch movies. • Some of them mentioned about their own library so that they can read more books at the drop-in centre.

• Play Marbles or *"danda-guli"* in the village. • Want to watch games and matches in a stadium.			
B. Slum Children			
Group 5: **(5-12 year boys)**	**Group 6:** **(5-12 year girls)**	**Group 7:** **(13-18 year boys)**	**Group 8:** **(13-18 year girls)**
• Most of them wish to have a proper play ground or playing space where they can play cricket and football safely and without any obstacle like trees. • Some of them also mentioned that they want to go to a park or amusement park to spend their leisure time. • Spend their leisure time playing in a beautiful flower garden and a properly paved ground where they can play more comfortably. • Some of the children mentioned to have playing accessories/instru ments. • Some of them like to observe cinema shootings that take place in their area. • Some of them like to play with kite and balloons. • Playing together with friends and chatting with friends are also found to be their favorite leisure time activities. • Video games, toy pistols and TVs are also mentioned by few of them.	• Going to a children's park is found as a preferred recreation for most of the children of the group. • Some of them wish to go to funfairs, having toys so that they can spend their free time playing with these. • Some of them wish to have their own TV. • Some children wanted to have free time for leisure. • Some of them also mentioned about a clean, bigger playing space or an even play ground for them to play. • They wish to have more play accessories like carom boards, *ludo* boards, balls, badminton rackets, cards, four-wheeled cycles etc. • Some of them wish to have a library, a Hill, flower plants and fruit trees. • They also want to have their friends and relatives living closer to them.	• Play grounds are the most wanted facilities for their recreation. One wished to have a play ground with seating arrangement. • They also like to have play accessories like Badminton rackets, footballs, cricket bats and balls etc. • Some of them want to go to children's park or a park during their leisure time. • One of them wishes to have more trees in their area, and the river which is not polluted. • One of them mentioned that he wants to have a cycle, fairs and a library.	• Most of them want to have their own TV so that they didn't have to go other people's place and bother them. • Many of them wish to have a playground and a children's park in their place so that in that way they can make good use for their leisure time instead of sitting idle. • Many of them mentioned that they wanted to have some leisure time as they didn't have any free time. • Some of them wish to have some space to play carom, badminton, swings, slides etc. • They wish to have more friends in their places to chat with friends during their leisure time.
C. Middle income children			
Group 9: **(5-12 year boys)**	**Group 10:** **(5-12 year girls)**	**Group 11:** **(13-18 year boys)**	**Group 12:** **(13-18 year girls)**
• Almost all of them wished that they had a proper, big playground in which they can play. • Children's park	• Most of them mentioned about theme park ("Fantasy Kingdom"), amusement park and the parks where they want to go to spend	• Almost all of them wanted a playground as many of them are not allowed to play in their nearby playground. • Some of them want to	• Visiting parks are also mentioned by most of the girls of this group. They also like to have a swing at the park. They also wanted

("Shishu park"), theme parks ("Fantasy Kingdom") are the two most favourite places this group wanted to go to. • They like to have play accessories like See-saw, swings and Slides etc. • One mentioned about a big library. • A few of them also mentioned about the big shopping centres like *"Meena Bazaar*" where they can go for shopping with their parents.	time. • Many of them also wished to have a playground. • Park with swings, slides and slippers in their living areas. They also wished to have some shops at the park with different play facilities. • Some of them mentioned to have their own TV. • Moving around with friends is also mentioned by this group.	go to an amusement park like "Fantasy kingdom". • Gymnasiums, libraries are also mentioned by some of them. • Indoor playing facilities like "Sports Zone", "Bill Board" and video gaming shops are also mentioned by some of them. • River which is pollution free where they can swim. • More playing accessories like badminton rackets also mentioned. • A home theatre.	to see more trees in the park. • Having a library is also mentioned by most of them. • A separate playground for the girls play only. • They wished to spend more time in school as they don't have anything to do at home.. • An Exercising and Aerobics centre, "Sports Zone" is also mentioned by a few of them. • A separate club only for the girls. • Own TV as they had to go to her neighbour's house for watching TV. • More trees in the area. • One of them mentioned that she wanted to have a space in their community so that they can move around.
High income children			
Group 13: **(5-12 year boys)**	**Group 14:** **(5-12 year girls)**	**Group 15:** **(13-18 year boys)**	**Group 16:** **(13-18 year girls)**
• Visiting parks and sometimes amusement park and theme park are the most favourite recreational activities they wanted. They wanted the amusement parks near to their living areas so that they can go there frequently. • Playing cricket is also liked by many of them. They wanted a cricket ground/field in their community or a roof top play space covered by net . • Some of them also wanted to have more friends to play with as they are living in apartments. • Libraries, video libraries, gymnasiums, swimming pools	• Some of them wanted to play in playgrounds. • Parks, amusement park, theme park and also park with flower gardens. • Many of them wished to have more friends in their apartments or close to their houses. • Playing games and chatting in the computer, playing badminton and reading comics are their wanted leisure activities by these girls. • Some of them wanted to go to shopping malls like *"meena bazaar", "Bashundhara city*" etc. • Some of them wanted a swimming pool in which they can swim. • One of them wanted to go out of her apartment, and move	• To have proper playgrounds, cricket clubs and cricket grounds are the most wanted recreation the group wanted to have. • Nearby libraries and gymnasiums are also wished by some of them. • Children's parks are also mentioned by some of them. • Home theaters. • Some of them also wanted nearby CD shops.	• Many of them mentioned about parks and playgrounds as their most wanted recreational facilities. One of them wanted to have a park in which only women can enter. • One wanted to have sports facilities and a basketball court in front of her house. • Facilities for swimming, gymnasiums, music schools, good libraries, cultural centres and cyber cafés are the facilities that are wanted by some of them in which they can go to during leisure time.

are also wanted by some of them. • Playgrounds are also wanted by some of them. • Playing video games in consoles like "Play station', playing card games like *"Pokemon cards".* • They also liked playing computer games, reading comic books, playing badminton, and chatting in the computer.	around freely, which she can't for security reasons. • One of them also wished to move around in a "Rickshaw".		

Annex 1.c: Dreams or imagination about the best ways of spending leisure time by the sixteen target groups

A. Street Children			
Group 1: **(5-12 year boys)**	**Group 2:** **(5-12 year girls)**	**Group 3:** **(13-18 year boys)**	**Group 4:** **(13-18 year girls)**
• Most of them mentioned about the Cox's Bazaar sea beach as their dreamed place to go to for recreation. • Many of them mentioned about going to the zoo as their dream. • Having their own TV is also found to be as one their most wanted things • Children's park ("Shishu Park") is also mentioned by some of them as their best place to go to for recreation. • Some of them wanted to go to restaurants in which they can have Chinese food for free. • Riding a Jeep, a car, a train or a bicycle is also mentioned by some of them. • Going to picnic. • Sylhet, *Rangamati, Sundarban, Madhupur, Pabna* are the places some of them dreamed to visit. • One of them mentioned his dream is to meet his mother at his village • Some dreamed about a big pond where they can swim, ride boats, and go down slides which will drop us into the water. **- How can you participate to improve the area according to your imagination/dream?** • To realize their dream children wanted to organize picnic together or save money so that they can go to the zoo. One also mentioned to save money so that he can	• Visiting the children's park and amusement park is mentioned by many of them. • One has a dream to travel by his own car. • One girl dreamed about enrolling in a school and have ice-cream. • One imagined to go abroad. • Going to "Victoria Park", the zoo, "*Nowab Bari",* the beach at Cox's Bazaar are their dream places to go. • One girl dreamed about riding a car.	• The *Mazaar* at Sylhet and Cox's Bazaar are the two most desired places for this group; it is mentioned by most of them. • Visiting the Zoo is also found to be their desired place to visit for their recreation. • Visiting the Children's park ("Shishu Park") is also mentioned by many of them. • Chittagong, *Sundarbans* and Sylhet are also mentioned by some of them. • "*Ramna* Park", *"Lalbagh"* fort, "Fantasy Kingdom" at *Ashulia*, "Wonder land", the museum, "*Shafipur Anser"* club, fairs and other parks are also mentioned by some of them. • Going to picnic is also mentioned by some of them as their dream for recreation. • Visiting a village is also mentioned by many of them as their dream. • Some have a dream to make a train journey one mentioned to have a car to travel • Visiting the Film Development Corporation (FDC) to see local film stars is also the dream of one of them. • Some also mentioned about visiting the British Club *("Bagha club*"). • One mentioned to move around the city as he is very new in the city.	• Visiting the zoo is the most desired place for them. • Visiting parks, particularly children's parks ("Shishu Park"), "Nowab Bari" park are also mentioned by some of them as their desired places. • One mentioned about visiting the newly built bridge *("Postagola Bridge").* • Visiting shopping centres are also mentioned by many of them, one said "I wish we could live in a building with nice shops, particularly gold shop." • One wished that her parents would drop her in school by a car. • One wished to have ice-cream whenever she wanted.

to back to his village.			
B. Slum Children			
Group 5: (5-12 year boys)	**Group 6: (5-12 year girls)**	**Group 7: (13-18 year boys)**	**Group 8: (13-18 year girls)**
• Amusement parks like "*Shishu* Park" and "*Shishu Mela",* the museum, zoos, fairs, the airport and big parks are most of their dreamed places to visit. • To have a playground is also a dream for many of them. • They would also like to have playing facilities like swings, slides and see-saws. • Having TVs and refrigerators are also some of their dreams. "I want to eat a lot of yummy food", one said. • Some of them also mentioned to spend their time with their families as their dream. • Some wished to have his own building so that he could spend all the day there. • One also mentioned about his dream to create a park in the slum. **d. How can you participate to improve the area according to your imagination/dream?** • They wanted to organize a club to keep playing tools in there, they would name the club "*Sultanganj* Club".	• Children's parks ("Shishu Park"), the museum, zoos, fairs and the airport are most of their dreamed places to visit. • Playing facilities like swings, see-saws and slides are also mentioned by many of them. One mentioned • Visiting "Fantasy kingdom" is also some of their dreams. • *"Ramna* park*", the Ashulia* river bank, "*Shangshad Bhaban"* (assembly building", "Savar Monument" and the "Intellectual Monument" at *Rayer Bazaar* are also mentioned by some of these children as their dreamed places. • Trees particularly different fruit trees are also their dreams. • One has a dream to construct a building with brick walls. • One wanted to have a bathroom to bathe as now she bathes in the river. • One mentioned to go to a village as her dream. • One wanted to have more friends	• Most of them wanted to go to amusement parks like *"Shishu* Park" and *"Shishu Mela".* • Some of them also wanted to visit zoos. • One dreamed to have a cycle so that he could go anywhere that he liked. • As many of them came to Dhaka recently and are working in shops and doing construction work, they have a dream to spend time with their family in their villages. • Visiting the Parliament Building is also mentioned by one of them. • Some of them would like to have a playground. • One mentioned about a healthy environment and a pollution free river, one also said that he wished that there is no butcher shop in their area. • Going to video gaming shops also mentioned by one.	• Going to children's parks like "Shishu Park" is mentioned by many of them. • Having a library is mentioned by some of them. • Getting new clothes and cosmetics like nail polish and lipstick are also mentioned by some of them. **d. How can you participate to improve the area according to your imagination/dream?** • "I want to help open a book store where cheap books will be available." • "I want to collect enough money to go to Africa to observe different animals and their natural habitats." • "I want to make the place more beautiful by planting trees." • "We can set up a library by ourselves."
C. Middle income children			
Group 9: (5-12 year boys)	**Group 10: (5-12 year girls)**	**Group 11: (13-18 year boys)**	**Group 12: (13-18 year girls)**
• Most of them wanted to spend time in an amusement park like "*Shishu* Park", "Fantasy Kingdom", "*Nandan* Park and "Wonder land" • Many of them wished they had better play areas or playground and parks so that it would be possible for	• Amusement parks like "Fantasy kingdom", "*Nandan* park", "Wonder land" are mentioned by most of them. • Cox's Bazaar is also found to be a very desirable place to visit for them. • Visiting zoos and the museum is also	• Most of them dreamt about having a play ground and a park in their area to spend their leisure time. • Some of them also have a dream to have a cleaner, odour less environment. • The children's parks like "*Shishu* Park" with swings and trees are	• "Fantasy Kingdom" is mentioned by most of them. • "Shishu Park" also a dream place for many of them. One also dreamed to have parks with adequate security

