



# PAKISTAN

## Strategy Support Program



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# Urban Open Spaces for Adolescent Girls: An Assessment for Islamabad and Rawalpindi, Pakistan

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# THE PAKISTAN STRATEGY SUPPORT PROGRAM (PSSP) WORKING PAPERS

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## **ABSTRACT**

Urban open spaces are valued for their health, social, economic, and environmental benefits. Outdoor physical activity is important for the wellbeing of youth, while playfulness is crucial for creativity and innovation. It is observed that in Pakistan the access of adolescent girls to public open spaces and school playgrounds is restricted, but there has been no prior scientific study. This research has studied the impediments in four planned and unplanned localities of Islamabad and Rawalpindi. The restrictions on girls are pervasive and become more severe upon their attaining puberty. The values of city and local parks as adolescent-girl-friendly spaces (AGFS) have been assessed. The project has developed AGFS designs for parks and playgrounds, and tested the preferences of the target beneficiaries. Adolescent girls prefer creative play spaces with loose materials and cycling over fixed play fixtures. Institutional and programmatic interventions are proposed on the basis of the findings and consultations.

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## INTRODUCTION

This introduction is comprised of three sub-sections. The first makes explicit the perspective of the researchers, the second summarizes the components and scope of the research undertaken, and the third sets out the organization of this Working Paper.

### Research Perspective (Or Where We Are Coming From)

This research project has emerged from a prior collaboration between a post-graduate program for environmental design professionals (architects, town planners, and engineers) and an environmental education program for schoolchildren. Both programs take a holistic view of the environment; examining and extending best practices across its physical and socio-cultural dimensions. Teaching and research in this domain use an interdisciplinary approach; exploring the links between scientific and technical knowledge and ethical and practical issues. The purpose in harnessing and propagating this praxis is to nurture both the individual and the community. It is premised on two considerations: that the sensitive design of cities and urban landscapes can help create spaces that respond to the spiritual/psychological and health/physical needs of all sections of humanity, including the vulnerable and the deprived, and that opportunities for exploration, teamwork, leadership, and stewardship in playgrounds and parks are important for the development of children and young people (Lynch 1977, Turner 2004).

The practices of good environmental design and participatory action learning under this paradigm take a trans-disciplinary approach to framing issues, options, and solutions in the context of urbanity and the built-environment. Rapid urbanization and city growth are changing land use patterns and limiting the availability of urban open spaces. Concurrently, the growing concerns of parents about safety and security are restricting the access of children to the open spaces. Adolescence is a rapid developmental phase in which youth enhance their personal and social assets but are also more vulnerable to physical and moral hazards. To address these factors, this research project combines empirical and action research. The approach is premised on the hypotheses that children and young people have evolving preferences and priorities that need to be understood by adults, that open spaces, especially public parks and schoolyards, offer high quality opportunities for youth development, and that restrictions imposed on girls in the name of ‘cultural norms’ limit, not only their human growth, but also that of society. Adolescent girls are both the focus and among the principal agents of the research.

The framework for policies emerging from the discussion rests in the United Nations Convention for the Rights of the Child (UNCRC), the Agenda 21 Chapter 25 on Children and Youth for Sustainable Development, and other global commitments and declarations, such as at the World Summit for Children. In addition to the obligation for children’s health and wellbeing, the UNCRC is the pillar of a significant shift in thinking about children, young people, and childhood, introducing participation as a third ‘P’ alongside provision and protection (Skelton, 2007). Article 31 recognizes children’s right to play and leisure and implicitly sufficient time for leisure, and the provision of safe and appropriate places within communities for children’s play and recreation. We seek to learn from the various global and regional child-friendly-cities (CFC) initiatives and growing up in cities (GUIC) programs, and to contextualize and extend the lessons learnt to urban Pakistan.

### Description of Research

The study comprises secondary and primary, empirical and action, research components:

- The secondary research consists of a literature review collating relevant materials from books, research papers, and newspaper and magazine articles on urban open spaces and adolescence, particularly the concepts and best practices of Child-Friendly-Cities and -Spaces, and contextualizing them in the national urban situation of Pakistan.
- The empirical primary research component consists of the assessment of the quality and quantity of urban open spaces using criteria derived from the CFC concept initially developed by Kevin Lynch in 1977. The basic axiom is, “The best environment for children is a city that implements clear rules and provides similar opportunity for all children to learn and explore their environment.”
- The action research seeks to influence design, policy, and programmatic interventions for urban open spaces that could enable physically healthy and socially rewarding activities among adolescent urban girls. It has ascertained the perspectives of secondary school age girls and their guardians, and a control group of boys, on their current usage and impediments to the use of urban open spaces. It has also investigated the

preferences and priorities of early and late adolescent girls for outdoor physical activities and facilities in specific parks and school playgrounds of Islamabad and Rawalpindi.

- The study advocates changes in policies, standards, rules, and regulations governing land use. The recommendations are based on an analysis of the findings and on the suggestions of inter-generational working groups and specialists for the safety, security, accessibility, and comfort of parks and school playgrounds, along with the provision of facilities and improvements to their environment, ecology, and educational values.

To operationalize this first phase of the research program, the scope of the primary research has been limited to four major parks and four localities of Islamabad and Rawalpindi. The primary data on the target groups of adolescent girls, boys, and guardians has been collected from a convenience sample of schools and colleges that provide education to the children of the four localities. The research tools comprise library and web searches, independent assessment, participant observation, semi-structured interviews and focus group discussions, and group work by the respondents.

The research has compiled the relevant publications on urban open space and adolescence. It has mapped the daily and weekend activities of adolescent girls and boys of different age-groups during the summer and winter months based on recent recall. The uses and the impediments to the use of urban open spaces by adolescent girls of different age groups, as well as those of a control group of boys, have been documented based on their own and their guardian's perspectives. Four city parks have been evaluated on child friendly space (CFS) criteria for adolescent-girl friendly recreational values, while the mix of participants in local parks has been observed over a year. Plans have been made for improving specific school and college playgrounds, along with local and city parks, according to CFS criteria. The layouts and designs have been used to further explore the initial and informed preferences of the target beneficiaries.

## Organization of the Paper

The Working Paper is set out in six sections. The next section reviews the research literature on the key concepts. The third section elaborates upon the research objective, design, and tools. Following this, the fourth section provides the findings from the literature review, activity mapping, semi-structured interviews, and focus group discussions. The fifth presents the preferences of adolescent girls before and after exposure to design interventions in selected parks and schoolyards. And finally the sixth section describes the consultation process, draws inferences, and makes evidence-based policy and programmatic recommendations. The Working Paper is rounded off by a list of references and supporting appendices.

## LITERATURE REVIEW

This is an age of information, and, globally, one of research. Cities and adolescence are big subjects with large numbers of publications on both. We are interested in their intersection. The sub-sections below look at the literature on urban open spaces, play and playfulness, and adolescence and public spaces. The next sub-sections overview the situation of urban children in developing countries and in Pakistan and provide a review of the concepts of child-friendly-cities and -spaces and their critiques.

## Context and Definition of Urban Open Spaces

The world is undergoing the largest wave of urban growth in history. From 2008, for the first time in history, more than half of the world's population has started living in towns and cities. By 2030 this number will swell to almost 5 billion, with urban growth concentrated in Africa and Asia (UNFPA, 2007). The world is increasingly a planet of cities (Angel, 2012, a).

Cities typically contain or disturb vast quantities of open spaces, on average equal to their built-up area (Angel et al, 2012, b). Urban landscapes are fragmented by sprawl, leapfrog, and speculative developments, while municipal boundaries often extend out to open land, such as burrow areas and dumps. As distinct from merely vacant land, an urban open space is a premium natural and cultural resource. The term has been applied to a range of spaces, including parks, green vegetated spaces and wetlands but also to squares, paved roads, hard landscape areas, open market places, and so on (Sivam et al, 2012). Public open spaces are also perceived as places of power, exemplified by phrases such as 'mean streets', 'turf wars', and so on. In particular, central squares and parks are

markers of national image and identity and places where democracy may be worked out (Kaymaz, 2013). Even those scholars that dissent from the view that urban public spaces are sites for political formations recognize that they are important sites for civic becoming (Amin, 2006).

It may be helpful to review the definitions of urban open spaces. One is, “Land and/or water area with its surface open to the sky, consciously acquired or publicly regulated to serve conservation and urban shaping function in addition to providing recreational opportunities” (Marilyn, 1975). However, some open spaces such as campuses and gardens are not publicly regulated. Roads and car parks are explicitly excluded in some definitions, while only the area under cars in others (Gold, 1980). Shouldn't the third dimension be incorporated in the definition of a space? In fact, Tenakel (1963) had proposed that the space over, and light falling on, an area should be included in the definition of urban open space. Even if such matters are resolved, binary physical definitions address one aspect of urban open spaces.<sup>1</sup>

There is also the legal perspective. Four categories have been proposed based on ownership and effective control, consisting of private, semi-private, semi-public, and public open spaces (Newman, 1972). Private open spaces include gardens attached to homes, for example. Semi-private spaces, like courtyards and communal gardens, may only be used by particular people, and the ordinary public is generally not welcome. Semi-public spaces, like school playgrounds, are open to categories of users, or like gated parks, to the public at limited times with or without charges. Public parks, plazas and squares, and verges and footpaths are open to all pedestrians, most hours on most days. Perceptions and feelings of inclusion and exclusion are as important as de jure access defined in bylaws.

Geographers and town planners have developed systems to describe the scale of functions and patterns of land uses in cities. As a part of the application of such systems, hierarchies of open spaces have been designated by city governments and departments. The Department of Town and Country Planning, Malaysia (LandArchy, Malaysia, n.d), for instance, has a hierarchy ranging from domestic yard, corner to-lot, Playground, Neighborhood Park, Sector/Locality Park, to Civic/City Park. In the scheme, Regional and National Parks serve a number of cities. Other classifications are used elsewhere.<sup>2</sup> Some scholars critique the process of professionals imposing classifications, and the validity of the results.<sup>3</sup>

Woolley (2005) has suggested a typology from the user's point of view comprising three groups of urban open spaces –domestic, neighborhood, and civic–based upon the concept of the home range. She asserts that this classification is useful because it corresponds to three levels of social experiences - of familiarity, sociability, and anonymity - commonly encountered in them. There are a number of such user based typologies.<sup>4</sup>

## Benefits of Urban Open Spaces

Scholars agree that urban open spaces are highly valuable for their contribution to the quality of life in cities (Burgess et al 1988, Madanipour 1999), even in the electronically networked 21<sup>st</sup> Century (Thompson 2002). A

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<sup>1</sup> In a technical advance, Kim and Wentz (2011) describe a methodology for re-examining the definition of urban open spaces using Fuzzy Set theory. Values between zero and one are ascribed to the four key parameters of ownership, lot size, imperviousness, and greenness to generate a composite map of openness. Such planning tools may enable more accurate decisions on storm water management and recharge in arid climates, for example. It is to be determined whether such tools are of use in fostering more cohesive neighborhoods and land use decision making in general.

<sup>2</sup> Another definition used by the London Metropolitan Council comprises: Small Local Park, Local Park, District Park, Metropolitan Park, Regional Park, and Linear Open Space (Llewelyn-Davies Planning, 1992). Marcus and Francis (1998) provide design guidelines for 1) Urban Plazas, 2) Neighborhood Parks, 3) Mini and Vest-Pocket Parks, 4) Campus Outdoor Spaces 5) Outdoor Spaces for the Elderly, 6) Childcare Outdoor Spaces, and 7) Hospital Outdoor Spaces.

<sup>3</sup> Morgan (1991) argues that the hierarchical approach to the provision of urban open space fails to recognize the potential of smaller open spaces to provide a variety of experiences to different users, and that people want to use open spaces close to their homes.

<sup>4</sup> Gehl (1987) has suggested that public arenas vary depending on whether they enable (afford) necessary functions, such as the journey to work or school; optional functions, such individual exercise; or social activities for two or more people. Walzer (quoted in Woolley, 2005) has defined public space as space we share with strangers, people who aren't our relatives, friends, or work associates. It is a space for politics, religion, commerce, sport; a space for co-existence and impersonal encounter. Its character expresses and also conditions our public life, civic culture, and everyday discourse. Walzer goes on to describe two types of public space: single-minded space and open-minded space. Single-minded space is planned, designed and built, and used with one activity in mind. Such spaces are organized more for travelling through than for socializing within, and users are often observed hurrying through them, avoiding meetings not actively sought (Bauman, 1993). Squares and plazas are examples of open-minded space. They are mixed use places that generate less hurried activities; watching, walking, talking, eating lunch, discussing politics and world affairs, for example.

systematic review of the benefits of urban parks has been conducted by the International Federation of Parks and Recreation Administration (IFPRA). It comprised meta-analysis of 225 peer reviewed scientific publications since 2000 (Konijnendijk et al 2013). There is strong to moderate scientific evidence that urban parks contribute to biodiversity, higher property prices, human and social wellbeing (increased activity, reduced obesity), and local cooling relative to the built-environment. Parks have also been recognized as contributors to the social, physical, and aesthetic quality of urban areas in general and urban neighborhoods in particular (Walker, 2004). In addition to physical activity, parks offer opportunities in the urban landscape for the enjoyment of nature, social interaction, and escape (Hayward and Weitzer, 1984, McCormack et al, 2010). Social interaction itself is recognized as important both for relaxation and environmental conservation (Galion & Eisner, 1994). A large urban park may be the only place for women to go and be [themselves] in a city (Krenichyn, 2006). These opportunities are essential for the growth and development of young children and adolescents. Children's play, separated from the adults' cultural and social setup, is an important activity that takes place in parks. It helps children to come closer to the adult world and develops their identity (Noschis, 1992). Duzenli et al (2010) further suggest that key psycho-social needs of adolescents are met by introducing them to activities that can only be carried out in open spaces or parks.

## **Play and its Role in Individual and Social Development**

Play is defined as intrinsically motivated, spontaneous, and rewarding activity with the performance as a goal in itself. Play, especially the elaborate play of primates, was long considered a puzzling anomaly in the behavior of mammals, since it consumes large amounts of energy yet almost by definition seems to have no instrumental goal (Parker, 1984). Research in neurobiology and ethology supports the hypotheses that play is crucial to human cognitive development, creativity, innovation (Bateson and Martin, 2013), and for cultural change (Wexler, 2006, 131-135). Taking children outdoors heightens their opportunities for play, though not all play occurs outdoors and some outdoor games are serious activities. Bateson asserts that interventions that provide children with greater opportunities for play make them more creative. Conversely, and worryingly, fears about safety and the pressures of school curricula are reducing opportunities for free play. Given the importance of play in child development, he urges those involved in education to take note (Bateson, 2014). Non-aggressive playfulness is crucial to creativity, the generation of novel behavior and ideas, and to innovation; the implementation of these novelties.