them to spend their time doing outdoor activities. • Some of them said that if the place is not unsafe and crime-ridden then it would be easier for them to go out and do other activities instead of sitting idle at home. • Cox's Bazaar, Zoo and the museum are also mentioned as their dream places. • Fun fairs, book fairs and going to other places like special programs for children are also mentioned by some of them.	mentioned by some of them as their dreamed places. • Parks with play accessories like swings and slides are also found to be their dream. • More trees, beautiful houses and flower plants around the houses are by some of them. • One mentioned that the number of houses should be reduced and more open space should be there so that they can spend our free time playing there. • Going to riversides is found to be a dream for many of them as mentioned "there should be a nice children's play area with a beautiful water body at the centre. We can go there and play whenever we like." • Big playground is also mentioned by some of them. • Going to funfairs and book fairs are also mentioned by a few of them.	also mentioned by some of them as their dream. • Big open spaces are also mentioned by a few of them.	measures. • They also wished to have playing instruments (cradles, slides etc. • They also mentioned about a place where they could move around and play together. • Cox's Bazaar, Sylhet, *Ashulia,* Saint Martin's Island are also mentioned by some of them. • Good environment and latrines so that people do not use the drains for latrine purposes. • Having a library, visiting river banks and Rickshaw rides are also mentioned as their dream. • One wanted to go to Africa to see different animals there. **How can you participate to improve the area according to your imagination/dream?** • They wanted to establish a library for their own, they can collect money and buy books so that they can spend their leisure time by reading books.
High income children			
Group 13: **(5-12 year boys)**	**Group 14:** **(5-12 year girls)**	**Group 15:** **(13-18 year boys)**	**Group 16:** **(13-18 year girls)**
• Children's parks like "Fantasy Kingdom", "Wonderland", "*Nandan* park", "Sports Zone" and "Fantasy World". • Libraries, swimming pools, games rooms, computer fairs, computer games, CD games, big flat TVs are also mentioned	• Visiting amusement parks like "Fantasy Kingdom", "Fantasy World", "Wonder land" and *"Nandan* Park" are their dream places. • Going to parks is also mentioned by some of them. • Some of them mentioned that going shopping is their most	• Amusement parks, playing instruments, playgrounds to play football and cricket and video games. • Some dreamed to have a chance to play. • One mentioned to have a discovery world like in Singapore.	• A large field, a big basketball and badminton court, a place for concerts, sports facilities like swimming, cultural centres, are their most desired places to go for recreation. • One mentioned

by some of them. • Play grounds and playing instruments. • One wished to go to Malaysia. • One expressed his dream, "I would like to go to a river side, the museum, and I would also like to go to the village. I wish that I could go to a shopping centre with my mother." • One wished to visit his friend's house. • One mentioned about going to "Pizza hut" and doing shopping as his dream. **How can you participate to improve the area according to your imagination/dream?** • One boy wanted to form a *"Pokemon"* fan club.	wanted recreation. One mentioned, "I like to go shopping. I also like Pizza Hut" • Some of them wanted to go for a picnic. • One of them wanted to visit her friend's house	• One dreamed of an island surrounded by water. • To visit friend's house is also mentioned by one.	that she has a dream of a one giant library, one bank within their area. • One wish to have a park with a provision of a small eating place. • A clean/dirt free area, colourful houses, and one large playground so that everyone can play there. • Some imagined to go to a quiet place like *Ashulia, "Kote bari*-Comilla", Sylhet, Cox's bazaar, *Sundarban* in Bangladesh and other famous places in the world. • Going to Fantasy kingdom is also mentioned by some of them. • One mentioned about visiting Darjeeling (India) as her dream. • Visiting adventurous, exciting places is also mentioned by a few of them as their dream places to go to for recreation. **a. How can you participate to improve the area according to your imagination/dream?** • They wanted to convert all the vacant places into parks, since they didn't have any other options other than watching TV.

Annex 2: Summary of Children's Views on Existing Patterns, Desires and imagination of Play and Recreation

Question 1: How do children spend their leisure time in Dhaka City?

A. Street Children

Most of the children of this group are interviewed at the drop-in centre, where the street children can take rest and watch TV and play with other children at the dropping centre. The most important findings of the group are:

- **Watching TV** is the predominant means of recreation for this group. Among all the four groups watching children's programmes, movies, dramas, magazine programmes are the most favourite. They watch television mostly during the day time at a fixed time set by the centre authority. *"Alef Laila*", a fantasy drama serial is found to be the most favourite TV programme among all the four groups of children (Group 1 and Group 2). They watch the television 3/4 hours a day.
- **Sleeping** is also one of their dominant habits particularly among the boys (group 1 and group 3) during leisure time at the drop-in centre. They like to sleep in the drop-in centre if they have no other works.
- Indoor games like ***carrom, ludo*** **(board game), hide-n-seek, drawing pictures etc.** are the most common leisure time activities for the young girl children whereas adolescent boys spend their leisure time by **playing ludo and carom with their friends** at the drop-in centre. Adolescent girls help the centre by dusting and **organizing the centre or cooking and sewing clothes or household chores.**
- Apart from playing indoor games the boys enjoy playing outdoor games. Many of them mentioned that they like **playing football, marbles etc. at the park or any open space near their work place, home or drop-in centre.**
- Some of them spend their leisure time sitting **at the river bank or zoo.**
- Adolescent girls living in streets **do not have any outdoor play and recreation activities.**
- **Hang around with friends** is the most preferred leisure time activity for the boys group.
- Few of the boys mentioned that they sometime go **to mosque for their prayer**.

B. Children Living in Slums

The following are the major findings about the leisure and recreation pattern:

- Outdoor games are the major recreational activities of the boys group. **Playing cricket, football** are the common games among the boys. Like street children, the girls living in slums do not have any outdoor play activities.
- Girls aged between 5-12 years like to play a **variety of games, like** ***kuth-kuth, golla chut, phul-tokka,*** **skipping etc.** usually in the streets or in front of their house. Hide and seek is the most favourite game for these little girls. Young boys play ***marbles***, ***dangguli*** or simply run-around with their friends in front of their house on any vacant space close to their houses.
- **Watching television** is common for all the three groups (group 5, group 6 and group 8), But for a

shorter time (1-2 hours a day). This is because most of them don't have their own television in their house, so they have to go to their neighbour's house to do so. For the adolescent boys, watching TV is not a common leisure activity, as they can't go to their neighbours' house for watching TV.

- The adolescent girls groups have very **limited leisure time** particularly for the working group. Whenever they have leisure time, most of the adolescent girls sit idle at home as they are not allowed to go outside due to concerns about their safety.
- Many girls also mentioned that they have to do **household chores** and **take care of their siblings** during their leisure time.
- Since many of the adolescent boys are working children, they prefer to **sleep at home** during their leisure time.
- In one of the slums situated along the train line in Dhaka city, adolescent boys are found **playing dangerously on a real moving train.** Young children are found **playing /swimming** in lake/river adjacent to slums without knowing how to swim.

C. Children from Middle Income Families

The most important findings of the group are:

- **Watching TV** is the predominant recreation for all the three groups except the adolescent boys. Most of the adolescent boys play outdoor games like cricket, badminton etc.
- **Reading story books and drawing** are also means of recreation or leisure time activities for the girl groups whereas playing **computer games, riding bicycle, listening to music** are the most common leisure time activities for the boys.
- The adolescent girls spend their leisure time sitting idle or sometimes **gossiping or chatting with friends.** Playing with friends on the **street and hanging around with friends** are the common leisure time activities for adolescent boys.
- Playing indoor board games ***(ludo)*** is common for all groups except the adolescent boys.
- Many adolescent boys **cannot play cricket or football** as the playgrounds are far away from their places of living. Some of them mentioned that although there is a college play ground nearby, the college authority does not allow them to play there.
- Adolescent girls mention that they **sleep** when there is nothing to do.

D. Children of High Income Group

Altogether 50 children living in planned residential areas are interviewed aged between five to eighteen years. The most important findings of the group are:

- **Watching television** is the most predominant means of recreation mentioned by all the four groups particularly for adolescent girls, who used to watch television 7/8 hours a day and the adolescent boys watch television 1 to 2 hours a day.
- **Playing computer games** is also a common recreation for the boys.
- Reading **story books and comics** are the common recreational activities for the girls.
- **Listening to music and walking on the rooftop, chatting with friends over the telephone** are also some of the activities of the girls.
- **Playing with toy cars and dolls** are the indoor games played at home by the small boys and girls

respectively.

- Playing **outdoor games like cricket** is also mentioned by some of the boys living in Dhanmondi and Uttara planned residential areas of Dhaka city.

Question 2: How do children of Dhaka City want to spend their leisure time?

A. Street Children

The following are the main findings for these groups:

- **Big, clean playgrounds to play football, cricket and other sports** are the most wanted things for the boys (Group 1 and Group 3). Most of the girls are interested to go to **the park.**
- All the four groups are interested in going to **amusement park** for their recreation.
- Except the adolescent girls, the remaining three groups want to have a **big pool** where they can swim.
- Playing **hide-n-seek** is the most liked game for the small girls (Group 2).
- **Fairs** are also favourite places to visit for the girls.
- The boys also want to have more play tools like **bat, ball** etc.
- Visiting distant places in the country like **sea beaches at Cox's Bazar and the Shrine at Sylhet** are also mentioned as their favourite places by some of the adolescent boys.

B. Children Living in Slums

The summary of the findings are as follows:

- **Proper playgrounds** are the most wanted facilities for the boys' groups (Group 5 and Group 7). **Playgrounds free from any obstacles (trees)** where children can play freely and **playgrounds with seating arrangements** are the most preferred aspects wanted by the young and adolescent boys respectively.
- **Football and cricket** are the most desired games they wanted to play at the playgrounds.
- **Visiting parks** and **having their own television** are the most wanted things for the young and adolescent girls respectively.
- All the four groups wanted to go to **amusement park**s during their leisure time.
- The girls' groups (Group 6 and Group 8) mentioned that they don't have any leisure time for themselves; they wanted to have **more leisure time** for them.
- The young girls' group (Group 6) wanted to have a **clean play space** for them to play.
- All the three groups (Group 5, Group 6 and Group 8) wanted to have **more friends in their areas.**
- Many children wanted to have more **play accessories (carom, ludo, ball, badminton racket etc.)** at their drop-in centre.

C. Children of Middle Income Families

The summary of the findings are as follows:

- The three groups, young girls, boys and adolescent girls all wanted to go to a **park** for their recreation and during their leisure time.
- The most wanted thing for recreation is a **playground** for the adolescent boys group.
- All the amusement parks in and outside Dhaka (**Fantasy Kingdom, Wonder land, *Nandan Park***

and *Shishu park*) are the most favorite amusement parks all the groups wanted to visit.

- The boys' groups wanted to have **big playgrounds** close to their living areas. The girls' groups also wanted playgrounds but the adolescent girls wanted to have a **separate playground** where only they are allowed to enter.
- All the groups wanted to have a **library** for their recreation.
- Playing accessories like **see-saws, slides and swings** are also mentioned by some of the young girls and boys. Whereas the adolescent boys wanted to have **gymnasiums, video games shops** while the adolescent girls wanted to have **exercising and aerobics centres** for their recreation.
- **Moving around with friends** is also mentioned as leisure time activities by the groups.
- Adolescent boys wanted to have **more play accessories** to play with. They also wanted to have **sports centre/club** where they can play safely.
- Some adolescent girls mentioned that they wanted to **spend more time in schools** as they don't have anything to do at home during their leisure time. Some of them also wanted to have **more open spaces** within their living place so that they can move around with their friends.
- Some young children wanted to visit **shopping mall** where there is a provision for children's play.
- Some adolescent girls wanted to have **separate sports club for girls** only.

D. Children of High Income Group

The key findings are as follows:

- Visiting **parks and amusement parks** are the most wanted recreational activity for all the four groups. Some adolescent girls wanted to have **separate parks for girls only.**
- Most of the adolescent boys wanted to play cricket and for that they wanted to have a **playground** or **netted roof top** where they can play cricket. They also wanted to have a cricket club.
- The young boys' and girls' groups wanted to have **more friends in their apartments or close to their living areas.**
- **Gymnasiums, swimming pools, video libraries**, **music school, reading comic, cultural centre, cyber café, home theatre** etc. are mentioned by many children of these groups.
- Young group wanted to go to those **shopping malls with play facilities** where they can play.
- **Badminton and basket ball courts** in front of their house are also wanted by the girl's group.

Question 3: How do children imagine or dream about the "Best Ways" of spending their leisure time?

A. Street Children:

The key findings are:

- For the young boys' group (Group 1), the first two dream places to spend their leisure time are the beach in **Cox's Bazaar and the Zoo**. For young girls, it is visiting the children's park and the zoo. The best two places they imagined for their recreation are visiting the **Shrine of *Saint Shajalal* at Sylhet and Cox's Bazaar** for the adolescent boys' group and for adolescent girls, it is visiting the **Zoo and the children's park.**
- Visiting the **amusement park and the zoo** are the two places mentioned by all the four groups.

- Apart from Cox's Bazaar, the two girls' groups dream places are within or adjacent Dhaka City like "**Victoria Park", "*Nowab Bari Park*", "*Ramna park"*, the museum, "*Shafipur Ansar club*" and "Fantasy kingdom" at *Ashulia* etc.**
- Both the boy's groups mentioned many places outside Dhaka City like ***Chittagong, Sundarban, Sylhet, Rangamati, Madhupur, Pabna*** etc. as their dreamed places to go to.
- Going for picnic is also mentioned by the groups while **having ice-cream and Chinese food at the restaurant free of cost** and whenever they want are also mentioned as their dreams by the young groups.
- Having their **own television and travelling by their own car** are also this group's dream. An adolescent girl living on street wished that her **parents could drop her at school by car.**
- **Riding Jeep, car, train** also mentioned as their dreams by the boys group.
- One young boy mentioned to go abroad. One adolescent boy's dream is to visit **the Film Development Corporation (FDC) to watch film making, *Bagha Club* (British club) etc.**
- **Visiting a village** is also their dream. One of the young boys mentioned that **visiting his mother at the village** is his dream.
- Some dream about a **big pond where they can swim, ride boats** etc.

B. Children Living in Slums

The key findings are:

- **Visiting amusement parks and zoos** are the two most desired places to go to for all the groups. Other than these two places, visiting the **museum, fairs, the airport, the assembly building, "Savar Martyr monument", "Intellectuals Martyred Monument" and the *Ashulia* water front** etc. are also their dream places.
- The young groups (Group 5 and Group 6) wanted to have more playing **accessories like swings, see-saws and slides.**
- Having a **playground** is also in their imagination.
- Going back to **the village** is a dream for all the groups.
- They also dream about going for **picnicking**.
- Having **television i**s also a dream for the young slum children.
- One young boy mentioned that his dream is to create a **park** in the slum.
- Girls' group wanted to have **more trees** in their living places. One young girl mentioned "my dream is to create a **garden with fruit trees in the slum**"; one adolescent boy dreamt about **having a bicycle** of his own so that he can go anywhere he likes; one adolescent girl mentioned to have a l**ibrary** in the slum as her best imagination.

C. Children of Middle Income Families

The key findings are as follows:

- **Visiting amusement parks like "Fantasy Kingdom", "*Nandan* Park" and "Wonder Land"** are the dream places for the younger children's groups and adolescent girls, whereas having a playground is the dream for the adolescent boys' group.

- **Cox's Bazaar, Zoos and the museum** are also the dream places for the younger children's groups and adolescent girls' groups, whereas **having a cleaner and better space for playing** is mentioned by the boys' groups.
- Going to **fun fairs, book fairs and river banks** are also mentioned by many of the children of these groups.
- One young boy has a dream to have a **big playground, a big pond;** having a **place like a village** is the dream of a young girl; having an indoor play area is a dream of the adolescent boys and a **Rickshaw ride during good weather** is a dream for an adolescent girl.
- Having a **safe and crime free environment** outside their home and more **open areas and less buildings** are also mentioned by this group as their dreams.

D. Children of High Income Group

The key findings are as follows:

- Visiting **amusement parks like "Fantasy Kingdom", "Wonder Land", "Sports Zone" etc., "Fantasy World"** are their dream places for most of the young children both boys and girls.
- Playing **cricket, musical instruments and having a large playing field are dreams of the adolescent boys, whereas a basket ball court and a badminton court** are dreams for the adolescent girls.
- Some of adolescent girls mentioned to go to **quiet places** and historical and other places such as **Comilla (historic site), Sylhet (tea garden), Cox's Bazaar (Sea-beach), *Sunderban* (forest)** etc. as their dream places to visit.
- **Libraries, swimming pools, eating out at "pizza hut", visiting a friend's house** are the best ways imagined to spend their leisure time.
- Going to **riversides and picnicking are** also mentioned by many of these groups.
- Going for **shopping with mother is** also mentioned by some of the young children.
- Visiting **adventurous places** also mentioned as their dream.
- Some adolescent girls mentioned that they imagine **converting all the vacant lands** into a park in their community.
- Some of them have dreams to go to **India (Darjeeling), Malaysia, Singapore** etc. One young girl mentioned to do shopping with her parents as a dream.
- One adolescent boy mentioned about going to an **island surrounded by water.**

Annex 3: Planning and Design Aspects for Children's Play and Recreation Provision

i. STREET CHILDREN	ii. SLUM CHILDREN	iii. CHILDREN FROM LOWMIDDLE INCOME	iv. CHILDREN FROM HIGH INCOME
Group-1 (5-12 years boy) • Small play space/ area close to their home or workplaces to play football, marbles, cricket. • Amusement park, sea-beach and Zoo. • Safety measures for the children to play on streets or in front of their drop-in centre. • Funfair and picnic spot at the community level. • Play accessories like Carom board, *Ludo,* bat, ball etc. at the recreation centre. • Recreation centre for the children to sleep or take rest. • TV at the recreation centre for the children. • Preservation of river side natural recreation spot with trees, water body, village etc.	**Group-5 (5-12 years boy)** • Clean play space/ area to play football, cricket without any obstacles like rubbish or trees. • Recreation club. • Amusement park, zoo, fair, etc. • Protected roads to play with kites, balloons, marbles and other different types of indigenous games together with their friends. • Arrangement of play accessories like see-saw, swings, slides in the community park or play space. • Organization of recreation club or dropping centre for this group where they can watch TV or play indoor games like *ludo*, carom board etc. with friends.	**Group-9 (5-12 years boy)** • Small protected play space close to their home. • Security for the children to play cricket and other outdoor games. • Special netting arrangement for rooftop play. • Community level children's park. • Play accessories like see-saw, swing. Slides etc. • Library should be arranged for the group. • Family should arrange to visit see-beach, zoo etc. • Family should take them to funfair, book fair whenever possible.	**Group-13 (5-12 years boy)** • Protected play space close to their home. • Some space/area should be designated for the children's play areas in the apartment building. • Amusement park or children's play station/area in shopping mall. • Safety arrangement should be organized to play cricket in front of their house, on drive way or on rooftop with their friends. • Community based libraries, swimming pools, Gymnasium, video games etc.
Group-2 (5-12 years girls) • Recreation club to play indoor board games like *Ludo*, kitchen sets, carom etc. • Park with slides, sewing, see-saw etc. and amusement park. • Protected streets, alley to play "hide-n-seek", "skipping" with friends close to their house. • Provision for watching TV at the drop-in and recreation centres. • Funfair in their community. • Natural spot with pond, trees, glowers, garden etc. • Recreation club should arrange visiting Zoo and sea beach. • Play accessories like skipping rope, kitchen sets (*Hari-Patil*), etc. • Food stall, ice-cream, Chinese food at parks and at the recreation club.	**Group-6 (5-12 years girls)** • Safety arrangements should for the small girls in children's park and amusement park. • Space or play area should be allocated for the young girls in community for playing local games like "hide-n-seek", around etc. with their friends in front of their house, road etc. • Outdoor play accessories like see-saw, swing, slides etc. at the community level. • Dropping centre or recreation club with indoor play facilities and TV. • Special awareness to the parents of the girl children should be organized to allocate leisure time for their girls.	**Group-10 (5-12 years girls)** • Amusement park and children's park. • Play accessories like see-saw, swing, slides etc. • Library or mobile library. • Small protected areas/play space can be arranged for this group to play "Hide-n-seek" dolls, kitchen utensils, board games etc. close to their house. • Small communities play areas/space to play with their friends. • A separate play area can be also designated for these girls for playing basketball, badminton, volleyball etc.	**Group-14 (5-12 years boy)** • Amusement park and children's park regularly. • Play areas/space should be designated in the apartment buildings to play with friends. • Provision for outdoor play for the young girls. • Special arrangements should be made for the young girls to visit flower gardens, river, village etc. • More awareness about needs for play with friends should be generated.
Group-3 (13-18 year boys) • Recreation/drop-in centre with facilities for resting	**Group-7 (13-18 year boys)** • Access to proper play ground should be ensured	**Group-11 (13-18 year boys)** • Special arrangements should be made by	**Group-15 (13-18 year boys)** • Facilities for playing pool in the shopping

and sleep. • Access should be ensured to big, clean playground to play football, cricket and marble. • Recreation/drop-in centre should arrange play accessories like ball, cricket bat, etc. • Recreation/drop-in centre should organize visiting zoo, amusement park and funfair and places with village like natural settings close to Dhaka • There should be the provision of TV at the recreation/drop-in centres.	for these adolescent boys. • Play accessories like ball, racket, net etc. for their play should be arranged at the recreation/drop-in centres. • Visiting parks with friends are also their leisure time activities. • Watching Movie at the movie hall and hang-out with friends. • Proper resting and sleeping facilities should be provided at the recreation/ drop-in centres for these working children.	parents or local authorities to arrange the security for the boys to play in the nearby playground. • There should be more playgrounds at the community level for the children. • Parents should allow and take them to amusement park. • Gymnasium, libraries, video game shop, and indoor play facilities. • Conservation of riverside and make some provision for swimming.	mall or going to recreation clubs. • Special security arrangement should be made by the local authority and parents so that the adolescent boys can play in the nearby playground for playing cricket. • Arrangement should be made for libraries, gymnasium, VCD library close to their house. • Parents should take them or make arrangement to visit amusement parks and other interesting places. • Children should be given more opportunity to play.
Group-4 (13-18 year girls) • TV should be provided at the recreation /drop-in centres. • The recreation club/drop-in centres should arrange visit to zoo, amusement park, children's park and etc. • There should be more indoor play accessories like *Ludu,* rope and drawing tool at the recreation/drop-in centres. • Special arrangement for the adolescent girls to visit shopping centre, and other urban elements like bridge, old *Zamindar* (feudal lord) house etc.	**Group-8 (13-18 year girls)** • Recreation/drop-in centres should arrange visits to children's park or amusement park. • Awareness programme should be launched regarding the allocation of leisure time for girls. • Special security should be arranged for adolescent girls so that the adolescent girls can go outside of their house and play with their friends. • TV should be arranged at the recreation/drop-in centre.	**Group-12 (13-18 year girls)** • Outdoor play should be given for leisure time activities. • Parents should take them to park and amusement park. • More opportunities should be given to these adolescent girls to play. • Separate playground with more privacy and security can be arranged at the community level. • Facilities like library and exercise and aerobics centre etc. can be arranged for this group.	**Group-16 (13-18 year girls)** • More outdoor play opportunities for these adolescent girls for their recreation rather than only watching TV. • Basketball and badminton court, swimming pool, cultural centre, music school, cyber café, gymnasium in front of their house or close to their house should be arranged with proper privacy and security measures. • Separate playground for girls only. • Parents should take them to amusement park. • Visiting sea-beach, mountain, hill station etc.