## **Adolescence and Public Spaces**

Adolescence is a transitional phase when attitudes are consolidated, skills are acquired, health behaviors are formed, and life courses are charted (Brady, 2003). Bartlett et al (1999) note that adolescence is a period of rapid growth and development in a few short years of puberty, earlier for girls than for boys, and a time of intense psychological activity. The acute self-awareness can be a source of positive growth, but can also cause retreat into isolation. Many young males take refuge in the security of peer group allegiance and in behaviors that are challenging for their families and others. For many a girl, adolescence may mean a new isolation. She may be required to stay close to home, out of the public eye, and her opportunities in life may be more constrained than before. The challenges for children in poverty are frequently compounded for girls owing to systematic discrimination. For example, two-thirds of the world's children not in school are girls. Although official figures show more boys at work than girls, the daily work burden of girls is commonly far greater than that for boys. Many girls are involved in undocumented hidden occupations, such as domestic service, working long arduous hours for little or no pay (Ibid, pages 33-34).

There are many studies on youth gone bad or youth resistance (Skelton and Valentine, eds. 1998). Other prominent streams of multidisciplinary research have addressed the issues of children's inactivity and obesity, women and mobility (Hanson, 2010), children as a disadvantaged group in society (Malone and Hasluck, 1998), and parental concerns in selecting play spaces for their children (Sallis et al, 1997). Two recent books, *Creating Child Friendly Cities* (Gleeson and Sipe, 2006) and *Children and their Urban Environment* (Freeman and Tranter, 2011), provide systematic discussions of the relevant issues. However, these studies are from the perspective of developed Western cities and that limits their relevance to the Pakistani context.

### Box 1: Key Quotes from Literature Review

“Urbanization is often associated with greater independence for women. This is the result of better opportunities than in rural area...Yet, most urban women experience profound disadvantages compared to men in their daily lives”, Tacoli and Satterthwaite, 2013.

With reference to the quite unequal experiences of the local environment of stigmatized young people living in the deprived urban areas and council estates [of Scotland] facing tense and problematic relations with older children and adults, compared to young people in rural or non-deprived urban areas, Day and Wager (2010) write, “The inequalities matter because they have lasting effects on children and young people’s development.”

“The presence of children playing in the street can be seen as the litmus test of community cohesiveness in a neighborhood”, Tim Gill 2007, p7.

“Young people’s growth and development depends upon environments that provide stimulation, allow autonomy, offer possibilities for exploration, and promote independent learning and peer group socializing. These criteria are important in all settings, not just those designed specifically for teens such as schools, leisure environments, and teen centers”, Cindi Katz, 1997.

In *Beyond Recreation: A Broader View of Urban Parks*, Turner demonstrates how open spaces, playgrounds, sports fields, and recreational programs offer high quality opportunities for adolescents to build their skills and strengths that can help them to lead rewarding lives (Turner, 2004). Community-based programs that are fun can help kids acquire physical, intellectual, emotional, and social skills. She argues that personal and social asset development programs based at urban parks need to be more inclusive, to reach all youth, not just those with special needs.

## Situation in Developing Countries

In developing countries, there has been a decline in the quality and quantity of urban open spaces in the last three to four decades owing to globalization, uneven national economic development, the spread of conurbations, and city growth and urbanization. Kaymaz (2013) argues that both natural and cultural landscapes are under pressure in and around urban settlements, and their deterioration raises concerns about the image and identity of the city. For example, the growth of shopping malls (in Ankara) is one of the reasons for the decline in use of public spaces. But public spaces are crucial parts of the city supporting social integration and cohesion and bringing different social, ethnic, and economic groups together. Similarly, Oduwaye (2013) finds that because of globalization and privatization, the land use in Lagos has changed significantly, with a decline in public land use and a tremendous increase in commercial land use. Karaman (2008) reports that the efforts to transform Istanbul into a ‘world city’, comprising mega-projects and the re-development of informal housing areas, entails the privatization of publicly owned shorelines. It is, in any case, difficult to find parks and playgrounds in and around dense residential areas and squatter settlements. In these localities children roam the streets, encountering adverse social situations. In many urban areas children are under threat of trafficking, violence, and pollution (Dewi, 2010). Because of these social issues, adolescent girls are often invisible in urban open spaces. For the well-being of their daughters, parents restrict their outside mobility and confine them to their homes. They need continued parental guidance, and perhaps it may not always be available.

There is relatively less research on children’s play in the urban environment in Third World cities and towns compared to the Western world. Rather, the focus has been on other important issues facing children in low material resource situations. This may be illustrated by an overview of research publications in a relevant journal. *Environment and Urbanization* is a leading journal for scholarly case studies by researchers based in and/or reporting on the cities of developing countries. It published a special edition on ‘Children and the Environment’ in 1990, addressing issues such as the employment of minors, street children, children’s health, as well as children’s play. Subsequent volumes have had case studies on schools for street children (1991), participatory action research with urban poor children (1997), a status report on the GUIC program by Louise Chawla (1997), a note on the international secretariat for Child-Friendly Cities Initiative (2000), and the demonization of the large youth populations of low- and middle-income countries as a self-fulfilling prophecy (2011), among others. However, apart from

sections in the 1990 special volume, and the 1999 article by Bartlett, there is little mention of children's play in the articles published in the journal. It is a research gap that needs to be addressed.

## Situation in Pakistan

In Pakistan, it is often perceived that urban open spaces have dwindled in the last few decades due to city growth and urbanization; that the law and order situation and security concerns are deterring parents from allowing their children to play outside; and that as a result, children especially girls, engage in indoor activities most of their time out of school. Concurrently, it is often argued that the access of adolescent girls to urban open spaces has been restricted by 'regressive cultural trends'. The limited access of adolescent girls to urban open spaces is widely observed, but it has not been scientifically studied and documented in Pakistan. We have made direct requests to relevant departments in Universities across Pakistan in addition to web searches, but have been able to find only four broadly relevant publications on the users and benefits of urban parks (Himayatullah, 2006, Hussain et al, 2010, Saleem and Kamboh, 2013 and Saleem, 2014). One of the studies looks at the roles of age, gender, and education in the stated reasons for park use (Saleem and Kamboh, *ibid*), but none addresses the impediments faced by adolescent girls in accessing public parks.

## Concept of Child Friendly Cities (CFC)

The CFC concept comes from an inter-disciplinary UNESCO research program to look at "the way small groups of young adolescents use and value their spatial environment" (Lynch, 1977).<sup>7</sup> It evolved into the Growing up in Cities (GUIC) program that has been described as "an international effort to understand young people's own perspectives on the urban environment" (Chawla and Malone, 2003). Lynch was specifically interested in children's use of "un-programmed" space, comprising local streets, courtyards, and staircases where children would meet and play informal games. It is the right of every child to be provided for and protected as a part of an urban community in which she/he lives. Lynch further premised that the best environment for children is a city that provides similar opportunities for all children to learn about and explore their environment. As stated by UNICEF, the CFC treats every child as a citizen, and identifies his/her role in family as well as social life.

Subsequent research in the 1980s on how the environment affected the mental and social development of urban children resulted in two important observations in relation to children's safety and mobility: first, urban spaces with poor physical accessibility had fewer spontaneous activities than areas with high accessibility; second, that children sought out unplanned play spaces where they were free to explore the area and invent their own activities (Berg and Medrich, 1980). These findings were consistent with earlier research by Lynch.

A follow up UNESCO research project (1994-2003) led by Louise Chawla confirmed Lynch's key finding that, beyond a generally acceptable level of health and welfare, increased material prosperity does not seem to affect children's sense of satisfaction with their environments. Children were most satisfied with environments where they were accepted as participants in a vibrant cultural framework and were relatively free to move around in a protected space (Chawla, 2002). She concludes that the development model of increased industrialization and global integration may not be adequate to children's needs. Equal concern should go into preserving social capital, by maintaining a valued role for children, increasing the importance of the rituals of cultural identity, and supporting community self-help efforts.

## Other Perspectives on Cities and Youth

For a more rounded appreciation of the issues of cities and youth, in this sub-section we review a selection of the literature on environmental design for crime prevention, some examples of youth creativity in situations of urban distress, and the impact of economic changes associated with globalization on youth. We also look more generally at the literature on Class and Gender in Cities, and the use of urban open spaces by women and ethnic minorities. We will close with a recall of what children state they want from cities.

Architect Oscar Newman has propagated the Defensible Space (DS) concept in the USA. His key finding is that building height and the dwelling units per entry are the next strongest predictors of crime after percentage families receiving welfare. The more anonymous the housing environment the more difficult it is for a code of socially appropriate behavior to become established among the residents. Criminals find it easy to commit robberies in the unsupervised circulation areas of large low-income multi-family buildings – lobbies, hallways, stairs, and

elevators. Low rise housing is safer because it has less unsupervised semi-public space around it. His approach is to re-structure the physical layout of communities to allow residents to control the areas around their homes to reduce crime. He favors the creation of mini-neighborhoods comprising closed-end streets from which through traffic is eliminated. He has demonstrated the practical feasibility of creating mini-neighborhoods via consultative civic processes in several city districts, and claims that it works to reduce crime in White, African-American, and mixed communities. He further claims that street closure is cost-effective at around US\$10,000 per gate serving 30-40 households. He admits to certain limitations including a minimum of 40% existing home ownership, the predominance of single family dwelling units, and quality local schools (Newman, 1996).

While conceding a relationship between the built-environment and opportunistic (criminal) behavior, there remains considerable skepticism among criminologists about the particular space-crime relationships postulated by Newman (Bottoms, 1974). The Defensible Space (DS) concept has been subsumed within Place-Based Crime Prevention Theory in recent discourse (Marzbali et al, 2011). Its operational arm, Crime Prevention through Environmental Design (CPTED) lays equal emphasis on surveillance, boundary definition, and access control as the DS concept, but less on engaging the sense of territoriality of residents. CPTED interventions can range in scale from city-wide (promoting mixed land use zoning for diverse 24/7 activities in the city-center) to the micro (target hardening within a residential block, for example).

Some scholars have studied the creative designs of youth organizations for survival and change in the city. For example, Myrna Breitbart (1997) has documented neighborhood revival projects in three decaying cities of the USA. She notes that while youth cultural and environmental projects cannot eradicate or fill the gaps left by missing social and economic resources, or a political environment that condemns young people for hardships beyond their control, they can, however, play a critical survival role by increasing the safe spaces within which urban youth can explore the sources of local problems and envision, and sometimes create, alternatives. The actual physical products of these young people's efforts—the greenhouses, community gardens, murals, designs, and banners—were envisioned or placed in public spaces that have meaning for youth. Ideas were put out for others in the neighborhood, and beyond, to draw strength from. As such, they provide a stark contrast between what *is* currently in place and what *could* be there instead (emphasis in original).

There is no getting away from the politics of open space. Breitbart (ibid) adds, “Whereas one might assume that the public space of the city is freely open to all inhabitants, the reality of privately provisioned public spaces such as corporate plazas and small parks is that a considerable amount of control is exercised over who may occupy those spaces and how they may be used by privately hired security forces. Trends towards the increased privatization of public space, as well as efforts to revitalize and gentrify key areas of the central city, have thus generated numerous struggles over the definitions of, and public access to, urban space.”

Other scholars have been more critical of the impact of global economic restructuring and other forces of globalization on the everyday environments of young people. Cindi Katz (1997) argues that globalization of production and consumption, including cultural products, has led to a transnational burgeoning of desire, while the unprecedented possibilities for communication means that global simultaneity is taken for granted. As a result of these “disintegrating developments”, a systematic disruption of social reproduction is taking place in diverse local settings. Young people are not receiving the knowledge and skills necessary for the world in which they will come of age.

The Marxist critique goes further. It seeks to demonstrate that cities and urbanization have always been class phenomena, extracting surplus from somebody, somewhere. Henri Lefebvre (1968) contributed to the rights debate from this perspective. In *The Right to the City*, David Harvey (2008) paraphrases Lefebvre as follows, “The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.”

Gender Studies provide another important perspective for our research topic. There is a large stream of literature on the City from the gender perspective, ranging from radical feminist critiques, to scholarly articles by feminist geographers. The former find the city thoroughly characterized by male structures and pervaded by male practices, such that women have been kept on the margins and rendered invisible in a male-dominated environment. Most of the scholarly de-constructions also maintain that the urban environment perpetuates male dominance and

female subordination (Jarvis, 2009; Massey, 1994; Parsons, 2003; Weisman, 1994; Wilson, 1992), but Wilson also notes women often appear less daunted by city life than men. For example, compared to male novelists, modernist women writers such as Virginia Woolf have responded to the modern metropolis with joy and affirmation (quoted in Massey, *ibid*, page 171).

There are a number of studies specifically on gender and the recreational use of urban open spaces. Women's access to, and the use of, parks has improved or even achieved parity in some countries. In Germany, Harth (2006) found that outdoor behaviour showed similar changes to those occurring in gender relations as a whole. Girls and women (except women of Turkish origin) are increasingly gaining access to "male" open spaces and modes of conduct. One study in the eastern USA found that, although women were more likely than men to evaluate some park characteristics as "important," there were no significant gender differences or variation in the types of visits or the perceived benefits of parks. There was significant ethnic variation in preferred park attributes, frequency and type of visits, and perceptions of the positive and negative effects of parks. However, the effects of ethnicity were not found to differ for men and women (Ho et al, 2005). These results may be seen as an 'aspiration-horizon' for those seeking gender-balanced development in much of the rest of the World.

Ethnicity and the use of urban open space is a topic of considerable research interest in the USA (Loukaitou-Sideris, 1995), with some studies in the UK and other countries. Worpole and Greenhalgh (1995) found that ethnic minorities use parks in family and friendship groups. Woolley and Amin (1999) reported that 71% of Pakistani-origin teenagers in Sheffield, UK, visited an urban open space on a daily basis, with the majority of the visits (56%) to a local park. They note that Asian women value open spaces as somewhere to sit down in the quiet or just to be outdoors.

We will conclude the sub-section with what children have to say. *Children's Manifesto*, Bologna, 1994 drafted by children, reads, "Children want gathering places close to home, streets where cars go slowly, community-managed open spaces with multiple uses. Children want green spaces with natural elements (trees, bushes, and tall grass) and lots of water but no play structures. In school, they want courtyards for playing and meeting friends, for planting gardens. Children want streets with bike lanes, quiet no-traffic zones, no cars on footpaths, and accessible public transport. They want to be informed and listened to, and want to take part in decisions that affect them."

## Concept of Child-Friendly-Space (CFS)

As apparent from the above, many variables – physical and symbolic, current and potential – can be used to assess the quality of urban open spaces. Initially however, architects and urban planners proposed five rather tangible parameters for the assessment of parks and playgrounds (Moore et al, 1992):

**Security:** from all types of disturbances including crime, accidents, trafficking, and so on. Distance from settlements, visibility for parental supervision, and distance to the center of activities can also be assessed as elements of this dimension.

**Safety:** means that no harm should come to children in the playgrounds. Safety indicators include distance from vehicles passing by, eliminating wires and sharp boundaries, controlling the steepness or curvature of the grounds, and removing play materials which pose any risks to the children.

**Leisure:** parks/playgrounds must have a comfortable environment, with ample supply of sitting places, garbage bins, shady trees, and free from strewn garbage. No multiple uses, such as parking or waste disposal, are recommended.

**Accessibility:** indicates the level of service and the accessibility of the playground from any side where it is not fenced by a high wall/barrier. The routes to it are signposted. There is no severance; meaning entry and exit are not restricted by the location of the open space along river, sewer, or across a highway and so on.

**Provision for Physical Activity:** means the space should support playing activities so children can find new things to explore and have pleasant feelings.

Three more parameters have been added subsequently. They are:

**Environment:** No strewn garbage, no open burning of wastes, no discharge of raw effluents into streams or other receiving water bodies.

**Ecology:** Amelioration of micro-climate and peak storm run-offs, enhancement of local biodiversity, no alien invasive species.

**Educational:** Fun and learning opportunities, especially materials that can be manipulated by children (so-called loose or malleable materials).

## Critiques of the CFS Concept

There is considerable critique of this concept with its focus on security and safety. It is claimed that supervision restricts children from doing what they want to do, and that nullifies the atmosphere of the park. The no-risk approach makes play boring and generates other, more real, risks from a sedentary lifestyle, for example. Matthews (1994) has termed parks and playgrounds as ghettos for children.

The alternative concepts include “boundless playgrounds” that cater to the needs of children of all abilities (Kellogg Foundation) and adventure playgrounds with safe risks or thrills. Parks are also seen as partners in youth development, offering high quality opportunities for children to build the skills and strengths they need to lead full and rewarding lives (Urban Institute/Wallace Foundation). Environmental campaigners say children actually prefer playing in community gardens, where they can grow vegetables and flowers. Other activists say children should be allowed to play freely in markets and shopping malls. They note the exclusion of youth, under the “neo-liberal” agenda, from consumer oriented spaces under the pretext of “anti-social behavior” (Iveson, 2006) and the displacement of skateboard rinks to peripheral locations by city planners away from areas where they could disturb the elderly and others.

The growing application of ‘disciplinary architecture’ in city squares and parks across the world is another feature to take note of, whether for good or bad. Many may readily agree that fencing to reduce the risk of children running on to the road is a good thing, while gating a public park to exclude the urban poor is a bad thing. But other forms of disciplinary architecture are more subtle (Jaffe, 2014) and judgments on them more challenging. Park benches with sloping planks and arm rests or seat separators to prevent homeless persons from sleeping on them are examples. A good rule for the designers is to imagine themselves as the targets of the intervention; a better one is to consult with all the stakeholders.

Physical and social aspects must be taken together. The World Health Organization (WHO) has developed a definition of “safe and supportive spaces for adolescent girls”. Safety is defined as absence of trauma, excessive stress, violence, or fear of violence or abuse. Supportive is defined as positive and close relationships with family, other adults and peers. Based on field experiences with Safe Spaces to Learn, Play, and Grow in several developing countries, including those with Muslim majority populations, Martha Brady (op cit) proposes four key dimensions of such space: 1) Girls have safe physical mobility and access to it, 2) It is available at times compatible with the girls’ time use and workload, 3) Parents, community leaders, and boys have supportive and respectful perspectives on the girls use of the space, and 4) It is aligned with the girls own aspirations and expectations. The guiding principles of the program include offering the girls trusted female mentors and role models, and protecting their safety, reputations, and marriageability.

In contrast to the rather static CFS concept, there is the view that parks are dynamic systems, and that change is the only given. They can change to become ‘crime hotspots’. Police tend to classify parks on the basis of their ‘crime history’, for example. Parks can be revitalized. Hilborn (2009) describes a four stage model of a cycle of decline and renewal comprising 1) Onset of Disorder 2) Diversification 3) Risk and Danger, and 4) Assuming Guardianship. Onset comprises visible signs that nobody cares, such as litter, graffiti, and vandalism. Diversification is associated with a decline in legitimate uses, and an escalation of crime and disorder, usually ending with a high profile ‘tipping point’ incident. The risk and danger stage is reached when people’s perceptions, or *sense of place*, change from feelings of attachment and belonging to negative emotions such as unease and fear. The park usage decreases. While there may be hot spots of criminal and antisocial activity, the perception of risk will often exceed the actual level of crime and risk in the park as a whole. People’s perceptions of crime, and the associated fear, will not only prevent them from using parks, but also the negative sense of place can accelerate the *speed* of the park’s abandonment as well. In Stage 4, the police and park management take back control of the park. This involves (1)

reestablishing guardianship and (2) actively recruiting legitimate users to lessen the park's vulnerability to crime. This model can help the police and urban planners to assess a park and provide the correct responses at each stage.

Hilborn (ibid) further argues that 'natural guardians' are the key to helping ensure park safety. They are just ordinary citizens going about their daily routines in the park. Their presence serves as a reminder to potential offenders that someone is watching. The guardian's behavior also communicates that antisocial behavior is unacceptable. Potential offenders know that such guardians are ready to involve the park wardens or police, if necessary. A local guardian can be anyone who values and uses the park, and who decides to take on the responsibility of safeguarding it. Police do not have the resources or time to provide the intensive guardianship needed. A more feasible arrangement is to encourage and educate local guardians how to "protect" a park and keep it safe for vulnerable segments of population, such as young children, adolescent girls, and the elderly.

There is a separate stream of research on bullying and abuse, mostly in schools. Some scholars have also studied bullying at the urban neighborhood scale (Percy-Smith and Matthews, 2001). Bullying is defined as deliberately hurtful behavior, often repeated over a period of time, and difficult for those being bullied to defend against. A more general definition is aggressive systematic abuse of power. While cautioning that bullying is a social phenomenon, Percy-Smith and Matthews (ibid) have explored its spatial dimensions. They found bullying more common in their high density inner city area than in their suburban research site. The highest incidence of bullying was in the local streets of the inner city area followed by parks in the suburb.

A number of countries have Child Right to Security Programs or Child Assault Prevention Projects. Their common theme is that "Bullying and abuse in all forms are not acceptable and should not be tolerated". In the UK, Kidscape is a NGO working since 1985 on the "child right to be safe". Its key finding is that those who bully are more likely to have been bullied themselves. Its approach entails 1) getting children to discuss their feelings and anxieties with friends and trusted adults, 2) teaching children how to protect themselves, and 3) peer-mediation projects, where children are encouraged to become peace makers ([www.kidscape.org.uk](http://www.kidscape.org.uk)).

## Summing Up the Review

The section has described the recent trans-disciplinary, contextual, and applied literature. We have covered the subject at city-and open space-scales from different perspectives, and sought to make a balanced presentation of a wide ranging literature. It is not a comprehensive or exhaustive review. Indeed we are aware of huge gaps, such as research not reported in English. Furthermore, new research is emerging on a regular basis. But what is clear is that there is sufficient evidence on the importance of urban open spaces, particularly parks and playgrounds, as high opportunity places for youth development. There is also a world of experiences that Pakistan can draw upon to improve the access and use of urban parks and schoolyards by adolescent girls. We present an analysis of the implications in the section on Research Findings.

## RESEARCH METHODOLOGY

This section sets out the objectives of the research, the basic questions asked, and the research design. It presents the research tools and their applications. It describes and compares the Case Study localities, and it presents the process of drawing samples, conducting participatory research, and making field observations.

### Research Objective, Outputs, and Basic Questions

The research has one objective, which entails several outputs, for which some basic questions need to be addressed. The research objective is:

- To contribute to the identification of practically feasible and cost-effective policies and measures, model programs, plans, and designs that facilitate healthy and socially rewarding outdoor physical activities among adolescent urban girls.

The supporting activities are:

- Reviewing the trends (global, national, and local) in the availability of urban open spaces;
- Researching the benefits of urban open spaces, especially their roles in the development of youth;

- Establishing the relationships between types of urban open spaces, and their use, by age-groups of adolescent girls;
- Identifying and cross-checking impediments to the use of urban open space by adolescent girls;
- Preparing model plans and designs for gender-sensitive urban open spaces;
- Investigating and ranking girls' preferences for facilities and priorities for outdoor physical activities; and
- Developing a suite of possible policies and programs for AGFS.

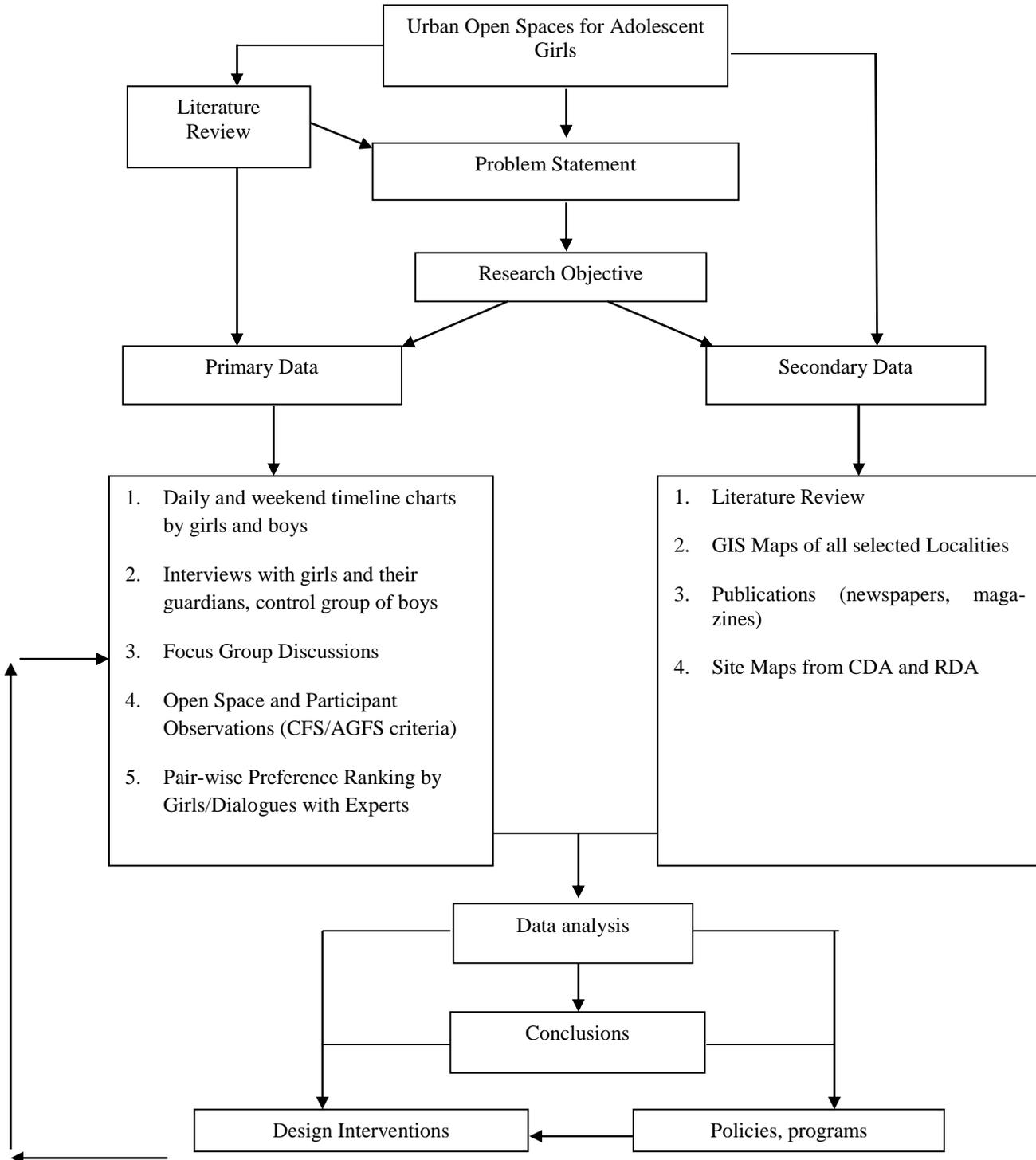
The basic questions that can help achieve outputs from the above activities are:

1. What are the ranges and licenses for outdoor activities currently permitted to adolescent Pakistani girls compared to boys of the same ages?
2. Which factors impede the access of secondary school age girls to urban open spaces?
3. What do adolescent girls want in parks and schoolyards?
4. What features enable fun and learning opportunities in parks and playgrounds? And
5. Are there, or is it possible to make available, urban open spaces for teenage girls within the permitted, or could be permitted, ranges and licenses?

## Research Design

The research design for the study aims at answering the basic questions at hand through participant observation in city and local parks, activity charts made by groups of girls and boys, the triangulation of the interview responses of girls, boys, and their guardians, and the pair-wise preference ranking of features in parks and schoolyards by girls before and after exposure to the design options developed by planning professionals. The Flow Chart in Fig. 1 shows the sequence of steps involved in the research.

**Figure 1: Flow Chart of the Research Design**



## Research Tools and their Applications

The literature reviewed included recent books and relevant titles from interdisciplinary journals, including *Children's Geographies*, *Environment and Urbanization*, *Gender and Education*, *Health & Place*, *Journal of Environmental Psychology*, *Local Environment*, *Landscape and Urban Planning*, *Procedia: Social and Behavioral Sciences*, and *Urban Studies*. These and other relevant publications have been web-searched using keywords, such as urban open spaces, spaces for adolescent girls, parks role in youth development and so on.

The primary data collection tools include case studies (CS), group work by adolescent girls and boys for developing activity charts, semi-structured interviews (SSI) as well as focus group discussions (FGD) with girls, boys, and their guardians in planned and unplanned localities. In addition, city parks have been assessed using CFS/AGFS criteria. Environmental designs have been developed for two schoolyards, two local parks, and a section of a city park. The preferences of groups of adolescent girls living in nearby localities have been obtained before and after exposure to the design options. A Stakeholder Conference has been conducted with secondary schoolchildren taking the lead in proposal development under the guidance of trained facilitators. Corporate leaders, city managers and town planners, education officials, and other researchers have been consulted to explore the practical feasibility and cost-effectiveness of various policy and program options. The use of these tools in the study is described in the sub-sections below.

### Case Studies

Two locations have been selected in Islamabad, and two in Rawalpindi, to represent planned and unplanned localities of the twin cities. The maps of all four localities are attached at Appendix-A.