Annex 4: Playground/Park/Amusement Park Observation Checklist

1. Name of the playground/park/amusement park

2. Address of the playground/park/amusement park

3. Size of the playground/park/amusement park

4. Type of facilities in this playground/park/amusement park
(toilet, branch, goal post, peach etc.)

5. Condition of the playground/park/amusement park

    a. Physical

    b. Maintenance

    c. Environmental condition

    d. Others

6. Responsible authority for maintenance of the playground/park/amusement park

7. Total number of people in the playground/park/amusement park

8. Total number of children (5 to 18 years) and percentage of children attended in the play ground/park/amusement park

9. What type of physical activities is common among children and their percentage (by age and sex group) ?

    a. Among (5-12 years) boys: %

    b. Among (13-18 years) boys: %

    c. Among (5-12 years) girls: %

    d. Among (13-18 years) girls: %

10. Children from which socio-economic group mostly uses this play ground/park/amusement park

    a. Street children

    b. Slum children

    c. Higher middle/middle/lower middle group

    d. High income group

11. Other observations
Time, date and signature of the observer

Annex 5.a: Questionnaire for Playground Users (Children)

Name of the Play ground:
1. Serial Number:

2. Date:

3. Name of the Interviewer: 4. Ward No.: 5. Zone/Thana:

A. General Information:

A.1 Name of the Child : A. 2 Address of house:

A.3 Age of the Child:
i. 5 to 12 :
ii. 13 to 18:

A. 4 Sex of the Child
iii.
iv. Boy

A. 5 Income Group:
i. Street Children:
ii. Slum Children:
iii. Higher middle/middle/Lower Middle:
iv. High Income:

B. Recreation information
How often, when and duration of time spend in this play ground?

i. Frequency		ii. Time		iii. Duration of Time	
1. Daily		1. Morning		1. Less than 30 min	
2. 1-3 times/week		2. Noon		2. 30 Min to 1 Hour	
3. Once in a week		3. Afternoon		3. 1-3 hour	
4. 1-3 times a month		4. Evening		4. More than 3 hour	
5. Occasionally		5. Not any defined time		5. Not applicable	
6. First time in my life		6. others		8. No answer	
9. Missing		9. Missing		9. Missing	

C. What is distance of your house from this playground?

1. Less than ½ mile
2. ½ to 1 mile
3. 1-2 mile
4. More than 2 mile
5. No answer

D. Mode of transport, travel time and travel cost to come from your house to this playground

i. Mode of transport	√	ii. Travel time	√	iii. Travel cost /child	√	iv. Entry fee	√
1. By walk		1. Less than 5 min.		1. No cost		1. No cost	
2. By Rickshaw		2. 5 to 15 min.		2. Tk.5 to 10		2. Tk.5 to 10	
3. By car		3. 15 to 30 min.		3. Tk.10 to 25		3. Tk.10 to 25	
4. Bicycle		4. 30 to		4. Tk.25 to		4. Tk.25 to 50	

		1 hour		50			
5. Motor cycle		5. 1 to 2 hour		5. Tk.50 100		5. Tk.50 100	
6. Tempoo/ Autorickshaw		6. 2-3 hour		6. Tk. 100 to 200		6. Tk. 100 to 200	
8. Others		7. More than 3 hours		7. More than Tk.200		7. More than Tk.200	

E. What type of play you used to play hare? (ans. max. 3)

Name of Play/games	√	Name of play /games	√
1. Cricket		8. Marble	
2. Football		9.	
3. Badminton		10.	
4. Volleyball		11.	
5. CHOR-CHOR		12.	
6. Kabadi		13.	
7. 7-stone (Sath-chara)		14.	

F. Information regarding other recreational/leisure facilities used by the child (ans. max. 4)

i. Type of leisure/recreation	√	i. Type of leisure/recreation	√	i. Type of leisure/recreation	√
1. Television		6. Amusement park		11. Chatting with friends over telephone	
2. Video		7. Eating out in a restaurant		12. Going outside country	
3. Video game		8. Book Reading		13. Others	
4. Movie		9. Health club		14. Others	
5. Shopping centre		10. Park		15.	

G. Why do you come to this playground?

1. Big playground
2. Closer to my house
3. Well maintained
4. No other playground near my house
5. Many friends play here
6. Instructor/attendance
7. Good transport facility
8. No entry for outsiders
9. Better security
10. Others

H. Are you satisfied with the following facilities and maintenance of this playground ?
Satisfactory: 1 Dissatisfactory: 2 No answer: 3

i. Facility	√	i. Facility	√	ii. Maintenance	√
1. Size		8. Restaurant		1. Cleaning	
2. Shape		9.. Toilet		2. Rubbish collection	
3. Grass		10. Lighting		3. Lawn repairing	
4. Branch		11. Children's play facilities		4. Walkway repairing	
5. Shed		12..Drinking water		5. Mowing	
6. Lake/pond		13. Others		6. Watering	
7. Walk way				7. Others	

I. Reasons for using/not using the nearest play ground within your community (answer maximum 3)

i. Reasons for using	√	ii. Reasons for not using	√
1. Secured		1. Insecure	

2. Clean		2. Grimy	
3. Well maintained		3. Difficult to access	
4. Easy accessible		4. Lack of maintenance	
5. Recreation		5. Fear mugging	
6. Others		6. Fear of kidnapping	
7. Not applicable		7. Parents not allow to go there	
8.		8. Fear of road accident	
9. Missing		9. Missing	
		10. Not applicable	

J. What are the problems in this playground?
J. a Physical Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Small size		7. Absence of shed for shelter	
2. Absence of paved pitch		8. Absence of toilet facilities	
3. Uneven ground		9. Missing/no answer	
4. Absence of grass		10. No problem	
5. Absence of any boundary		11. No lighting facilities during night	
6. Absence of bench		12.	

J. b. Environmental Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Noisy area		7. Others	
2. Industrial gases		8.	
3. Gases of buses/scooters/etc.		9.Missing/ no answer	
4. Crowded area		10. No problem	
5. Used for squatting			
6. Used for Loitering			

J c. Maintenance Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. No cleaning		7. No toilet cleaning	
2. No rubbish collection		8. Others	
3. No security		9. Missing	
4. No restriction for anti-social people		10. No problem	
5. No restriction for cycle movement			
6. No mowing			

j.d Other problems
K. Which of the following do you consider essential for a good playground?
Physical, environmental and service facilities (Ans. max. 4 each)

i. Physical Facility	√	ii. Environmental Facility	√	iii. Service facility	√
1. Large area		1. Calm & quite area		1. Good lighting	
2. Clean area		2. Free from industry & office adjacent the park		2. Toilet	
3. Even ground		3. Free from nursing home near the park		3. Shed for shelter	
4. Grass		4. Free from cow or other animals		4. Slipper (slide) for children	
5. Plants		5. Free from noise		5. Auto boat	
6. Walkway		6. Restriction for un-social people		6. Restaurant	
7. Fencing/boundary		7. Others		7. Library	
9. Missing		9. Missing		9. Missing	

L. What should be type, size and maximum distance of the playground in your opinion?

i. Type of park	√	ii. Size of park for your community	√	Distance of park from your house	√
1. Small playground within the community (to play badminton/cricket)		1. Size for badminton/cricket field		1. Less than ½ mile	
2. Big park outside the community (football field)		2. Size of a football ground		2. ½ to 1 mile	
3. Small or big within the community		3. Bigger than football ground		3. 1-2 mile	
4. Park and play ground within the community		4. 5-10 acres		4. More than 2 mile	
5. Park and playground should be separated but adjacent		5. 10 and above		5. More than 5 mile	
6. Park & playground should be combined		6. No answer		6. No answer	

Annex 5.b: Questionnaire for Park Users (Children)

Name of the Park:

1. Serial Number: ☐

2. Date: ☐

3. Name of the Interviewer: 4. Ward No.:

5. Zone/Thana:

A. General Information:

A.1 Name of the Child :

A.2 Address of the household

A.3 Age of the Child:

i. 5 to 12 : ☐

ii. 13 to 18: ☐

A.4 Sex of the Child

iii. Girl ☐

iv. Boy ☐

A.5 Income Group:

i. Street Children: ☐

ii. Slum Children: ☐

iii. Higher middle/middle/Lower Middle: ☐

iv. High Income: ☐

B. Recreation information
How often, when and duration of time spend in this park

i. Frequency	√	ii. Time	√	iii. Duration of Time	√
1. Daily		1. Morning		1. Less than 30 min	
2. 1-3 times/week		2. Noon		2. 30 Min to 1 Hour	
3. Once in a week		3. Afternoon		3. 1-3 hour	
4. 1-3 times a month		4. Evening		4. More than 3 hour	
5. Occasionally		5. Not any define time		5. Not applicable	
6. First time in my life		6. others		8. No answer	
9. Missing		9. Missing		9. Missing	

C. What is distance of your house from this park?

1. Less than ½ mile ☐

2. ½ to 1 mile ☐

3. 1-2 mile ☐

4. More than 2 mile ☐

5. No answer ☐

D. Mode of transport, travel time and travel cost to come from your house

i. Mode of transport	√	ii. Travel time	√	iii. Travel cost /child	√	iv. Entry fee	√
1. By walk		1. Less than 5 min.		1. No cost		1. No cost	

2. By Rickshaw		2. 5 to 15 Min.		2. Tk.5 to 10		2. Tk.5 to 10	
3. By car		3. 15 to 30 min.		3. Tk.10 to 25		3. Tk.10 to 25	
4. Bicycle		4. 30 to 1 hour		4. Tk.25 to 50		4. Tk.25 to 50	
5. Motor cycle		5. 1 to 2 hour		5. Tk.50 100		5. Tk.50 100	
6. Tempoo/ Auto-rickshaw		6. 2-3 hour		6. Tk. 100 to 200		6. Tk. 100 to 200	
8. Others		7. More than 3 hour		7. More than Tk.200		7. More than Tk.200	

E. What type of recreation do you enjoy most in this park? (ans. max. 3)

Name of facilities		Name of facilities	
1. See-Saw		8. Basket ball	
2. Slides		9.	
3. Swing		10.	
4. Walking		11.	
5. Jogging		12.	
6. Football		13.	
7. Cricket		14.	

F. Information regarding use of other recreational/leisure facilities used by the child (ans. max. 4)

i. Type of leisure/recreation		i. Type of leisure/recreation		i. Type of leisure/recreation	
1. Television		6. Amusement park		11. Chatting with friends over telephone	
2. Video		7. Eating out in a restaurant		12. Going outside country	
3. Video game		8. Book Reading		13. Health club	
4. Movie		9. Play (cricket, football, badminton etc)		14. Others	
5. Shopping centre		10. Park		15.	