#### City of Islamabad

1. Sector G-7, Islamabad (squatter settlements in a planned sector)
2. Sector G-8, Islamabad (a planned sector with squatter settlements)

#### City of Rawalpindi

3. Rehmatabad (Gharibabad)/Afzal Town, Rawalpindi (an upgraded squatter settlement)
4. Block-B, Satellite Town, Rawalpindi (a planned sector)

### SECTOR G-7, ISLAMABAD

It is one of the oldest sectors of Islamabad, planned in detail by M/s Doxiadis, and developed in the 1960s. The headquarters of the Capital Development Authority (CDA) and Inter-Services Intelligence (ISI) are located here, along with that of the ZaraiTaraqiatti Bank Limited (formerly Agriculture Development Bank). The Fire Station, Information Services Academy, government offices, and corporate establishments are also located along the southern arterial road of the sector, while hospitals are located at the rear of the ISI complex. Daewoo bus terminal, car repair shops, and cheap hotels occupy Sitara Market in the center of G-7/1. The perimeters of the ISI Complex have been recently expanded, and an arterial road (the 7<sup>th</sup> Avenue) inserted between G-6 and G-7 Sectors. These changes have reduced and cut off the parks, open spaces, and green verges in the sector.

The study interviewed girls and boys in two state secondary schools located in sub-sector G-7/1. Both the schools have ample grounds with grass and mud areas. Two of the oldest squatter settlements (Katchi Abadies) of Islamabad, commonly known as Tent Colony and Shoppers Colony (with walls made from used plastic shopping bags), are located in the sub-sector. There are two other squatter settlements in the adjacent sub-sectors, 66 Quarters in G-7/2 and 48 Quarters in G-7/3-2, that have sprung up around housing units constructed by the CDA for its street cleaning staff. The state schools, which charge no fees, cater to the children of the Sector, including those from the squatter settlements. Around 15-20% of their enrolment comes from the squatter settlements.

### SECTOR G-8, ISLAMABAD

Sector G-8 was developed in the 1980s. One-quarter of the sector is occupied by the Pakistan Institute of Medical Sciences (PIMS) complex. The other sub-sectors have detached and semi-detached individual houses constructed by middle and upper-middle income groups, along with apartments for the officers and staff of the Pakistan Telephone Corporation Limited (PTCL). However, there are large squatter settlements along its ravines called Maskeen Colony and Hansa Colony. Students were interviewed at two state secondary schools in Sub-sector G-8/4. Both schools

have lots of space, rather well tended gardens, and vegetable patches. Most the girls and boys interviewed come from the PTCL Colony and PIMS staff quarters, along with some students from the squatter settlements.

### REHMATABAD AND AFZAL TOWN, RAWALPINDI

Rehmatabad is an upgraded squatter settlement located at the fringe of Chaklala Cantonment Board and to the south of the international airport. It was previously known as Gharibabad (Poor Town), a land parcel under brick kilns and left with deep pits and deranged drainage that was occupied by casual laborers. Because of its proximity to high value facilities and VIP routes, it was regularized and re-named as Rehmatabad (God's Grace) in the 1980s. The adjacent Afzal Town emerged by land sub-dividing among the retired staff of the Chaklala Cantonment Board.

The study interviewed the girls and boys of two private schools in Afzal Town that charged fees in the range of Rs.600 to Rs.2000 per month in 2013. The schools cater to middle income groups. They include business families that have migrated from Karachi after the troubles there. Neither school has outdoor spaces except for small entry and exit areas.

### SATELLITE TOWN, RAWALPINDI

Satellite Town was developed as an upper and middle income residential suburb on the then northern fringe of Rawalpindi in the 1950s. With the further spread of Rawalpindi, and the development of Islamabad to the north, Satellite Town is now in the center of the built up area of the twin cities. The Holy Family Hospital, a regional healthcare facility, is located there. Notable educational institutions include Rawalpindi Medical College, Punjab College of Commerce, and the Board of Intermediate and Secondary Education. The houses along its main roads have been largely converted to schools, colleges, and other commercial establishments.

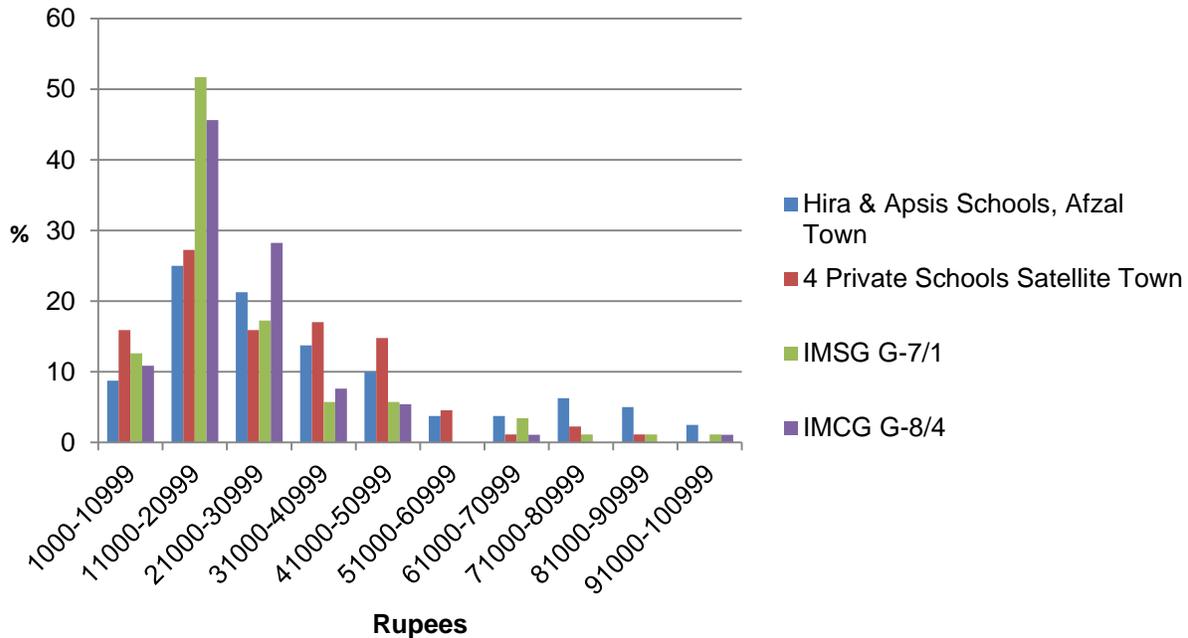
The study interviewed the girls and boys of four private schools of Block-B, Satellite Town, along with their parents and teachers. The schools charged fees in the range of Rs.250 to Rs.800 and above per month in 2013. They cater to low and middle income groups. All four schools have little outdoor space.

### COMPARISON OF THE FOUR CASE STUDY LOCALITIES

The research design sought diversity in settlement types and households across Islamabad and Rawalpindi. Sectors G-7 and G-8 in Islamabad have abundant local parks and their state schools have ample schoolyards. Satellite Town, Rawalpindi has adequate local parks compared to Afzal Town and Rehmatabad, which have virtually no communal open spaces. The private sector schools in both the Rawalpindi localities are housed in residential units and have virtually no outdoor play areas.

Fig.2 shows the household income distribution reported by the respondent girls from the selected schools. The respondents represent a range of household types by income class. They include, among others, relatively well-off business families in Afzal Town, poor households that send their children to low-fee private schools in Satellite Town, and people living in squatter settlements and staff colonies, who send their children to state schools that charge no fees in Sectors G-7 and G-8 in Islamabad.

**Figure 2: Household Income Distribution reported by Girls (2013)**



## Daily and Weekend Activity Charts

Eight to twelve volunteers were solicited for group work on activity mapping from among the girls and boys in age-relevant classes in the schools/colleges located in the above localities. The techniques of Participatory Learning & Action (PLA) were used to ensure that the outputs reflected their common pattern of activities and were comparable across groups. Each cohort was asked to describe its weekday and weekend activities on a timeline chart. The participants were instructed to discuss individual activities and agree upon and depict the common ones, with notes to describe any outstanding differences. The exercise was undertaken with eight groups in five schools, three in Rawalpindi and two in Islamabad, in summer. The exercise was repeated with ten groups of girls and six of boys in winter. The stylized daily and weekend activity charts of the girls and boys are in Appendix-B by season, along with major activity graphs by age-group.

## Pilot-testing of Questionnaires

Three sets of questionnaires were developed for semi-structured interviews of girls, boys, and guardians. It was felt important not to ask any leading, ambiguous, or inappropriate questions, particularly from girls 11-12 years of age. The questionnaire for girls was pilot-tested with two girls from each of the four age-groups, and revised after the pilot test.

## Sampling and Analysis

The target schools in the above localities were selected on the basis of convenience, while colleges were selected on the basis of significant student enrolment from the case study localities. The respondents for SSI were selected from a sampling frame of adolescent girls enrolled in these schools and colleges in four age-groups, namely 11-12, 13-14, 15-16, and 17-18 years of age. A total of 432 girls were identified and interviewed using random number assignment against class rolls till a minimum of 25 entries in each age group-locality cell was achieved. Similarly, 139 boys were identified to achieve a target number of interviews in each age-group and locality. A purposive sample of 100 guardians for SSIs and FGDs was taken, distributed among the four localities. The samples sizes are adequate for standard statistical analysis, with the exception of the boys at the level of the age-group/locality cells. The y-axis on the graphs has been converted to percentages to enable easy comparison between the categories of respondents and across localities. Microsoft Excel and SPSS version 16.1 were used for data entry and tabulation. The cross-tables are available upon request.

Satellite imagery (from Google Earth) and layout plans were acquired from CDA and RDA for the detailed designing of a proposed women's section in Fatima Jinnah F-9 Park, for the Neighborhood Park in Sector G-8, and the Ladies Park in Block B, Satellite Town. Improved schoolyards were designed for Islamabad Model School for Girls (IMSG) G-7/1 and Government Girls Secondary School, Afzal Town. PLA tools were used to facilitate groups of early (11-14 years) and late adolescent girls (15-18 years) in the pair-wise ranking of their preferences before and after exposure to the design interventions. The views of academics, architects, business leaders, district education officers, and town planners were obtained before preparing to help validate policy and program options that are gender-sensitive.

## Focus Group Discussions with Parents, Teachers and Students

Four FGDs with the guardians of adolescent girls have been conducted, one in each target locality. Facilitators who were trained in ensuring the voice of every participant conducted the FGDs. They were held immediately after the participants individually responded to the SSI. This helped keep a focus on the issue at hand. Most of the participants were mothers, along with some fathers, brothers, and teachers. Quotations drawn from the transcripts of the FGDs are in Appendix-C. In addition, informal discussions were held with groups of female and male students.

## Urban Open Spaces Observation

Four parks were identified as the apex recreational sites by the SSI respondents from the four case study localities. They are:

- i. Fatima Jinnah Park, F-9, Islamabad
- ii. Lake View Park, Rawal Lake, Islamabad
- iii. Ayub Park, Grand Trunk Road, Rawalpindi
- iv. Nawaz Sharif Park, Rawalpindi

The Research Team visited these parks on the weekend immediately after EidulAzha 2013, in anticipation of peak visitor loads, with an assessment tool comprising sixteen variables, two each for the eight CFS and AGFS indicators. The filled out score sheets along with photographs of activities at the parks are attached in Appendix-D.

Two local parks were observed on a regular basis on weekdays and weekends but at different times of day throughout the year (2013-14) of this research project. Notes were kept on the number and the gender and age mix of the participants and their play activities (sports) on each observed occasion.

The schoolyard activities of girls during the recess period were observed at thirteen schools in the four target localities in relation to schoolyard size and other variables. A questionnaire was also administered to late adolescent girls on their recess period activities at two of the target schools.

## RESEARCH FINDINGS

### Salient Findings from Research Literature Review

Since the 1990s, there has been a flood of research, as described in the literature review above, on children's urban experiences and outcomes across academic disciplines and professional specializations. This has revitalized the call for interdisciplinary collaboration (Killingsworth, Earp and Moore, 2003). Most of the studies are limited to the Western world. It has meant attention on issues such as crime in high-rise public housing, urban sprawl, dependence on the motor vehicle, and its intrusion into neighborhood spaces. These are presently not the leading issues of cities in developing countries, though they are becoming more salient.

There is a substantial body of research on vulnerable children in poor urban situations in developing countries, such as street children, waste pickers, and youth gangs. There are fewer studies on children at play in developing cities. We have not been able to locate any predecessor study on the impediments to access, and use of, urban parks and schoolyards by adolescent girls in Pakistan.

However, the findings of global research programs on CFC, such as GUIC, are rich in implications for urban policy in Pakistan. The work of other researchers on children and women in cities, which is explicitly or potentially cross-cultural, also raises pertinent questions for Pakistani decision makers.

The GUIC was grounded in child-centered research at twelve trans-continental sites. It found that children in a squatter settlement of Bangalore and in a slum next to the old port of Buenos Aires were more satisfied with their socially congenial environments compared to the children in localities with more material resources in the USA, Europe, and Australia (Chawla, 2002). The questions arise: where in urban Pakistan do children play freely in the streets? Are there any ‘slums of hope’ where children are satisfied with their environment despite their low material resources? How satisfied are the children of the well off, with their increasingly commodified, and expensive, private indoor recreational settings?

Cindi Katz (1997) found that children in rural Sudan and in New York City were equally affected by, and not equipped for, the challenges arising from the globalization of production and consumption. Are Pakistani children being educated and trained for the world in which they will come of age?

After a career devoted to researching the commuting patterns of men and women, Susan Hanson (2010) asserts that the bicycle is a key instrument for the liberation of women, as well as for sustainable mobility in the future. Can Pakistan aspire to sustainable mobility for its citizens without enabling women to cycle comfortably on its streets? What cultural changes will it take to make this happen?

Myrna Breitbart (1997) has documented young people using street art, design, and performance as mechanisms for reclaiming a space for themselves in urban life, or simply as outlets for creative expression and survival. They are attempting to change and generate homelike qualities in otherwise unwelcoming and unsafe spaces. Are there similar examples of adolescent street art in Pakistan? How can such efforts be engaged for urban revival in the country?

Among the engaged disciplines, CFS criteria have largely been developed by architects and urban planners. There are critiques of the concept from different aspects of academia. Our approach in this Study has been to use the mainstream CFS criteria for the assessment of parks and playgrounds, and for proposal development, while looking out for responses from our target beneficiaries that may reflect a viewpoint in the critiques.

## Results of Observation at City and Local Parks

There were a large number of families with adolescent girls’ at all four city parks on the long weekend after EidulAzha 2013. They appeared secure in the anonymity of numbers and the visibility to each other and park wardens. Many families and children were enjoying the occasion with the facilities on offer and/or their own provisions. The summary results of the park assessment and participant observation at the city parks are presented in Table 1 below:

**Table 1: Scores as Child and Adolescent Girl Friendly Spaces (% of maximum)**

City Park	CFS %	AGFS %
Fatima Jinnah Park, Sector F-9, Islamabad	84	65
Ayub Park, Morgah, Rawalpindi	70	66
Lake View Park, Rawal Lake, Islamabad	64	63
Nawaz Sharif Park, Murree Road, Rawalpindi	63	59

All four twin city parks appeared to be quite child-and adolescent-girl-friendly spaces, at least during day time on a peak holiday. The scores need to be validated for other occasions and times of day/week.

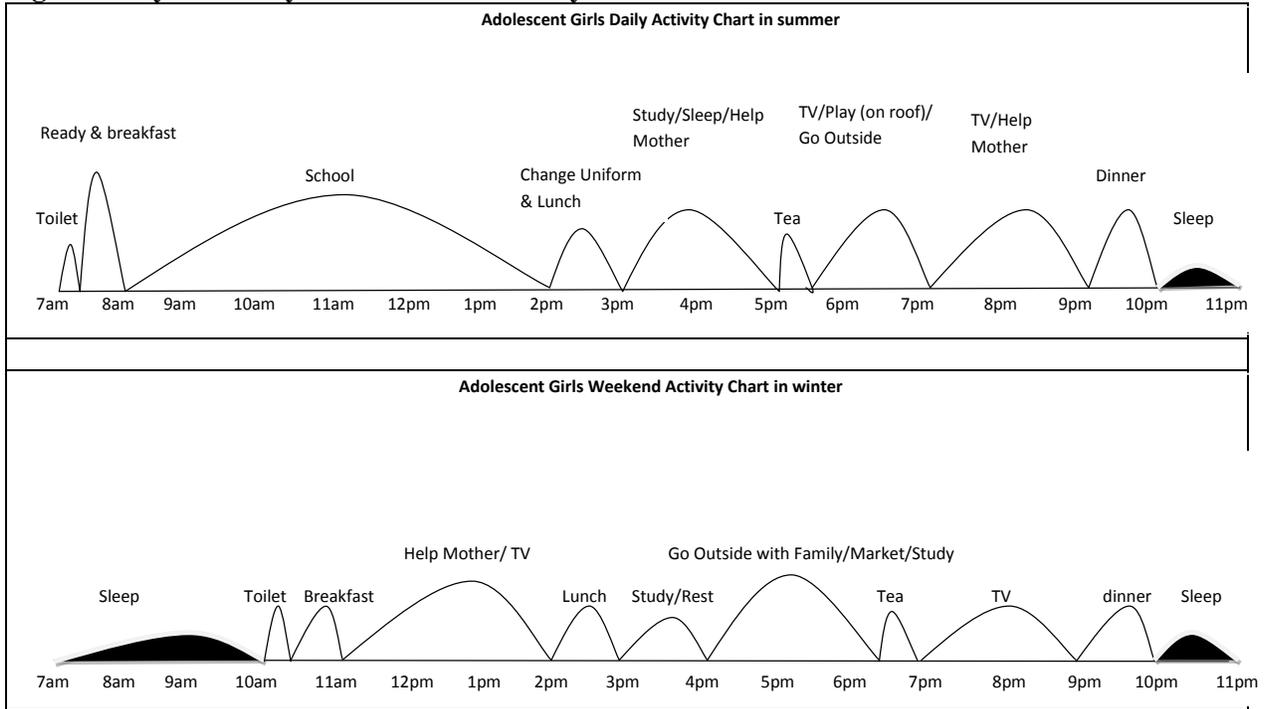
Boys were the predominant users of the local parks observed in this research, mainly for cricket and some football in the afternoons and evenings on weekdays, and all day on weekends. Young children visited the peripheries of the parks on occasion, mainly in the mornings. Adolescent girls were not, or rarely, observed at the local parks.

## Findings from Daily and Weekend Activities Charts & Graphs

Fig. 3 presents stylized activity charts by season, while Fig. 4 presents the major activity graphs by age-group. One key finding is that the girls have to ‘assist mother’ with house work on weekdays, and even more so on weekends. These responsibilities increase with age and cut into the girls’ ‘free time’. A related finding is the withdrawal of

girls' ranges and licences once they hit puberty. Early adolescent girls are allowed to play daily in the summer months, mainly in the courtyards or on the rooftop of their houses. In fact, the pre-teen girls in Islamabad are able to play in public (neighbourhood) grounds for an hour or so on weekdays, but not their older sisters. The weekends have a distinct time use pattern. Despite the extended home chores, some girls visit parks with their families fairly regularly on weekends. For example, three out of eleven girls in one responding group in Rawalpindi go to parks on the weekends with their families. Some others play cricket or badminton on the roof of their houses for two hours on weekends.

**Figure 3: Stylized Daily and Weekend Activity Charts**



**Figure 4: Main Activity Graphs**



Girls are more house-bound in winter than in summer. After helping mother with housework on weekdays, the older girls have no time for outdoor play during the shorter daylight hours. They assist with housework in addition to procurement from the Sunday bazaar on the weekends. A minority of the younger girls report playing badminton and cricket during the weekdays and weekends in winter for an hour or so. Some girls visit parks with relatives on weekends. But a more common weekend activity for the girls is visiting relatives.

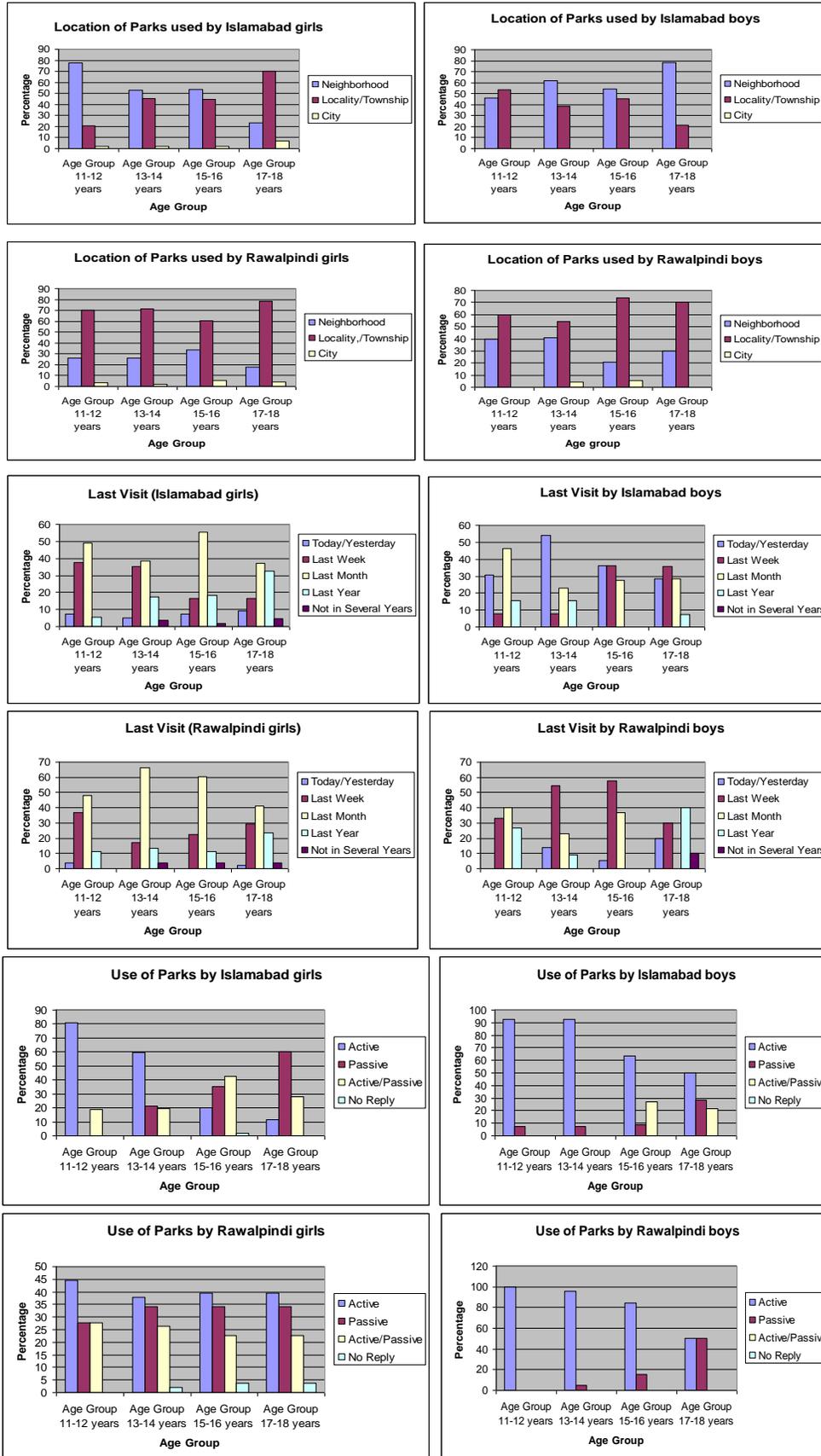
Generally, the boys play outside for two hours daily on weekdays and up to four hours during the weekends, mainly cricket. In addition, they play computer games and watch TV for 4-6 hours. Some of the boys in the localities without tap water, or with intermittent supply, fetch water from the tube well.

The finding that girls work long hours on informal home responsibilities is consistent with reports from many settings (Bartlett et al, op cit), but the withdrawal of the freedoms from teenage girls which had been permitted to them earlier as pre-teens has a specific cultural context.

### Key Findings from Semi-Structured Interviews

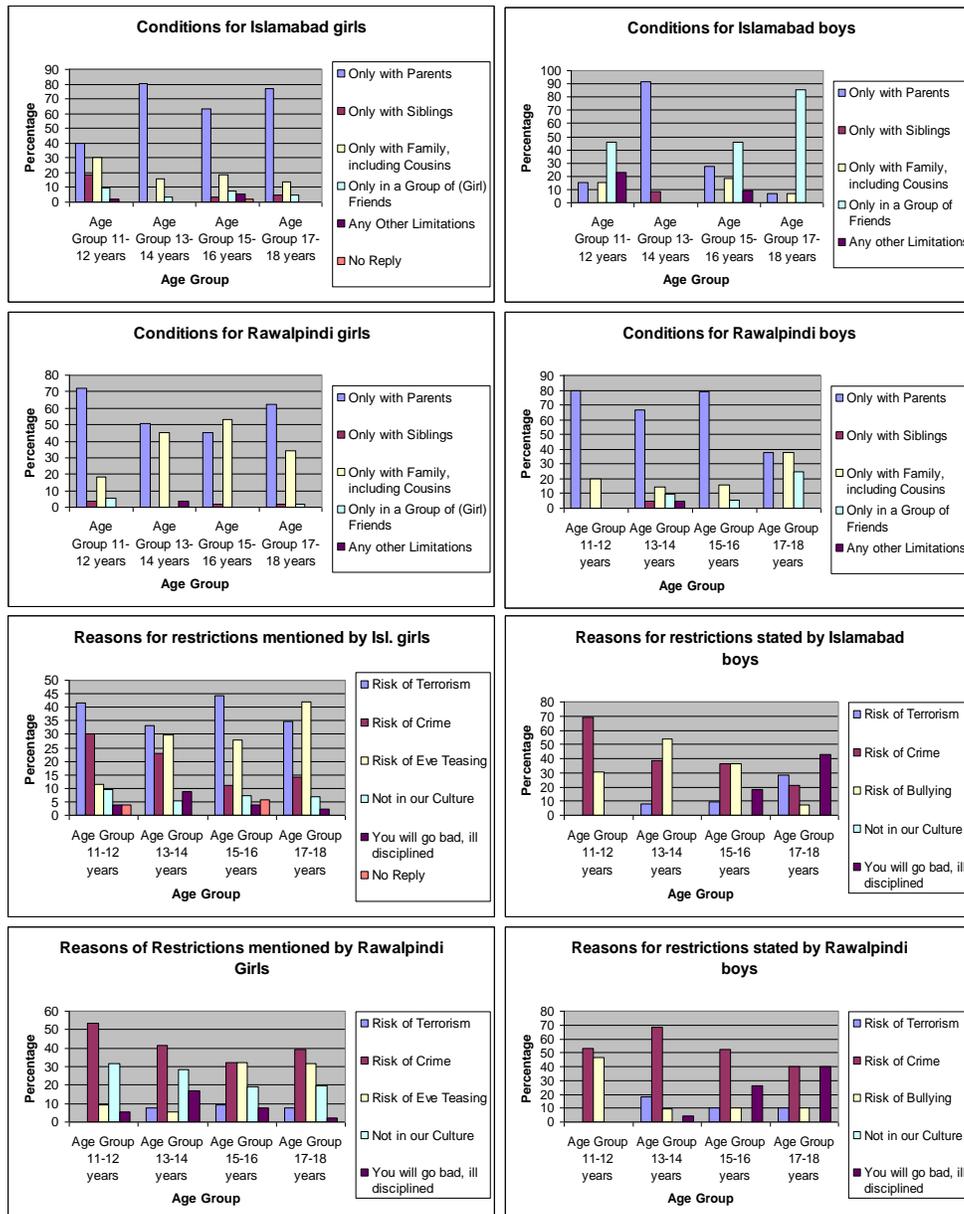
Fig. 5 shows the responses of girls and boys to questions about the frequency and category of parks visited and the use of the park. A key finding is that girls visit parks once a month on average, much less frequently than the boys. Second, it is pre-teen girls in Islamabad who avail the neighbourhood park spaces that are not pre-empted by the boys. Their older sisters prefer visiting the higher level sector and city parks. Third, the pre-teens and 13-14 years old girls use the parks for games and exercises. Such use tapers off among their older sisters; many are limited to passive recreation despite their stated preference for active exercises, such as cycling. The preference of the older girls for sector and city parks that have more variety of features is consistent with the literature (on amusement parks, for example), but their inhibitions to engage in active recreation must be investigated in a culture-specific context based on the local situation.

**Figure 5: Location, Frequency of Visit and Use of Parks**



Almost all the girls need prior permission to go to parks. The father is the main person that grants permission to both girls and boys. After him, the mother is key person responsible, who may grant permission on her own, especially to the boys. Many girls and the younger boys need permission from both parents. Fig. 6 shows the responses to questions regarding conditions for visiting parks and the reasons for the restrictions. Most girls can only go to parks accompanied by their parents. The license given to the pre-teen girls of Islamabad to go to parks in the company of siblings, cousins, and girlfriends is withdrawn as they attain puberty. The availability of neighbourhood parks in Islamabad does not translate into independent access for the older girls. Crime and teasing were the main reasons for the restrictions reported by the older girls. Only a small minority responded “Not in our Culture”. Some 40% of the oldest age-groups of boys in both cities felt that their parents restricted them from parks due to the risk of the boys themselves going bad. This was not the case for most girls. Parents either have more trust in the character of their daughters or do not share such anxieties with them.