G. Why do you come to this park?

1. Big park		6. Planned park	
2. Closer to my house		7. Good transport facility	
3. Well maintained		8. Establishing restaurant	
4. No other park near my house		9. Better security	
5. Natural beauty		10. Others	

H. Are you satisfied with the following facilities and maintenance of this park ?

Satisfactory: 1 Dissatisfactory: 2 No answer: 3

i. Facility	√	i. Facility	√	ii. Maintenance	√
1. Plant		8. Restaurant		1. Cleaning	
2. Flower		9. Toilet		2. Rubbish collection	
3. Grass		10. Lighting		3. Lawn repairing	
4. Branch		11. Children's play facility		4. Walkway repairing	
5. Shed		12.Drinking water		5. Mowing	
6. Lake/pond		13. Others		6. Watering	
7. Walk way				7. Others	

I. Reasons for using/not using the nearest park within your community

i. Reasons for using	√	ii. Reasons for not using	√
1. Secured		1. Insecure	
2. Clean		2. Grimy	
3. Well maintained		3. Difficult to access	
4. Easy accessible		4. Lack of maintenance	
5. Recreation		5. Fear mugging	
6. Others		6. Fear of kidnapping	
7. Not applicable		7. Parents not allow to go there	
		8. Fear of road accident	
		9. Others	
		10. Not applicable	

J. What are the problems in this park?

J. a Physical Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Small size		7. Absence of shed for shelter	
2. Absence of paved path		8. Others	
3. Absence of plants		9. Missing	
4. Absence of walkway		10. No problem	
5. Absence of lake/pond			
6. Absence of bench			

J. b. Environmental Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Noisy area		7. Others	
2. Industrial gases		8. Others	
3. Gases of buses/scooters/etc.		9. Missing	
4. Crowded area		10. No problem	
5. Used for squatting			
6. Used for Loitering			

J. c. Maintenance Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. No cleaning		7. No toilet cleaning	
2. No rubbish collection		8. Others	
3. No security		9. Missing	
4. No restriction for anti-social people		10 . No problem	
5. No restriction for cycle movement			
6. No mowing			

J.d Other problems

K. Which of the following do you consider essential for a good park?

i. Physical Facility	√	ii. Environmental Facility	√	iii. Service facility	√
1. Large area		1. Calm & quite area		1. Good lighting	
2. Clean area		2. Free from industry & office adjacent the park		2. Toilet	
3. Plant		3. Free from nursing home near the park		3. Shed for shelter	
4. Grass		4. Free from cow or other animals		4. Slipper (slide) for children	
5. Seasonal flower		5. Free from noise		5. Auto boat	
6. Walkway		6. Restriction for un-social people		6. Restaurant	
7. Lake/pond		7. Others		7. Library	
8. Others		8. Missing		8. Others	
9. Missing				9. Missing	

L. What should be type, size, maximum distance of the park in your opinion?

i. Type of park	√	ii. Size of park for your community	√	Distance of park from your house	√
1. Small park within the community		1. Less than or equal to 1/8 acre		1. Less than ½ mile	
2. Big park outside the community		2. 1/8 to 2 acres		2. ½ to 1 mile	
3. Small or big within the community		3. 2-5 acres		3. 1-2 mile	
4. Park and play ground within the community		4. 5-10 acres		4. More than 2 mile	
5. Park and playground should be separated but adjacent		5. 10 and above		5. More than 5 mile	
6. Park & playground should be combined		6. No answer		6. No answer	
7. Others		7. Very small			
8. Missing					

Annex 5.c: Questionnaire for Amusement Park Users (Children)

Name of the amusement park:

1. Serial Number: ☐

2. Date: ☐

3. Name of the Interviewer: 4. Ward No.:
5. Zone/Thana:

A. General Information:

A.1 Name of the Child : A.2 Address of the household:

A.3 Age of the Child:

i. 5 to 12 : ☐

ii. 13 to 18: ☐

A.4 Sex of the Child

iii. Girl ☐

iv. Boy ☐

A.5 Income Group:

i. Street Children: ☐

ii. Slum Children: ☐

iii. Higher middle /middle/Lower Middle: ☐

iv. High Income: ☐

B. Recreation information
How often, when and duration of time spend in this amusement park?

i. Frequency	√	ii. Time	√	iii. Duration of Time	√
1. Daily		1. Morning		1. Less than 30 min	
2. 1-3 times/week		2. Noon		2. 30 Min to 1 Hour	
3. Once in a week		3. Afternoon		3. 1-3 hour	
4. 1-3 times a month		4. Evening		4. More than 3 hour	
5. Occasionally		5. Not any define time		5. Not applicable	
6. First time in my life		6. others		8. No answer	
9. Missing		9. Missing		9. Missing	

C. What is distance of your house from this amusement park?

1. Less than ½ mile ☐

2. ½ to 1 mile ☐

3. 1-2 mile ☐

4. 2- 5 mile ☐

5. More than 5 mile ☐

6. From another district ☐

D. Mode of transport, travel time and travel cost to come from your house to this amusement park

i. Mode of transport	√	ii. Travel time	√	iii. Travel cost /child	√	Other cost (Entry fee & others)	√
1. By walk		1. Less than 5 min.		1. No cost		1. No cost	
2. By Rickshaw		2. 5 to 15 min.		2. Tk.5 to 10		2. Tk.5 to 10	
3. By car		3. 15 to 30 Min		3. Tk.10 to 25		3. Tk.10 to 25	

4. Bicycle		4. 30 min. to 1 hour		4. Tk.25 to 50		4. Tk.25 to 50	
5. Motor cycle		5. 2-3 hour		5. Tk.50 100		5. Tk.50 100	
6. Tempoo/ Auto-rickshaw		6. 3-5 hours		6. Tk. 100 to 200		6. Tk. 100 to 200	
8. Others		7. More than 5 hours		7. More than Tk.200		7. More than Tk.200	

E. What type of play/facilities do you enjoy most here? (ans. max. 3)

Name of facilities	√	Name of facilities	√
1. Mary go round		8.	
2. Slides		9.	
3. Train		10.	
4. Water games		11.	
5.		12.	
6.		13.	
7.		14.	

F. Information Regarding Use of Other Recreational/Leisure Facilities used by the child (ans. max. 4)

i. Type of leisure/recreation	√	i. Type of leisure/recreation	√	i. Type of leisure/recreation	√
1. Television		6. Amusement park		11. Chatting with friends over telephone	
2. Video		7. Eating out in a restaurant		12. Going outside country for recreation	
3. Video game		8. Book Reading		13. Health club	
4. Movie		9. Play (cricket, football, badminton etc)		14. Listening music	
5. Shopping centre		10. Park		15.	

G. Why do you come to this amusement park?

1. Many play facilities		7. Good transport facility	
2. Closer to my house		8. I have heard about it.	
3. Well maintained		9. Good restaurant/food	
4. No other amusement park near my house		10. Better security	
5. Very good design/structure		11. Others	
6. Many indoor games		12. Others	

H. Are you satisfied with the following facilities and maintenance of this amusement park ?
Satisfactory: 1 Dissatisfactory: 2 No answer: 3

i. Facility	√	i. Facility	√	ii. Maintenance	√
1. Plant		8. Restaurant		1. Cleaning	
2. Flower		9. Toilet		2. Rubbish collection	
3. Grass		10. Lighting		3. Lawn repairing	
4. Branch		11. Children's play facilities		4. Walkway repairing	
5. Shed		12.Drinking water		5. Mowing	
6. Lake/pond		13. Others		6. Watering	
7. Walk way		14. Others		7. Others	

1. Reasons for using/not using the nearest amusement park within your community

i. Reasons for using	√	ii. Reasons for not using	√
1. Secured		1. Insecure	
2. Clean		2. Grimy	
3. Well maintained		3. Difficult to access	
4. Easy accessible		4. Lack of maintenance	
5. Recreation		5. Fear mugging	
6. Others		6. Fear of kidnapping	
7. Not applicable		7. Parents not allow to go there	
		8. Fear of road accident	
		9. Others	
		10. Not applicable	

j. a Physical Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Small size		7. Absence of shed for shelter	
2. Absence of paved path		8. Others	
3. Absence of plants		9. Missing	
4. Absence of walkway		10. No problem	
5. Absence of lake/pond			
6. Absence of bench			

J. b. Environmental Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. Noisy area		7. Others	
2. Industrial gases		8. Others	
3. Gases of buses/scooters/etc.		9. Missing	
4. Crowded area		10. No problem	
5. Used for squatting			
6. Used for Loitering			

J c. Maintenance Problems (answer maximum 3)

i. Problems	√	**i. Problems**	√
1. No cleaning		7. No toilet cleaning	
2. No rubbish collection		8. Others	
3. No security		9. Missing	
4. No restriction for anti -social people		10. No Problem	
5. No restriction for cycle movement			
6. No mowing			

J.d Other problems

K. Which of the following do you consider essential for a good amusement park?

Physical, environmental and service facilities (Ans. max. 4 each)

i. Physical Facility	√	ii. Environmental Facility	√	iii. Service facility	√
1. Large area		1. Calm & quite area		1. Good lighting	
2. Clean area		2. Free from industry & office adjacent the park		2. Toilet	
3. Plant		3. Free from nursing home near the park		3. Shed for shelter	
4. Grass		4. Free from cow or other animals		4. Slipper (slide) for children	
5. Seasonal flower		5. Free from noise		5. Auto boat	
6. Walkway		6. Restriction for un-social people		6. Restaurant	

7. Lake/pond		7. Others		7. Others	
9. Missing		9. Missing		9. Missing	

L. What should be type, size, maximum distance of the amusement park from your house?

i. Type of amusement park	√	ii. Size of amusement park for your community	√	Distance of amusement park from your house	√
1. Small amusement park within the community		1. Less than or equal to 1/8 acre		1. Less than ½ mile	
2. Big amusement park outside the community		2. 1/8 to 2 acres		2. ½ to 1 mile	
3. Small or big within the community		3. 2-5 acres		3. 1-2 mile	
4. Amusement park and play ground within the community		4. 5-10 acres		4. 2-5 mile	
5. Amusement park and playground should be separated but adjacent		5. 10 and above		5. More than 5 mile	
6. Amusement park & playground should be combined		6. No answer		6. From another district	

Annex 6: Questionnaire for parent's views on outdoor play and recreation provisions

1. Serial Number: ☐ 2. Date:

3. Name of the Interviewer: 4. Ward No.

5. Name and Location of the Interview taken: 6. Zone/Thana:

A. General Information:
A.1 Name of the Respondent: A.2 Address of the house:

A.3 Age of the parent:

1. Below 30 years ☐ 3. 41 to 50 years ☐

2. 31 to 40 years ☐ 4. Above 50 years ☐

A.4 Sex of parent: 1.Father ☐ 2. Mother ☐

A.5 Age and sex of children:

1. 5 to 12 year by ☐ 3. 5-12 year girl ☐

2. 13 to 18 boy: ☐ 4. 13-18 year girl ☐

A.4 Income Group (monthly income/salary) Tk. /month

1. Parent of Street Children: ☐ 3. Parent of Middle/Lower income ☐

3. Parent of Slum Children: ☐ 4. High Income: ☐

B. Information regarding time of recreational/leisure of parents (ans. max. 4)

i. Type of leisure/recreation	√	i. Type of leisure/recreation	√	i. Type of leisure/recreation	√
1. Television		6. Amusement park		11. Chatting with friends over telephone	
2. Video		7. Eating out in a restaurant		12. Going outside country for recreation	
3. Movie hall		8. Book Reading		13. Health club	
4. Shopping		9. Morning walk		14. Listening music	
5. Video Game		10. Park			

C. Information regarding recreational/leisure of their children

i. Type of leisure/recreation	√	i. Type of leisure/recreation	√	i. Type of leisure/recreation	√
1. Television		6. Amusement park		11. Chatting with friends over telephone	
2. Video		7. Eating out in a restaurant		12. Going outside country for recreation	

3. Video game		8. Book Reading		13. Health club	
4. Movie		9. Play (cricket, football, badminton etc)		14. Listening music	
5. Shopping center		10. Park			

D. Do you have any outdoor/indoor recreational /leisure facilities for your children within half mile distance from your household?