**Figure 6: Conditions and Reasons for Restrictions**



## Group Discussions

Informal discussions were held with groups of girls and boys, while focus group discussions were facilitated for parents and guardians to discover their concerns and preferences regarding outdoor recreation for girls.

### INFORMAL DISCUSSIONS WITH GROUPS OF GIRLS

Pre-teen girls are permitted to go to neighborhood parks, though crossing the road is a concern for them and their parents. Older girls are more restricted. Parents ask them to stay at home and go out only with the family group. The on-going law and order situation in the country is the main hurdle cited. The distance to parks is an issue given the limited mobility of adolescent girls. Neighborhood parks are not properly maintained. The absence of lights, the lack of swings and other play fixtures, and deficiencies in the quality of support services are other issues. Teasing is very common, and a most disturbing factor especially for older girls in the 15-16 and 17-18 years age groups. They want to use parks and other urban open spaces, but hesitate to go by themselves, or with their parents, due to the misbehavior of boys. In particular, older girls want to use the parks for exercise, but cannot do so owing to the presence of boys.

### INFORMAL DISCUSSIONS WITH GROUPS OF BOYS

Boys of all age groups can conveniently access parks and playgrounds. Formal games like cricket are most popular among the boys. They can easily arrange weekly games and go to them with a group of friends when a park is not available nearby. The older boys use parks in the mornings and the evenings. They have no major concerns about park security and safety, but need parental permission because of an increase in the crime. Late adolescent boys report that family parks are more suitable for their sisters instead of neighborhood parks.

### FOCUS GROUP DISCUSSIONS WITH PARENTS AND GUARDIANS

Four FGDs were conducted with parents and guardians to hear their views and concerns about outdoor recreation for their daughters. Most mothers said that girls could not go to parks, and other outdoor places, as these are pre-empted by boys. Girls cannot even play on the roof tops of their homes owing to the misbehavior of the boys next door. The absence of parks within the neighborhood, and even at the locality level, is a serious problem (in Rawalpindi). Fathers regret not having the time to take their family to parks frequently, but, due to security issues, cannot allow their daughters to go unaccompanied. In certain situations, some parents feel that the environment in the parks is not safe, even for their sons. Street crime, kidnapping, along with other crimes against girls, are the major hurdles.

Girls have more responsibilities for housekeeping and are more engaged at home. Parents easily permit young girls to visit parks, but older girls cannot go out unaccompanied. They believe that providing more family parks, along with stricter security, is necessary, as well as restrictions on boys entering the park as a group. A father mentioned that ladies parks are not an appropriate solution because of the overcrowding of males around the entrance and exit points.

Three of the four parent groups reached an agreement for allowing school management to arrange outdoor recreational opportunities for girls, and committed to cooperate with the schools in this regard. Many private schools have no open spaces for outdoor activities. Parents recommended that the school management seek the use of the available grounds in state schools after consultation with District education officials. At the same time, the parents stressed that if schools arranged such recreational activities, the management would have to be fully responsible for the security and safety of the girls. In response to the proposal to use the open spaces in government schools in the evenings, mothers expressed a reluctance to drop off and pick the girls again in the evening, while they could not allow them to go unaccompanied.

In their individual interviews, most Islamabad parents stated teasing and crime to be the reasons for restricting girls from going to parks. Around half the Rawalpindi parents responded “Not in our Culture”, but in the FGDs that were held immediately after the interviews, many appealed for safe, secure outdoor opportunities for their daughters. Box 2 provides some quotations from the discussions.

## Box 2: Quotes from Focus Group Discussion

“We cannot permit our daughters to go to parks because of the increase in crime and teasing” – Parents;

“Girls feel depressed remaining at home all the time, and have eye sight issues from extended time on the computer” – a Mother;

“We cannot afford to visit parks frequently [because of the expense]”, - a Father;

“There is no open space in our locality for a park. In a neighboring locality, people have constructed a boundary wall around an open space so that children can play safely. It is a good attempt that we could follow”, a Father in Rehmatabad;

“Girls have the right to grow and go forward, and need the support of family and school” – a Mother;

## Choices of Adolescent Girls for Features in Parks and Schoolyards

Group work was conducted with groups of early and late adolescent school and college girls. The purpose of the experiment was to ascertain their preferences for outdoor facilities in parks and schoolyards from an initial set based on their own experiences (a, b,...n), and a wider set (a, b, x, y,...n), based on new information.

The research team developed plans and designs for improving a section of a city park, two neighbourhood parks, and two schoolyards. The designers were professional architects but not landscape design specialists. They were instructed to design improvements to the parks and schoolyards with reference to the eight Kevin Lynch criteria for child-friendly spaces, namely Security, Safety, Leisure, Accessibility, Provision for Physical Activity, Environment, Ecology, and Educational Value. The Principal Investigators (PIs) ensured that the plans contained both “innovative” elements with educational values and “traditional” elements, such as slides and rides. The plans and designs are placed in Appendix-E.

Four early and late adolescent groups (each of around eight girls) were asked to brainstorm and list the features they would like to see in parks and schoolyards. The individual lists were collated, and the groups were facilitated in achieving a joint preference ranking for the features using the pair-wise ranking method, and sorting out any logical inconsistencies (of the type  $a > b > c > a$ ). When they had accomplished these exercises, the park and schoolyard plans were shared with them for 15-20 minutes with equal attention paid to each element, whether innovative or traditional. The girls were asked to brainstorm again to develop new lists and rank their preferences using the same method and process.

Since the purpose was to ascertain the initial, and subsequently informed preferences of groups of early and late adolescent girls, it was important to control for expert biases and other confounding variables. Three levels of blindness were maintained to reduce the risk of biases in the post-exposure responses:

- The girls were shown the layout plans and designs for a schoolyard in a different sector/locality to avoid any parochial biases related to their own schoolyards;
- The presenters were instructed give equal attention to all the elements in the plans without differentiating between, or even naming as such, the innovative and traditional ones; and
- The PIs did not share with the designers the findings of research from C. Th. Sorenson onwards (Staples 2006) that children become quickly bored with traditional parks and schoolyards with fixed play fixtures, such as slides and swings.

However, simply sharing the possibility of multiple use play spaces with the girls was expected to lead to some changes in their preferences. As anticipated, the appreciation that a space can be put to different uses at different times led some groups to pitch their priorities (ex post) at a higher level of abstraction.

## PREFERENCES FOR IMPROVEMENTS TO CITY AND LOCAL PARKS

The initial and ex post preferences of early and late adolescent girls at IMCG G-8/4 were obtained with reference to the layout and new plans for Fatima Jinnah F-9 Park and a local park of Sector G-8. The priorities of early and late adolescent girls are shown in Tables 2 and 3.

**Table 2: Early Adolescent Girls Priorities for G-8 and F-9 Parks in Islamabad**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Security Features	1	Green Area	1
Playground	2	Play Area	2
Plantation	3	Washroom	3
Green Area	4	Security System	4
Sitting Spaces	5	Sitting Area	5
Zoo	6	Dustbins	6
Swings	7	Cycle Track	7
Canteen	8	Walking/Jogging	8
Slides	9	Swings	9

**Table 3: Late Adolescent Girls Priorities for G-8 and F-9 Parks in Islamabad**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Cycle Track	1	Cycle Track	1
Canteen	2	Canteen	2
Gym Area	3	Guards	3
Maintenance	4	Gym Area	4
Ladies Area	5	Sports Area	5
Sports court	6	Walking Area	6
Sitting Area	7	Sitting Area	7

The same methodology was used with groups of girls at Bright-land Secondary School, Satellite Town in Rawalpindi. The preferences of early and late adolescent girls are shown in Tables 4 and 5, respectively.

**Table 4: Preferences for Park Features among Early Adolescent Girls of Rawalpindi**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Green area	1	Cycling	1
Cycling	2	Swings	2
Go Cart racing	3	Horse riding	3
Swings	4	Boundary	4
Washrooms	5	Tracks	5
Horse riding	6	Only for Girls	6
Swimming pool	7	Lady Guards	7
Play area	8	Exercise Area	8
Exercise Area	9	Swimming pool	9
Sitting Area	10		

**Table 5: Preferences for Park Features among Late Adolescent Girls of Rawalpindi**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Go cart racing	1	Play area	1
Cricket	2	Green area	2
Cycling	3	Boundary	3
Washrooms	4	Go cart racing	4
Horse riding	5	Horse riding	5
Football	6	Tuck shop	6
Swimming pool	7	Swimming pool	7
Lady Guards	8	Lady Guards	8
Green area	9	Washroom	9

The points to note about the changes in the girls' rankings of features in public parks are:

- A change in orientation from formal games in playgrounds with security features towards informal creative play in green areas among the early adolescent girls of Islamabad;
- The persistent priority given to cycling tracks in public parks among late adolescents of Islamabad;
- Cycling in public parks is also a persistent and informed priority of the early adolescents respondents in Rawalpindi; and
- The change in priorities from safe thrills (Go-cart racing) and games towards unstructured play and relaxation in green areas among the late adolescent respondents of Rawalpindi.

## PREFERENCES FOR SCHOOLYARD FACILITIES

Schoolyards can provide safe and convenient opportunities for environmental and social learning. In fact, school environments are the main option of adolescents for trying out new activities, obtaining new information, and hanging out (Duzenli et al, op cit). With parks occupied by strangers, drug addicts, and street gangs, or simply pre-empted for use by the boys, school grounds become even more significant sites for adolescent girls' outdoor physical activities (Malone and Tranter 2003).

Pakistan has lagged behind comparable countries in the provision of education to its children. The estimates of out of school children vary widely. However, the gross enrollment rate (GER) for urban children has improved in recent years. It is especially noteworthy that the GER for urban girls at the Matriculation level (Classes 9 and 10) has reached 74%, the same as for boys (PSLM 2014). A contributing factor is the growth in private schools that now account for half the urban enrolment (ibid).

Most private schools for low and middle income groups are located in converted residential units. A concern is that the limited yard space in such settings constrains outdoor play and denies children the opportunities for physical development and for cognitive and social learning in playgrounds. On the other hand, it is observed that the ample spaces at many State schools have not been developed as creative playgrounds.

Table 6 shows the priorities of early adolescent girls (11-14 years of age) studying at IMCG G-8/4 before and after exposure to the layout and designs for proposed improvements to a schoolyard at a school similar to their own.

**Table 6: Early Adolescent Girls Priorities for Schoolyard at IMCG G-7/1 Islamabad**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Swings	1	Informal Play Area	1
Shopping Area	2	Natural Area	2
Badminton	3	Formal Play Area	3
Plantation	4	Art Work	4
Slides	5		
Cricket	6		
Football	7		
Hockey	8		

Table 7 shows the preferences of late adolescent girls (15-18 years of age) before and after exposure to the same design proposals as above for the schoolyard at IMCG G-7/1, Islamabad.

**Table 7: Late Adolescent Girls Priorities for Schoolyard at IMCG G-7/1, Islamabad**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Cycling	1	Formal Play Area	1
Walking Tracks	2	Natural Area	2
Cricket	3	Informal Play Area	3
Plantation	4		
Ground/Green Area	5		
Swings	6		
Gym	7		

Bright-land Secondary School, Satellite Town has little space for outdoor physical activity. The rankings of its early and late adolescent girls before and after exposure to detailed designs for improvement to the schoolyard at Government Girls High School, Afzal Town are shown in Tables 8 and 9.

**Table 8: Early Adolescent Girls Priorities for Schoolyard at GGHS, Afzal Town, Rawalpindi**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Basketball	1	Play Area	1
Open Spaces	2	Natural Area	2
Badminton	3	Exercise Area	3
Swings	4	Cycling Area	4
Cricket	5	Jogging Track	5
Plantation	6	Art Place	6
Walking Area	7	Sitting Area	7

**Table 9: Late Adolescent Girls Priorities for Schoolyard at GGHS, Afzal Town, Rawalpindi**

Before Exposure		After Exposure	
Preferences	Rank	Preferences	Rank
Plantation/Green Area	1	Cycling Track	1
Swings	2	Canteen	2
Canteen	3	First Aid Room	3
Badminton	4	Cricket	4
Walking Area	5	Exercise Area	5
Play Ground	6	Wash Room	6
Exercise Area	7	Ground	7
Sitting Area	8	Walking Track	8

The key results from comparing the prior and informed rankings of the features that girls would like to see in schoolyards are:

- The preference of early adolescents, both in Islamabad and Rawalpindi, for unstructured creative play was strengthened by the exposure to the schoolyard plans and designs;
- There was a sharp decline in the ranking of fixed play fixtures, such as swing and slides, among both age-groups after exposure to the layout plans that revealed other options;
- The preferences of late adolescents for individual recreation, individual exercise, and formal games were strengthened by exposure to the layouts and designs; and
- In particular, cycling in the schoolyard is a high priority for many late adolescent girls.

Most of the results are consistent with the established theories on children's play preferences, such as for 'junk' or 'loose materials' suitable for exploratory and creative activities in parks and schoolyards (Lynch 1977, Moore et al 1992). Similarly, the preference for cycling is consistent with the finding that cycling is a liberating and empowering activity for young women (Hanson, op cit). The shift from safe thrills, like slides and rides, to creative relaxation, such as outdoor art work, also suggests cross-cultural validity to the observations of Turner (2004) and other researchers. The results are consistent with the findings of Lloyd et al (2008) that early adolescent girls prefer socialization in parks, while late adolescents prefer 'individuation' or escape from structure in their lives. Barbour (1999) has reported a clear bias towards sports (formal games) within those groups more physically competent. In line with this finding, formal games are a priority for our sample of older, more physically competent, girls, and not for the younger girls. Indeed, sports should not be seen as a substitute for play (Bateson, op cit).

Not all the results are consistent with theory. While dropping swings from their ex post preference list in the schoolyard, the early adolescents at Bright-land Secondary School gave a higher preference to swings at parks after exposure to the layout plans and designs (Table 4). There could be several explanations. The infrequent access of the girls to parks, and the continued novelty of elaborate models of play fixtures, could be a factor. It must also be noted that a group of late adolescent girls exhibited shyness for cycling in public parks after exposure to the reality of the activity via a park design while retaining their fancy for horse riding (Table 5). On interrogation though, the latter activity is more like sitting on a pony walked by a handler than proper horse riding. However, these are merely caveats to the main findings.

The main results are that expensive fixed play fixtures in parks and schoolyards may attract, but do not retain, the interest of adolescent girls, while cycling in the schoolyard is a high priority for them. Rather than investing scarce resources in elaborate play fixtures, it may be better to design and equip play spaces with loose and malleable, so-called 'junk', materials. Balls, hay bales, old car tires, plastic crates, and other such materials are not expensive and stimulate much more physical activity among children than fixed equipment that they cannot manipulate (Freeman and Tranter, op cit). Cycle-banks appear to be a worthwhile investment for the older girls in high school and college. The making of creative play spaces or 'greening the schoolyard' calls for the application of professionally trained innovation after consultation with the children (Dyment and Bell, 1997; Tranter and Malone, 2004).

## **CONSULTATIONS, INFERENCES, AND RECOMMENDATIONS**

This section presents the process and findings of stakeholder and specialist consultations, draws inferences, and makes recommendations based on the project findings. The domain of the recommendations, their sequencing, risks, and assumptions are integrated in the presentation. The section is rounded off with sub-sections on Conclusions and Future Research.

### **Stakeholder's Conference**

A day long stakeholder's conference was held in the New Auditorium, AIOU on February 04, 2014. As noted earlier, the UNCRC calls for the meaningful participation of children in decision-making on issues that directly relate to them. The insights and voices of children are indeed central to this research project. Around fifty girls from seven schools in the case study localities actively participated in the conference, along with their teachers and some boys and mothers. In the morning session, student-led groups formed with reference to the CFS parameters, discussed the issues, and made recommendations. The outputs were questioned, clarified, and contextualized by sector experts, including a gender specialist. In the afternoon, the recommendations were presented to a senior panel,

comprising the Vice Chancellor and the Dean, Sciences, AIOU, Country Manager, Plan-International, and the Chief of Party, PSSP/IFPRI. Policy and strategic directions and some salient program measures that emerged from the Conference are described below.

## POLICIES AND STRATEGIES

It was agreed as important to initiate networking among academics and researchers on the CFC research agenda. The outputs could include curriculum development for teachers and secondary school students on the concepts and best practices of CFC. Simultaneously, there was a need for a broader coalition on CFC across the academic, corporate, and NGO sectors along with the development assistance community. Policy advocacy was seen as one of the important tasks of the coalition, especially to seek clarity in the roles of the federal and provincial governments, city agencies, and other stakeholders in promoting CFC and CFS.

In parallel, there was a need for programs that provide visual exposure for vanguard Pakistani mothers and students to worldwide experiences and learning on CFC and CFS. It could be the basis for gender-sensitization training programs for boys and girls in collaboration with schools, youth clubs, neighborhood associations, and civil society organizations.

A cross-cutting theme was to focus on options with high return on investment (ROI) as opposed to CFS arrangements that require intensive regulation. Public private partnerships (PPP) and corporate sponsorship of family parks were high ROI options. The costs of operations and maintenance of the family parks could also be met by licensed vendors allowed to operate there. However, there is more risk of enclosure and exclusion in the latter arrangement (reference the concerns of Breitbart, op cit, Iveson, op cit and others).

An important reminder that was highlighted at the conference was not to neglect out-of-school girls. They may be mainstreamed in programs for organized outdoor activities for all children. They may also be targeted through special events for outdoor activities for deprived children. These efforts should be in addition to school enrolment drives and campaigns.

## MEASURES

A number of measures were debated and presented during the plenary session. It was agreed that the type and quality of training of security guards was crucial to the realization of child-friendly public parks. The grounds of state and corporate establishments could also be used as parks and playgrounds for girls after office hours and on holidays. Such arrangements could be put in place by the establishments concerned in collaboration with neighboring communities. It was also agreed as important to provide adequate lighting and clean toilets at public parks for the convenience of the girls.

## Consultations with Experts and Resource Persons

The research team held consultations with sector experts and persons with more broad-based knowledge on the topic to validate the findings and obtain feedback on the practical feasibility, and cost-effectiveness, of the interventions proposed under the project. The following paragraphs describe the dialogues that have been helpful in finalizing our recommendations.

Meetings were held with a Businesswoman/CEO noted for her leadership in corporate social responsibility programs and with the country representative of a multinational corporation to present the findings of our research and to ascertain their views on the current roles and prospects of corporate support for CFC/CFS.<sup>5</sup> The corporate sector already sponsors girls' teams in a number of sports, and also sponsors parks and street furniture in many places. Their responses to the potential for further corporate sponsorship of family parks and environmental education were positive.

A working session was held with an architect on designs for courtyards and outdoor play spaces within housing units that could be achieved with more flexible by-laws for setbacks.<sup>6</sup> A number of design concepts

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<sup>5</sup> Ms. Syed Henna Babar Ali, CEO English Biscuits (Pakistan) Limited (November 2013) and Mr. Nadeem Jafarey, Country Representative, Chevron (Pakistan) Private Limited (November 2014)

<sup>6</sup> Mr. Jamshed Khan, Principal Architect, Jamshed Khan Associates (December 2013)

emerged from the consultation. The proof-of-concept results showed that courtyard play spaces can be created on small lots by adopting less rigid by-laws for setbacks.

A presentation was made to the Asian Development Bank, Urban Sector Mission. Positive feedback was received from the mission on the CFC/CFS concepts and research findings.<sup>7</sup> The ADB already mainstreams gender in its urban sector work.

A meeting was held with the District Education Officer (DEO) of Rawalpindi and his staff on the issues of cramped private schools, the current practices for promoting sports in schools, and the feasibility of using state schools as hubs for inter-school girls' games.<sup>8</sup> The DEO informed us that private schools pursue him to obtain the 20 year No Objection Certificate (NOC) to operate, and after receiving the certificate the NOC he has to pursue the schools. He agreed that offering play spaces at state schools to private school students could be of mutual benefit to all parties, especially the children. However, equitable arrangements need to be worked out.

Views and research outputs were exchanged with a group of international and national researchers working on urban climate change resilience.<sup>9</sup> A common concern was the vulnerability of women, who spend the majority of their time at home. A prolonged high heat index, that is temperature plus humidity, could severely affect the vulnerable populations stuck inside buildings with concrete roofs. Such conditions may become common in the coming decades.

A meeting was held with a former Vice Chancellor, Lahore University of Management Sciences to hear about his successful experiment in promoting on-campus bicycling.<sup>10</sup> We learned that the bicycling scheme was enthusiastically taken up by the female students of LUMS.

## Inferences

Inferences are made by consolidating, synthesizing, and if necessary, contextualizing the findings and results. This section provides the key inferences derived from the research.

## ABOUT PARKS

Families do patronize city and theme parks in substantial numbers on festive occasions and long holidays, feeling secure in their visibility and anonymity in the crowd (reference Woolley, op cit). However, it is expensive to get to the city and theme parks and to use their features. Many guardians and girls say that the burden on the household budgets is too much and cannot be afforded frequently. Neighbourhood open spaces are available in Islamabad, but are only available at the township levels in the Rawalpindi case study localities. Whatever the level of provision, teenage girls have been virtually excluded from neighbourhood, sector, and town parks by the facts and/or perceptions of increasing rates of crime and teasing, and of the parks being occupied by strangers, who may be drug addicts, or simply by the pre-emptive use of the parks by boys.

## ABOUT SCHOOLYARDS

Many long established state schools have adequate playgrounds. This includes government schools located in dense and city centre localities, such as Afzal Town, and former municipal corporation schools in Committee Chowk, Rawalpindi. But parents with resources prefer to send their children to private schools due to the poor quality of teaching at the state schools. Nationwide, more than half of urban students are enrolled in private schools (PSLM, 2014), but girls and boys in private schools have limited, or no, opportunity for outdoor recreation because most private schools are located in residential units with little outdoor space. Islamabad is an exception, with its Government Model Schools for Girls, but sadly students are not encouraged to fully utilize the existing playgrounds.

## ON THE ATTITUDES OF GIRLS AND THEIR PARENTS

Early adolescent girls are quickly bored with swings and slides. When shown options, many girls prefer "loose features" that can be manipulated in the process of informal creative play. Girls become more inhibited in the active

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<sup>7</sup> Mr. Anand Chiplankar, Mission Leader, Ms. Sara Azfar and Mr. Shaukat Shafi, Members, Asian Development Bank, Urban Sector Mission (February 2014)

<sup>8</sup> Qazi Zahoor ul Haq, District Education Officer, Rawalpindi and Syed Saleem Raza, ADEO, Rawalpindi (April 2014)

<sup>9</sup> Dr. Marcus Moench, President and Founder, ISET, Mr. Fawad Khan and Mr. Ata ur Rehman Sheikh, ISET-Pakistan (April 2014)

<sup>10</sup> Professor Dr. Adil Najam, Director, Pardee Institute of Global Studies, Boston University (April 2014)

recreational use of parks as they grow older, even as individual exercises, walking, cycling, and games become their expressed priorities. Parents commonly state that girls have duties at home “assisting mother”, and the license that most guardians give adolescent girls for visiting parks is for only an hour or two. However, most parents, and especially mothers, are willing and keen for adolescent girls to avail safe and secure facilities for outdoor physical activity. Most parent groups allow, or can allow, school management to take adolescent girls for excursions and outdoor physical activities. The permission is subject to the provisions that the managements take full responsibility and that no additional drop off and pick up trips are entailed for the parents.

## Recommendations

Recommendations initially developed from the research findings have been refined through consultations. The sources of feedback were inter-generational working groups and academics, architects, business leaders, planners, and relevant officials, as well as external and internal reviewers. The recommendations are organized by the relevant stakeholders in CFC, CFS, and AGFS.

### PROVINCIAL GOVERNMENTS: LEADERSHIP INITIATIVES

Maintaining law and order, education, health, housing and urban development (HUD), and local government (LG) and youth affairs are provincial subjects under the 18<sup>th</sup> Amendment. Provincial governments may revise the standards and planning procedures (in reference manuals, in city and town planning laws, regulations, and bylaws). The National Reference Manual on Planning and Infrastructure Standards (1986) has a salient profile, and is still used as a pedagogic tool. Updated provincial manuals should incorporate the concepts of CFS and AGFS in all relevant sections. Provincial departments should roll out capacity building programs on CFS and AGFS for urban local governments and city agencies.

The Directorates and DOE may revive the requirements for outdoor physical activities during the games period. They may establish performance benchmarks and monitor them. The DOEs should revive inter-school girls’ games competitions. For this purpose, urban state schools with adequate playgrounds may be designated as the hubs for the inter-school girls’ games. These arrangements could benefit all the stakeholders, and practical arrangements can be worked out.

### LOCAL GOVERNMENTS: PHASED IMPLEMENTATION

Marking out the territory is the first step to laying claim to it. City agencies, such as Union Councils (UCs), may reach agreements with the local boys and their parents on time and space sharing at local parks. Safe mobility plans may be made with the local girls, and appropriate timings agreed upon (using checklists such as proposed by Brady, op cit). Then the UCs may put up notice boards at the parks informing the public of weekday and weekend times for priority use by girls. Maps may be put up showing sections for the exclusive use of families. Institutions must exist to support and maintain the claim. City agencies may organize community watches for parks and playgrounds with the aim of ensuring safe and secure access and use by all. This may entail forming or reviving Retired Citizens Clubs (RCC). In addition to moral authority, it may be useful to empower the RCCs with memorandums of understanding and basic management tools that clarify their roles and responsibilities as proposed by Hilborn (op cit).

Urban communities are heterogeneous, and their boundaries and membership fluid and mobile. It will be necessary to backstop community efforts with professional security and surveillance by staff trained in parks management. They should be trained in securing compliance with the rules and bylaws through the voluntary compliance of the users in most cases, but there should be a declared policy of zero tolerance for any form of bullying, as recommended by Percy-Smith and Matthews (op cit).

Models are needed to demonstrate AGFS. LGs may designate some parks as family parks and promote healthy family entertainment there in partnership with the private sector. LGs and the private sector may standardize the terms of the partnership that enable a competitive drive towards excellence in parks sponsorship and management. The PPPs should clear the selected parks of criminals, drug addicts, and street gangs, and install lights and toilets for women with proper arrangements for their maintenance. No fixed play fixtures, no user charges, and open invitations to families from all income classes should mitigate the risks of exclusion that are pointed out by Iveson (op cit) and others. Disciplinary architecture may be used judiciously (Jaffe, op cit).

There is an issue with a lack of open spaces in congested, un-planned, localities. In such localities, temporary spaces are typically created for marriages, and other public functions, by erecting screens and barriers. LGs may promote organized outdoor activities for girls in congested neighbourhoods by allowing communities to create intermittent play spaces, for example, by periodically closing of dead-end streets. This would reinforce the rituals of cultural identity that are endorsed by Chawla (op cit) for creating child-friendly spaces. Where appropriate, mini-neighborhoods may be created to foster the play of children in defensible streets as recommended by Newman (op cit).

In the socially most conservative households, women are simply not allowed out of the dwelling unit. LGs may review building byelaws, front and rear setbacks in particular, to maximize courtyard play spaces to cater for the needs of women in such situations. It is a niche recommendation for small plots in formal and regulated developments.

## FEDERAL GOVERNMENT: COORDINATION AND BACKSTOPPING

The Federal Government retains direct responsibility for the federal territories. In addition, federal and public sector agencies administer substantial urban areas. The Federal Government is the conduit for international financial and technical assistance. It may initiate a national mission for CFC and facilitate multi-stakeholder consultations with provincial governments, the corporate sector, and civil society on the mission. Prospective mission initiatives could include making available suitable grounds of state and corporate establishments for use by girls' sports clubs after office hours and on holidays. The federal government may recognize and reward youth and youth clubs that demonstrate creative and artistic forms of civic engagement towards CFC. It may also provide incentives (recognition and awards) to real estate developers for implementing CFS and AGFS elements.

State and private establishments own prime tracts of urban land, as well as grounds in most urban localities, so the proposition of opening them up for organized sports for girls after office hours and on holidays is technically feasible. The key is enlightened leadership and political will. Grounds that are fenced off, rather than walled off, may be preferred for enabling visual supervision in a secure zone (reference the Security Criteria of Moore et al, op cit).

## ACADEMIC, CORPORATE, AND CIVIL SOCIETY ROLES

Academia, corporate, and civil society organizations may introduce and scale up gender-sensitivity training courses for boys and girls in schools and colleges, youth clubs, and neighbourhood associations. In particular, the Higher Education Commission (HEC) may initiate curriculum development on CFC through a network of specialists. AIOU may take a leadership role in CFC curriculum development for teachers and secondary school students. Such initiatives are consistent with their mandates.

The corporate sector already sponsors youth sports clubs and facilities at parks and playgrounds. It offers opportunities for product branding and corporate profiling. The corporate social responsibility (CSR) units of the multi-nationals and large national corporations may extend additional support to girls' sports clubs and family parks for mutual benefit.

Civil society organizations may extend CFC based programs in their outreach areas in cities and towns. The issues of access to, and the use of, parks and playgrounds may be added to the human rights agenda as an individual and collective right (Harvey, op cit). The creeping annexation of the child's right to outdoor play deserves more attention from human rights activists owing to its pervasive extent. It may be noted, that denying children the opportunity for outdoor play has consequences for their creativity and innovation, and for the prospects of cultural change and progress (Bateson and Martin, op cit; Wexler, op cit).