1. Yes ☐ 2. No ☐

If yes, what type of facilities :

1. Play ground ☐ 2. Park ☐ 3. Amusement park ☐

4. Others : ☐

E. Distance of the nearest play ground/Amusement Parks

1. Less than ½ Mile ☐ 3. 1-2 mile ☐

2. ½ to 1 mile ☐ 4. More than 2 mile ☐

F. Reasons for using/not using the nearest play ground/park/amusement park for their children

i. Reasons for using	√	ii. Reasons for not using	√
1. Secured		1. Insecure	
2. Clean		2. Grimy	
3. Well maintained		3. Difficult to access	
4. Easy accessible		4. Lack of maintenance	
5. Recreation		5. Fear mugging	
6. Others		6. Fear of kidnapping	
7. Not applicable		7. Parents not allow to go there	
		8. Fear of road accident	
		9. Others	
		10. Not applicable	

G. Are you satisfied with the following facilities and maintenance of these play ground /park/amusement park where your children go for recreation?

Satisfactory: 1 ☐ Dissatisfactory: 2 ☐ No answer: 3 ☐

1. Play ground ☐ 2. Park ☐ 3. Amusement park ☐

4. Others : ☐

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i. Facility		i. Facility		ii. Maintenance	
1. Plant		8. Walk way		1. Cleaning	
2. Flower		9. Restaurant		2. Rubbish collection	
3. Grass		10. Toilet		3. Lawn repairing	
4. Branch		11. Lighting		4. Walkway	
5. Shed		12. Children's play facilities		5. Others	
6. Lake/pond		13.Drinking water			
7. Walk way		14. Others			

iii. Other problems:

H. Do you feel the necessity of enhancing the attractiveness of the nearby park/play ground/amusement park?

1. Yes ☐ 2. No ☐ 3. Not applicable ☐

H. i. If yes, how ? (for park)

1. To ensure more security ☐
2. To include more play facilities ☐
3. Planting seasonal flower ☐
4. Cleaning regularly ☐
5. Toilet facilities ☐
6. Make more maintained ☐
7. Lake /pond ☐
8. Establishing restaurant ☐
9. Water games ☐
10. Others ☐

G. ii. If yes, how ? (for Play ground)

1. Cleaning ☐
2. Shed for shelter ☐
3. Gymnasium ☐
4. Swimming pool ☐
5. Mowing ☐
6. More facilities (tennis, volley ball etc.) ☐
7. Lake /pond ☐
8. Establishing restaurant ☐
9. Toilet facilities ☐
10. Others ☐

H.iii. If yes, how ? (for Amusement park)

1. Cleaning ☐
2. Shed for shelter ☐
3. Gymnasium ☐
4. Swimming pool ☐
5. Mowing ☐
6. More facilities (tennis, volley ball etc.) ☐
7. Lake /pond ☐
8. Establishing restaurant ☐
9. Toilet facilities ☐
10. Others ☐

I. What should be maximum distance of the park/play ground /amusement park in your opinion?

1. Less than ½ mile ☐
2. ½ to 1 mile ☐
3. 1-2 mile ☐
4. More than 2 mile ☐
5. No answer ☐

J. Do you feel that for the development of your children it is important for your children to play regularly? If yes, why? If no, why?

K. Are you satisfied with the play and recreational facilities your children are enjoying ?
? If yes, why? If no, why?

L. What role you can play to improve the play ground/recreational facilities

M. What should be the role of local leaders/planners/developers/policy makers in this respect?

N. Other comments/Observation:

Annex 7a: Checklist for interview with professionals

Sl. No.	Questions
1.	Comments and views about the existing play and recreation facilities in Dhaka city, its implication on children and how to improve these facilities.
2.	The design considerations for the design of play space for children.
3.	The possible ways for children to take part in initiating some of the recreational facilities in their community.
4.	The roles and responsibilities of the concerned service providers should play for these children-led community-based play initiatives.
5.	The standard guidelines for the children's play ground in the existing areas as well as in the newly developed areas in Dhaka city.
6.	Legislative measures the professionals need to apply for the creation of play facilities in apartments/mixed use/slum /public areas of Dhaka City.
7.	The necessary measures to stop encroachment of playgrounds and parks.

Annex 7b: List of professionals interviewed

Sl. No.	Name of the Person	Designation and Organization
1.	Mr. Carel De Rooy	Representative United Nations Children's Fund (UNICEF) Bangladesh Country Office, Dhaka
2.	Dr. M. Jahurul Hoque	Chief Town Planner Rajdhani Unnayan Kartripakkha (RAJUK) (Capital Development Authority) Dhaka
3.	Mr. Mubasshar Hussain	Chairman, Architects Regional Council of Asia (ARCASIA) President, Institute of Architects Bangladesh (IAB)
4.	Mr. Mohammad Sirajul Islam	Chief Town Planner Dhaka City Corporation (DCC) Urban Planning Department, Dhaka
5.	Dr. Roxana Hafiz	Professor and Head Department of Urban and Regional Planning Bangladesh University of Engineering and Technology (BUET), Dhaka
6.	Mr. Iqbal Habib	Joint Secretary Bangladesh Environment Movement (BAPA) And Architect Director Vitti Sthapati Brindo Ltd.
7.	Mr. Jalal Ahmed	Principle Architect J.A. Architects And Joint Secretary, Asian Institute of Architects
8.	K. M. Maniruzzaman	Professor Urban and Regional Planning Department, Bangladesh University and Engineering and Technology (BUET)

9.	Mr. Khurshid J. H. Toufique	Urban Planner, National Housing Authority, Dhaka
10.	Ms. Nargis Tanjiman Ara	Deputy Director (Architecture) Rajdhani Unnayan Kartripakkha (RAJUK) (Capital Development Authority), Dhaka

Annex 8: Name, Location and Area of Parks, Playgrounds and Amusement Parks in Dhaka City

SL. NO.	WARD NO.	ZONE NO.	ID	NAME	LOCATION	AREA (SQ. M)	AREA (ACRES)	AREA (HEC.)
1	1	10	7	Bd. House Building Staff Quarter	House Building, Uttara	1615.06	0.402	0.163
2	1	10	6	Uttara Girls High School	Rd # 9, Sec # 6, Uttara	5721.95	1.424	0.576
3	1	10	P2	Sec. 6 Park	Sec # 6, Uttara	12772.86	3.179	1.287
4	1	10	1	Uttara High School Play Field	Rd.# 1, Sec # 7, Uttara	4004.88	0.997	0.403
5	1	10	P1	Uttara High School Park	Rd.# 1, Sec # 7, Uttara	6723.96	1.674	0.677
6	1	10	5	Rajuk Uttara Model College	Sec # 6, Uttara	10025.92	2.495	1.010
7	1	10	4	Azampur Govt. Primary School	Sec.# 6, Uttara	2947.87	0.734	0.297
8	1	10	2	Uttara Friends Club Play Field	Rd.# 4, Sec # 3, Uttara	4744.48	1.181	0.478
9	1	10	3	Sec. 4 Play Field	Rd.# 8, Sector # 4, Uttara	35048.34	8.723	3.530
10	2	8	1	City Club Playfield	Pallabi 11.5, Mirpur	11903.38	2.963	1.199
11	3	8	1	Mirpur Girl's Ideal School	Mirpur 10, Mirpur	6299.17	1.568	0.634
12	3	8	2	Shenpara Parbata Govt. Primary School Playground	Mirpur 10, Mirpur	3885.87	0.967	0.391
13	5	8	1	Mirpur Bangla High School Playground	Mirpur 11, Mirpur	4833.15	1.203	0.487
14	6	8	1	Pallabi Majedul High School Math	Pallabi, Mirpur	6081.61	1.514	0.613
15	6	8	S1	National Indoor Stadium	Section 6, Mirpur	3498.57	0.871	0.352
16	7	8	1	Outer Stadium	Mirpur 2, Mirpur	14223.08	3.540	1.433
17	7	8	S1	Sher-e-Bangla National Stadium	Mirpur 1, Mirpur	30400.99	7.567	3.062
18	7	8	S2	Mirpur Swimming Pool	Mirpur 1, Mirpur	4649.08	1.157	0.468
19	7	8	2	National Bangla High School	Mirpur 2, Mirpur	11154.16	2.776	1.123
20	7	8	3	Mirpur Degree College	Mirpur 2, Mirpur	5054.93	1.258	0.509
21	7	8	4	German Technical Field	Mazar Road, Mirpur	2458.21	0.612	0.248
22	8	8	P1	National Botanical Garden	Mirpur	620102.00	403.234	163.184

23	8	8	*	National Zoo	Mirpur	148554.40	36.974	14.963
24	8	8	8	BCIC Colony Playground	Shial Bari, Mirpur	7004.90	1.743	0.706
25	8	8	7	BCIC School Field	Zoo Road, Mirpur	1558.57	0.388	0.157
26	8	8	6	Kizi Furi Eidgah Field	Hazi Road, Mirpur	1918.91	0.478	0.193
27	8	8	3	Akbar Mosque Eidgah Field	Zoo Road, Mirpur	4132.82	1.029	0.416
28	8	8	4	Upashahar Playfield	Mazar Road	4798.41	1.194	0.483
29	8	8	1	Mirpur Govt. High School	Mazar Road	4717.44	1.174	0.475
30	8	8	2	Mohila College and High School	Shah Alibagh, Mirpur	3497.20	0.870	0.352
31	11	7	3	Paikpara 'D' Type 4th Class Colony Playground	Dar-us-salam Rd, Paikpara, Mirpur	4601.06	1.145	0.463
32	11	7	2	Paikpara Officer's Quarter Playground	Dar-us-salam Rd, Paikpara, Mirpur	7834.36	1.950	0.789
33	11	7	1	Govt. Bangla College	Paikpara, Mirpur	13328.94	3.317	1.343
34	13	7	1	Bikalpa Math	Mazar Road, Mirpur	2811.69	0.700	0.283
35	14	7	1	Mirpur Ideal High School	Mirpur 10, Mirpur	5292.73	1.317	0.533
36	17	9	3	Rd. No. 21 Playground	Rd # 21, Khilkhet	2689.01	0.669	0.271
37	17	9	6	Rising Sun High School Playground	Khilkhet	6345.42	1.579	0.639
38	17	9	5	Taltola Math	Taltola, Khilkhet	5562.44	1.384	0.560
39	17	9	2	Eidgah Math	Rd # 5, Khilkhet	6833.87	1.701	0.688
40	17	9	1	DIT Math	Rd # 5, Khilkhet	6777.03	1.687	0.683
41	17	9	4	Kurmitola High School Playground	Khilkhet	2072.09	0.516	0.209
42	17	9	6	Chairman Barir Math	Chairman Bari, Mohakhali	4056.90	1.010	0.409
43	18	9	P1	Baridhara Park	Park Road, Mirpur	3604.12	0.897	0.363
44	19	9	P2	Gulshan Park	Gulshan Avenue, Gulshan	22389.83	5.573	2.255
45	19	9	P1	Gulshan Tank Park	Gulshan-Rd. 83	12831.15	3.194	1.292
46	19	9	2	Banani Biddya Niketan Playground	Rd.# 4, Banani	5436.44	1.353	0.548

47	19	9	3	Civil Aviation Quarter	Rd.#27, Banani	7472.17	1.860	0.753
48	19	9	A1	Wonderland Amusement Park	Gulshan Avenue, Gulshan	11313.56	2.816	1.140
49	19	9	5	Cosmic Ground	Rd # 13, Banani	5180.98	1.290	0.522
50	19	9	4	Hawa Bhaban Ground	Rd.#13, Banani	5733.38	1.427	0.577
51	19	9	P3	Banani Park	Banani-Rd. 7	8488.64	2.113	0.855
52	19	9	1	DCC 4th Class Cleaner's Quarter Playground	Gulshan-Rd. 1	4793.89	1.193	0.483
53	20	9	1	T&T Colony Playground	Mohakhali	10130.84	2.522	1.020
54	20	9	2	Mohakhali 2nd Division Football Club Playground	Mohakhali	5324.18	1.325	0.536
55	20	9	3	Govt. Titumir College Playground	Mohakhali	7211.59	1.795	0.726
56	20	9	5	Ghorar Math	Mohakhali	1773.28	0.441	0.179
57	20	9	4	IPH High School Playground	Mohakhali	2346.22	0.584	0.236
58	24	4	1	Khilgaon Government High school	Khilgaon	6207.74	1.545	0.625
59	24	4	3	Khilgaon High school Balur Math	Khilgaon	5423.06	1.350	0.546
60	24	4	2	Khilgaon Girl's High school and College	Khilgaon	1839.35	0.458	0.185
61	24	4	4	Khilgaon High school	Khilgaon	627.88	0.156	0.063
62	25	4	1	Ali Ahmed High School Playground	East Goran	7781.39	1.937	0.784
63	27	4	2	Madartek Abdul Aziz School and College	Madartek, Basabo	4306.46	1.072	0.434
64	27	4	1	Middle Basabo Playfield	Middle Basabo	6965.11	1.734	0.702
65	29	4	S1	Kamlapur National Stadium	Kamlapur	36423.48	9.066	3.669
66	31	4	1	Brother's Union Playfield	Ramkrishna Mission Road	8615.39	2.144	0.868
67	32	4	P1	Motijheel Park	Motijheel	7853.44	1.955	0.791
68	32	4	1	Arambagh Balur Math	Arambagh, Motijheel	7160.56	1.782	0.721
69	32	4	2	Banga Bhaban Staff Quarter Playground	Ittafaq, Motijheel	6109.77	1.521	0.615
70	33	4	13	AGB Colony Math	AGB Colony, (MZ), Motijheel	8065.47	2.007	0.812
71	33	4	12	3 No. Math	T&T Colony, Motijheel	2524.46	0.628	0.254

72	33	4	11	6 No. Math	T&T Colony, Motijheel	1807.14	0.450	0.182
73	33	4	10	Baitul Aman Jame Masjid Playground	T&T Colony, Motijheel	6106.31	1.520	0.615
74	33	4	9	Pukur Math	T&T Colony, Motijheel	925.86	0.230	0.093
75	33	4	7	AGB Colony Playground	AGB Colony, Motijheel	1440.04	0.358	0.145
76	33	4	8	T&T High School Playground	T&T Colony, Motijheel	2979.97	0.742	0.300
77	33	4	6	Progoti Math	AGB Colony, Motijheel	8316.66	2.070	0.838
78	33	4	5	Eidgah Math	Central Govt. Colony, Motijheel	2934.42	0.730	0.296
79	33	4	4	School Math	Bank Colony, Motijheel	1574.71	0.392	0.159
80	33	4	3	Bank Colony Playground 3	Bank Colony, Motijheel	1187.75	0.296	0.120
81	33	4	2	Bank Colony Playground 2	Bank Colony, Motijheel	2225.45	0.554	0.224
82	33	4	1	Bank Colony Playground 1	Bank Colony, Motijheel	2509.09	0.624	0.253
83	34	4	3	Shahjahanpur Railway Colony Playground	Shahjahanpur Railway Colony	2281.04	0.568	0.230
84	34	4	2	Shahjahanpur Railway Govt. High School Playground	Shahjahanpur Railway Colony	2738.83	0.682	0.276
85	34	4	1	Shahjahanpur Railway Colony Playground	Shahjahanpur Railway Colony	5866.27	1.460	0.591
86	35	4	2	Shahid Iqbal Faruk Girl's High school Playground	Malibag	1739.71	0.433	0.175
87	35	4	1	Abu Jar Gifari (R) University College Playground	Malibag	2965.83	0.738	0.299
88	36	4	1	Rajarbagh Police Line	Rajarbagh	11266.27	2.804	1.135
89	36	4	S1	Bangladesh National Stadium	Motijheel	37896.59	9.432	3.817
90	36	4	2	Paltan Moydan	Stadium, DIT Avenue	24650.01	6.135	2.483
91	36	4	S2	Moulana Bhasani Hockey Stadium	Motijheel	20210.85	5.030	2.036
92	36	4	P1	Gulistan Park	Gulistan	45444.34	11.311	4.577
93	39	6	1	Khelaghar Samaj Kallyan Samity	Tejgaon	8750.09	2.178	0.881
94	40	6	4	Sher-E-Bangla Nagar Staff Quarter Playground	Agargaon	1572.54	0.391	0.158
95	40	6	P4	Mohila Park	Agargaon	2715.33	0.676	0.273
96	40	6	1	SGGH School Playfield	Agargaon	2046.41	0.509	0.206

97	40	6	5	Paka Market Math	Agargaon	6798.51	1.692	0.685
98	40	6	P3	Gach Math	Agargaon Avenue	9941.33	2.474	1.001
99	40	6	3	Sher-E-Bangla Nagar Staff Quarter Playground	Agargaon	2899.54	0.722	0.292
100	40	6	A1	Sishu Mela	Agargaon	28373.01	7.062	2.858
101	40	6	P1	Chandrima Uddyan	Sher-e-Bangla Nagar	307437.50	76.519	30.966
102	40	6	*	Sangshad Bhaban	Snagshad Bhaban	667714.80	166.190	67.255
103	40	6	*	Novotheater	Bijoy Sharani	15751.70	3.921	1.587
104	40	6	P2	Park at Farm Gate	Farm Gate	40160.41	9.996	4.045
105	40	6	4	Rajdhani High School Playground	Manik Mia Avenue	2768.30	0.689	0.279
106	42	6	1	Symoli Club Math	Symoli	7322.13	1.822	0.738
107	42	6	2	Tajmahal Rd. Park Chanderhat Playground	Tajmahal Rd., Mohammadpur	3640.22	0.906	0.367
108	42	6	P1	Tajmahal Rd. Park Chanderhat Park	Tajmahal Rd., Mohammadpur	1797.66	0.447	0.181
109	44	6	1	Sher Shah Shuri Rd. Playground	Mohammadpur	7429.76	1.849	0.748
110	44	6	2	Sir Salimullah Road Playground	Sir Salimullah Rd., Mohammadpur	2749.38	0.684	0.277
111	44	6	3	Shahid Park Hall Town	Asad Avenue, Mohammadpur	6849.90	1.705	0.690
112	45	6	1	PC Culture Playground	Symoli	13291.86	3.308	1.339
113	45	6	2	Biju Math	Humayun Road, Mohammadpur	6556.94	1.632	0.660
114	45	6	6	Residential Model School and College Playground	Mirpur Road, Mohammadpur	12884.52	3.207	1.298
115	45	6	8	Iqbal Road Playfield	Iqubal Road, Mohammadpur	7488.36	1.864	0.754
116	45	6	7	Saint Joshep's High School	Asad Avenue, Mohammadpur	5800.87	1.444	0.584
117	45	6	5	Lalmatia New Colony Math	Lalmatia, Mohammadpur	14910.09	3.711	1.502
118	45	6	4	Lalmatia Block D Playground	Lalmatia, Mohammadpur	4302.60	1.071	0.433
119	45	6	3	Lalmatia Women's College	Lalmatia, Mohammadpur	12840.42	3.196	1.293
120	45	6	9	Lalmatia Girl's High School Playground	Lalmatia	2802.13	0.697	0.282

121	46	6	1	Physical Training College	Satmasjid Road, Mohammadpur	6070.30	1.511	0.611
122	49	5	*	Bangabandhu Museum	Rd.#11, Dhanmondi	650.67	0.162	0.066
123	49	5	P1	Dhanmondi Lake Park	Dhanmondi	88243.77	21.963	8.888
124	49	5	4	Kalabagan Cricket Club Playground	Rd.#4, Dhanmondi	11654.23	2.901	1.174
125	49	5	S1	Abahani Cricket Club (Sports Center)	Satmasjid Road, Dhanmondi	47606.68	11.849	4.795
126	49	5	5	Kamrunnesa Girl's School Playground	Rd.#11/A, Dhanmondi	14776.35	3.678	1.488
127	49	5	1	Bangladesh Women's Sports Federation	Dhanmondi	20639.99	5.137	2.079
128	49	5	P1	Park around Dhanmondi Lake	Dhanmondi	29918.65	7.447	3.014
129	49	5	2	Dhanmondi Club Playground	Mirpur Road, Dhanmondi	20196.52	5.027	2.034
130	49	5	6	Officer's Quarter Playground	Rd.#7, Dhanmondi	1172.53	0.292	0.118
131	49	5	P2	Eidgah Park	Rd.#7/A, Dhanmondi	1554.66	0.387	0.157
132	49	5	3	Dhanmondi Cricket Academy	Rd.#4, Dhanmondi	5795.23	1.442	0.584
133	50	5	1	Meherunnessa Girl's High school	Hatirpul	1239.80	0.309	0.125
134	51	5	1	Dhanmondi Boys School Playground	Mirpur Road	6686.32	1.664	0.673
135	51	5	2	Sobahanbagh Officer's Quarter Playground	Sobahanbagh	4078.30	1.015	0.411
136	51	5	3	New Model High school	Shukrabad	2618.09	0.652	0.264
137	52	5	4	BCSIR Staff Quarters Playground	BCSIR Staff Quarter, Elephant Road	6770.72	1.685	0.682
138	52	5	2	TTC Playground	TTC, New Market	5718.18	1.423	0.576
139	52	5	5	Dhaka College Tennis Court	Dhaka College, New Market	1585.70	0.395	0.160
140	52	5	3	Dhaka College Playground	Dhaka College, New Market	12528.63	3.118	1.262
141	52	5	1	Dhaka College Playground	Dhaka College, New Market	4859.58	1.210	0.489
142	53	5	A1	Ispahani Colony Amusement Park	Moghbazar, Ramna	1310.82	0.326	0.132
143	53	5	2	Vikarunnessa Playground	Siddeswari	4482.10	1.116	0.451
144	53	5	1	Sideswari Playground	Sideswari	2367.94	0.589	0.239

145	55	5	1	Noyatola Modhubagh Playfield	Noyatola, Moghbazar	6249.01	1.555	0.629
146	55	5	P1	Noyatola Child Park	Noyatola, Moghbazar	4277.98	1.065	0.431
147	56	5	P1	Ramna Park	Ramna	293500.60	73.051	29.563
148	56	5	S1	Bangladesh National Tennis Federation	Shahabag	6257.48	1.557	0.630
149	56	5	A1	Shishu Park	Shahabag	89048.46	22.164	8.969
150	56	5	P2	Sohrawardi Uddyan	DU TSC	277624.40	69.099	27.963
151	56	5	P3	Osmani Uddyan	Gulistan	53703.64	13.367	5.409
152	56	5	1	Dhaka University Library Playground	Dhaka University	19053.27	4.742	1.919
153	56	5	2	BUET Math	BUET	23939.32	5.958	2.411
154	57	5	P1	Pantha Kunja Park	Sonargaon Road	21534.67	5.360	2.169
155	57	5	*	National Museum	Shahabag	23465.44	5.840	2.364
156	57	5	P2	Malchattar Park	Dhaka University	19060.22	4.744	1.920
157	57	5	1	Mohsin Hall Playground	Dhaka University	21987.02	5.472	2.215
158	57	5	2	Fullar Road Teacher's Quarter Playground	Fullar Road, Dhaka University	1151.43	0.287	0.116
159	57	5	4	Jagannath Hall Playground	Dhaka University	6520.91	1.623	0.657
160	57	5	3	Zahrul Haq Hall Playground	Dhaka University	7072.62	1.760	0.712
161	57	5	5	S.M Hall Playground	Dhaka University	5027.08	1.251	0.506
162	61	3	*	Lalbag Fort	Lalbag	82073.92	20.428	8.267
163	62	3	1	Azimpur Govt. Quarter Playground	Azimpur	3841.47	0.956	0.387
164	62	3	2	Azimpur Govt. Quarter Playground	Azimpur	6870.54	1.710	0.692
165	62	3	8	Azimpur Colony Playground 8	Azimpur	1824.66	0.454	0.184
166	62	3	7	Azimpur Colony Playground	Azimpur	1901.26	0.473	0.192
167	62	3	6	Azimpur Colony Playground	Azimpur	2235.63	0.556	0.225
168	62	3	5	Azimpur Colony Playground	Azimpur	2538.87	0.632	0.256
169	62	3	4	Azimpur Colony Playground	Azimpur	2474.70	0.616	0.249

170	62	3	3	Azimpur Colony Playground	Azimpur	3114.34	0.775	0.314
171	63	3	2	BUET Staff Quarter Playground	BUET	2588.39	0.644	0.261
172	63	3	1	Bakshi Bazar Playground	Bakshi Bazar	7892.61	1.964	0.795
173	65	3	1	Rahamatganj Playground	Rahamatganj	8845.49	2.202	0.891
174	67	2	3	Armanitola Govt. High school	Armanitola	8118.71	2.021	0.818
175	67	2	2	Armanitola Govt. High school	Armanitola	2454.91	0.611	0.247
176	67	2	1	Armanitola Playground	Armanitola	6085.21	1.515	0.613
177	68	2	1	Samsabad Lane playground	Samsabad Lane	4166.33	1.037	0.420
178	68	2	P1	Park	Zindabahar 1st Lane	1240.39	0.309	0.125
179	69	2	1	Bangladesh Math	Aga Sadek Road	11859.47	2.952	1.195
180	70	2	1	Suitola High School Playground	North-South Road	727.50	0.181	0.073
181	71	2	P1	English Road Amusement Park	English Road	4800.29	1.195	0.484
182	73	2	1	Jagarnath University College	Liakot Avenue	5887.43	1.465	0.593
183	73	2	4	Pogos High school	Liakot Avenue	4887.99	1.217	0.492
184	73	2	*	Ahsan Manjil	Ahsan Ullah Road	8236.51	2.050	0.830
185	73	2	2	Dhaka Govt. Collegiate school	Liakot Avenue	3964.06	0.987	0.399
186	73	2	3	Bangla Bazar Govt. High school	Liakot Avenue	3835.65	0.955	0.386
187	77	1	P1	Bolda Garden	Folder Street	10445.54	2.600	1.052
188	78	2	P1	Bahadurshah Park	Johnson Road	9712.34	2.417	0.978
189	81	1	1	Dhupkhola Playfield	Dhupkhola	9579.13	2.384	0.965
190	84	1	P1	Jatrabari Crossing Park	Jatrabari	6341.35	1.578	0.639
191	84	1	1	PDB Colony	Jatrabari	3660.83	0.911	0.369
192	84	1	2	WAPDA Colony	Jatrabari	983.89	0.245	0.099
Total						**4086323.64**	**1265.96**	**512.31**

Indication of ID

Under this field,

1, 2, 3, etc	means	Playgrounds / Playfields
P1, P2, P3, etc	means	Parks
A1, A2, A3, etc	means	Amusement Parks
S1, S2, S3, etc	means	Stadium
*	means	Others

'Others' include National Zoo, Sangshad Bhaban (National Assembly Hall), Novo Theater, Banga Bandhu Museum, National Museum, Lalbag Fort and Ahsan Manjil.

Annex 9: Ethical Questions

Following questions developed for UNICEF managers of monitoring, evaluation and research activities (UNICEF, 2002c) which are originally adapted from Alderson (1995):

i. Purpose

- Is the topic worthwhile? How are the findings likely to benefit children? How will they add to what is already known?
- If the findings are meant to benefit certain children, who are they and how might they benefit?
- Assuming findings are to be used to facilitate decision-making, who do they target? Is children's role in decision-making facilitated by the activity?

ii. Cost and hoped-for benefits

- What contribution are children asked to make, such as activities or responses to be tested, observed or recorded? Is this a one-off contribution or, as in the case of some monitoring activities, will this be repeated?
- Might there be risks or costs- time, inconvenience, embarrassment, intrusion of privacy, sense of failure or correction, fear of admitting anxiety? Also, consider retribution in context of conflict.
- Might there be benefits for children who take part – satisfaction, increased confidence or knowledge, time to talk to an attentive listener, an increased role in decision-making processes affecting them?
- Are there risks and costs if the research, monitoring or evaluation activity is not carried out?
- How can the researchers or managers of research and M&E promote possible benefits of the work?
- What is planned to prevent or reduce any risks? What is the guidance regarding data collectors/researchers respond to children who wish to refuse or withdraw? What will be the procedure with children who become distressed (e.g. if they simply feel uncomfortable, or if participation requires them to relive or experience emotional or psychological trauma) on the spot and in terms of referrals and follow-up? What steps are taken to ensure the protection and supervision of the children involved, including against bad practices by data collectors/researchers?
- Are the methods being tested with a pilot group? Will risks and costs be reassessed after piloting and what protection is offered to children in the pilot?

iii. Privacy and confidentiality

- How will the names of children be obtained, and will they be told about the source?
- Does the selection method allow children and parents to opt into the activity (e.g. to volunteer for selection)? Is the selection method intrusive or coercive?
- Will interviews directly with individuals be conducted in a quiet, private place?
- Can parents be present or absent as the child prefers?
- In rare cases, if front line researchers/evaluators think that they must report a child's confidences, such as when they think someone in danger, will they try to discuss this first with

the child? Do they warn all children that this might happen? Who will they report to and who/how many people will be involved? Who will guide this process?

- Will personal names be changed in records and in reports to hide the child's identity? What should be done if children prefer to be named in reports?

- Will the data collection records, notes, tapes, films or videos, be kept in lockable storage space? Who will have access to these records, and be able to identify the children?

- When significant extracts from interviews are quoted in reports, should researchers/evaluators first check the quotation and commentary with the child and parent concerned? What should be done if respondents want the reports to be altered?

- Is there some verification that the field researchers in direct contact with the children do not represent a risk to children, i.e. have the appropriate values, attitude and skills to deal with each child ethically and compassionately?

- Should records be destroyed when the research or M&E activity is completed or when related programme activity ends?

- Will the children be re-contacted at different points during the course of the programme for ongoing monitoring or evaluation, or is it ethical to ask the same children to take part in another research activity? In either case, how will the list of contact names be managed, stored?

iv. Selection, inclusion and exclusion

- Why have the children condemned been selected to take part in the activity?

- Have efforts been made to reach marginalised, indigenous or disadvantaged children? Are issues of accessing these children satisfactorily dealt with the methodology?

- If some of the children selected do belong to disadvantaged groups, have the researchers made allowance for any extra problems or anxieties they may have? Does the methodology accommodate their differing capacities?

- Have some children been excluded because, for example, they have speech or learning difficulties? Can the exclusion be justified?

- Are the findings intended to be representative of typical of a certain group of children? If so, have the children in the study been sufficiently well selected to support these claims?

- Do the design and planned numbers of children to be involved allow for refusals and withdrawals? If too many drop out, the effort may be wasted and therefore unethical. Consider also the possibility of withdrawals at different points in repeated monitoring activities.

- If the issue or questions being investigated are about children, is it acceptable only to include adult subjects?

v. Funding

- Are the children's and parents' or carers' expenses repaid?

- Should children be paid or given some reward after helping with the activity? Does the role of the children play a factor in whether or not they are paid, i.e. if children are active decision-makers as opposed to interviewees?

- How do these practices compare to those of other organizations working in the same region?

- How do the practices of paying children compare with payment of adults involved (e.g. parents, teachers, other community members)?

vi. Process of review and revision of ToRs and methodological proposal

- Have children or their carers helped to plan or comment on the methodological proposal?
- Has a committee, a small group or an individual reviewed the protocol specifically for its ethical aspects and approach to children?
- Is the methodological design in any way unhelpful or unkind to children?
- Is there scope for taking account of comments and improving the design?
- Are the researchers accountable to anyone, to justify their work? Are researchers', managers' and other stakeholders' responsibilities vis-a-vis ethical practices clearly established?
- What are the agreed methods of dealing with complaints?

vii. Informing children, parents and other carers

- Are the children and adults concerned given details about the purpose and nature of the research or M&E activity, the methods and timing, and the possible benefits, harms and outcomes? If children are not informed, how is this justified?
- Does a researcher/evaluator also encourage children and adults concerned to ask questions, working with an interpreter if possible/
- Are key concepts, such as 'consent', explained clearly?
- Are children and /or adults given a clear written sheet of leaflet to keep, in their first language? If literacy is an issue, how is this handled in terms of ensuring children and their carers can access and review someone from the team if they wish to comment, question or complain?

viii. Consent

- As soon as they are old enough to understand, are children told that they can consent or refuse to take part in the activity?
- Do they know that they can ask questions, perhaps talk to other people, and ask for time before they decide whether to consent?
- Do they know that if they refuse or withdraw from the activity this will not be held against them anyway?
- How do the researchers/evaluators help the children to know these things, and not to feel under pressure to give consent?
- How do they respect children who are too shy or upset to express their views freely?
- Are parents or guardians asked to give consent?
- How will the situation be handled if a child wants to volunteer but the parents refuse?
- Is the consent written, oral of implied? What is legally required and appropriate in the context?
- If children are not asked for their consent, how is this justified?

ix. Dissemination

- Will the children and adults involved receive short reports on the main findings or other forms of feedback?
- Are the capacities of children and their preferences for how they receive feedback taken into consideration?

x. **Impact on children**

- Does the research, monitoring or evaluation activity have any impact on children's capabilities, on the degree to which their environment is supportive of their participation 9e.g. a change to attitudes of parents or other adults, to customs or to laws) or on future opportunities for participation (e.g. a change to practices in schools or other fora where children may participate; the creation of new fora, organizations etc.)? Was any such impact planned for the design?

- Have children involved been realistically prepared for the expected impact, whether small or large?

- Besides the effects of the activity on the children involved, how might the conclusions affect larger groups of children?

- What models of childhood are assumed, e.g. children as weak, vulnerable and dependent on adults; as immure, irrational and unreliable; as capable of being mature agents; as consumers? How do these models affect the methods of collecting and analysing data.

- Is the approach reflexive, in that those involved in data collection and analysis critically discuss their own prejudices?

- Do they use positive images in reports and avid stigmatising, discriminatory terms?

- Do they try to listen to children and children's own terms, while aware that children can only speak in public through channels designed by adults/

- Do they try to balance impartial assessment with respect for children's worth and dignity?