## Conclusions

Children's lives are increasingly structured and regulated, leaving little time for the free and spontaneous play that is crucial to their development. The research literature reveals direct links between the health and wellbeing of children and their access to urban open spaces, and underlines the importance of child-friendly environments in cities. This study has demonstrated the restrictions on the outdoor play of adolescent girls living in Rawalpindi and Islamabad. Land development patterns, the law and order situation in the country, and 'cultural norms' are among the major impediments that restrict girls from playing outside. Most private schools catering to the schoolchildren from lower



and middle socioeconomic groups do not have adequate open spaces. Many state schools have open spaces but do not motivate girls to engage in outdoor activities. Informal and organically grown settlements have hardly any public open spaces. Girls do not have safe access to the neighborhood parks in planned localities, and are exposed to the risks of bullying and crime there. An imposed sedentary lifestyle has mild to serious health implications for adolescent girls. Urban planners, policy makers, and educational professionals in Pakistan are urged to re-visit the urban development policies and regulations to promote the concept of child-friendly cities. Our hope is that the adolescent-girl-friendly-space concept will be mainstreamed in the policies, designs, and programmes for urban open spaces, along with broader societal efforts to improve the current situation.

## **Future Research**

The next step is to assess the health benefits of outdoor physical activities for adolescent girls. It will be followed by assessments of social and environmental benefits. On the basis of the results, we plan to estimate the total economic value (TEV) of the benefits, and compare the TEV with the costs of programs for promoting outdoor physical activities for adolescent girls.

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## APPENDIX A: LOCALITY MAPS

Figure A1: Sector G-7, Islamabad

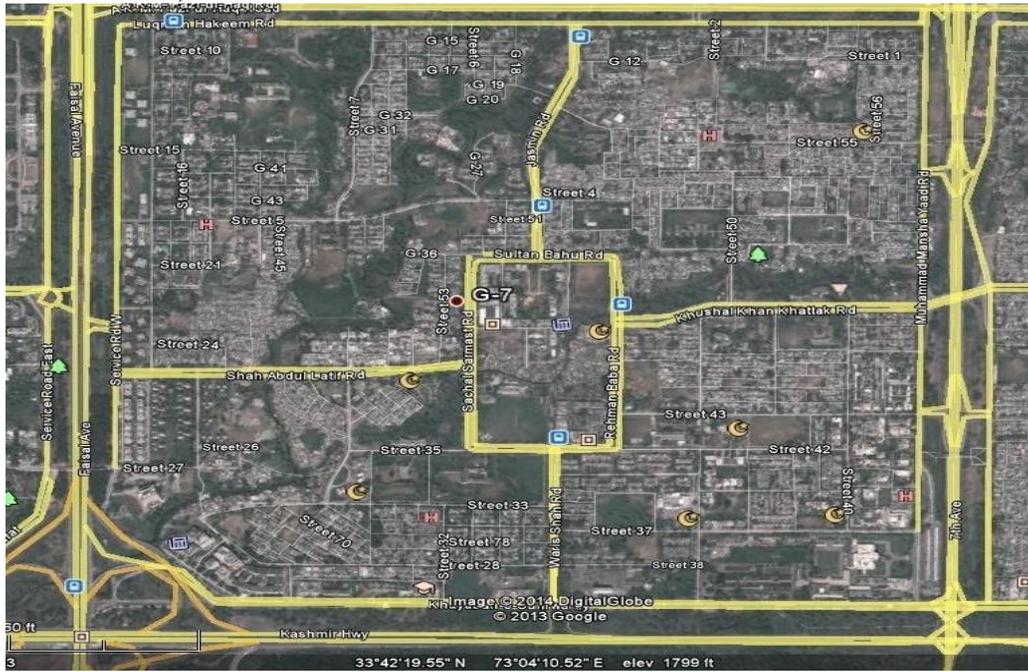
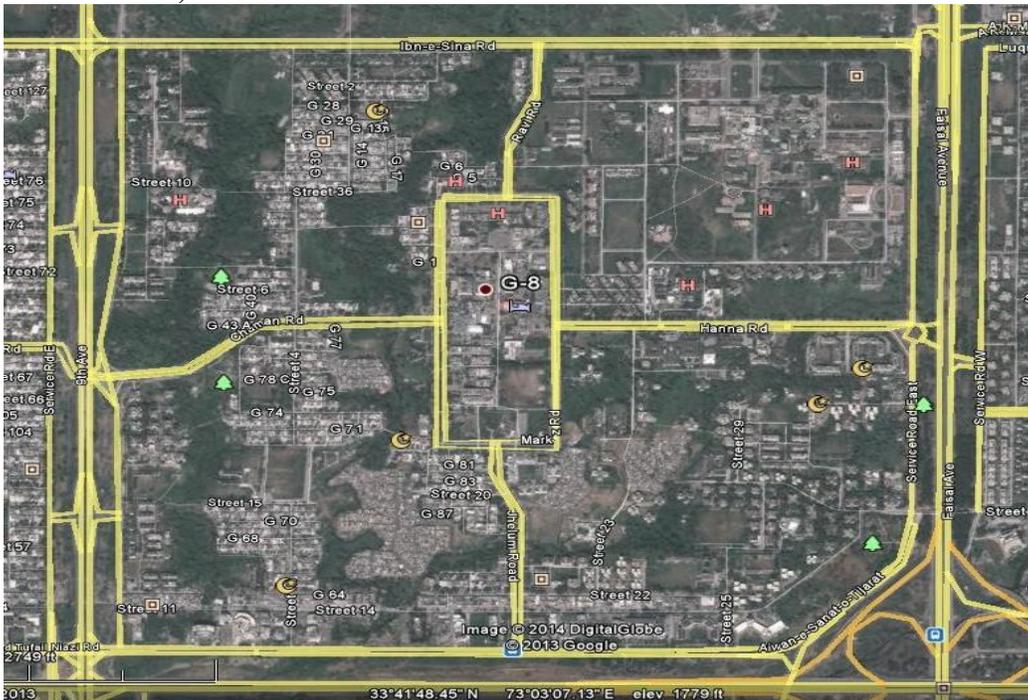
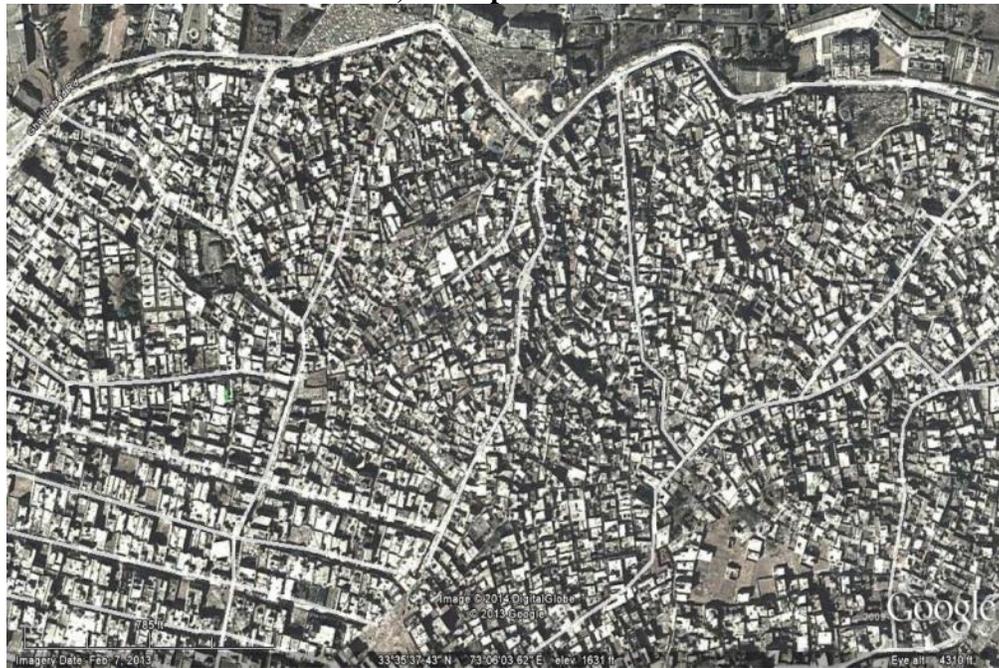


Figure A2: Sector G-8, Islamabad



**Figure A3: Rehmatabad and Afzal Town, Rawalpindi**



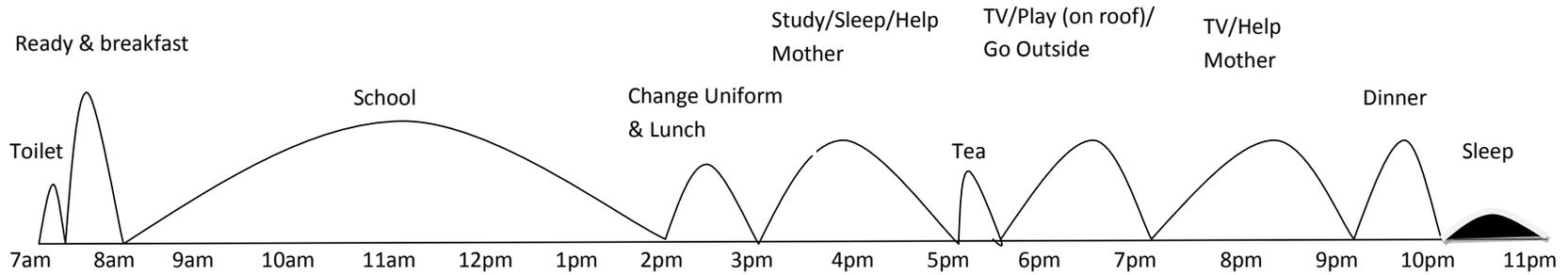
**Figure A4: Satellite Town, Rawalpindi**



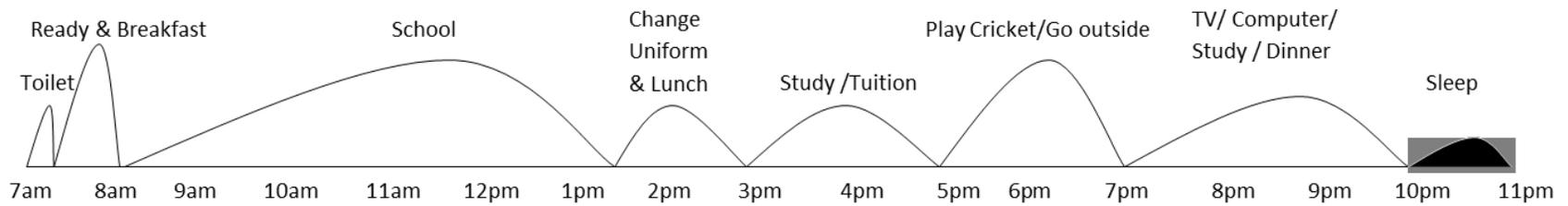
## APPENDIX B: STYLIZED DAILY AND WEEKEND ACTIVITY CHARTS OF GIRLS AND BOYS

Figure B1: Daily Activity Charts of Adolescent Girls and Boys in Summer

Adolescent Girls Daily Activity Chart in summer



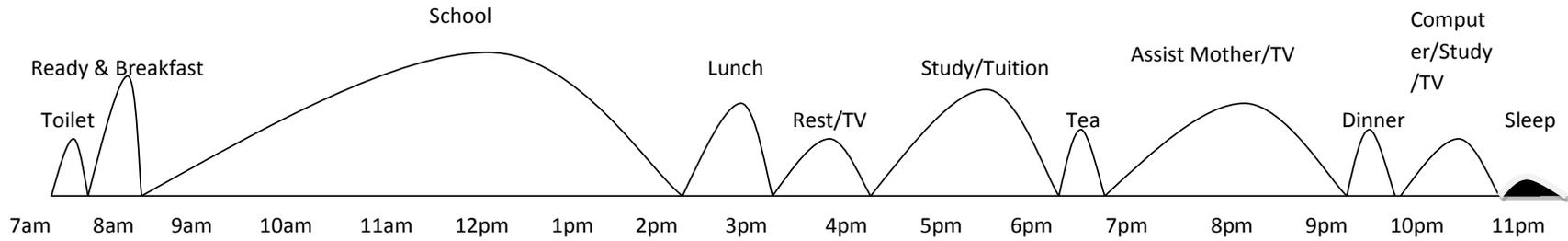
Adolescent Boys Daily Activity Chart in summer



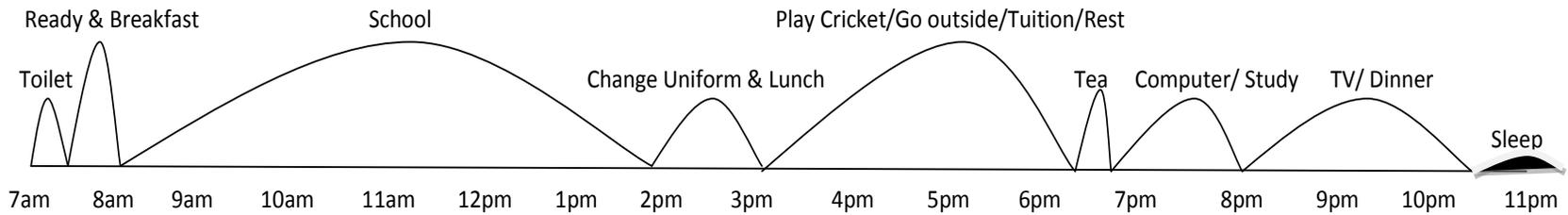


**Figure B2: Daily Activity Charts of Adolescent Girls and Boys in Winter**

**Adolescent Girls Daily Activity Chart in winter**



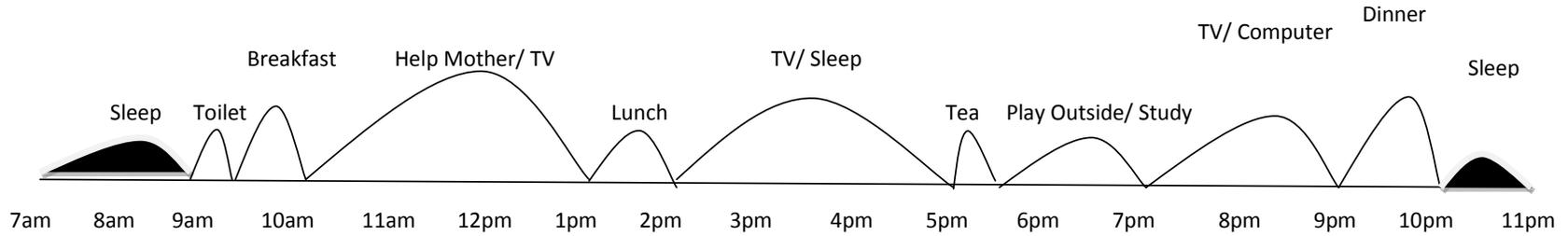
**Adolescent Boys Daily Activity Chart in winter**



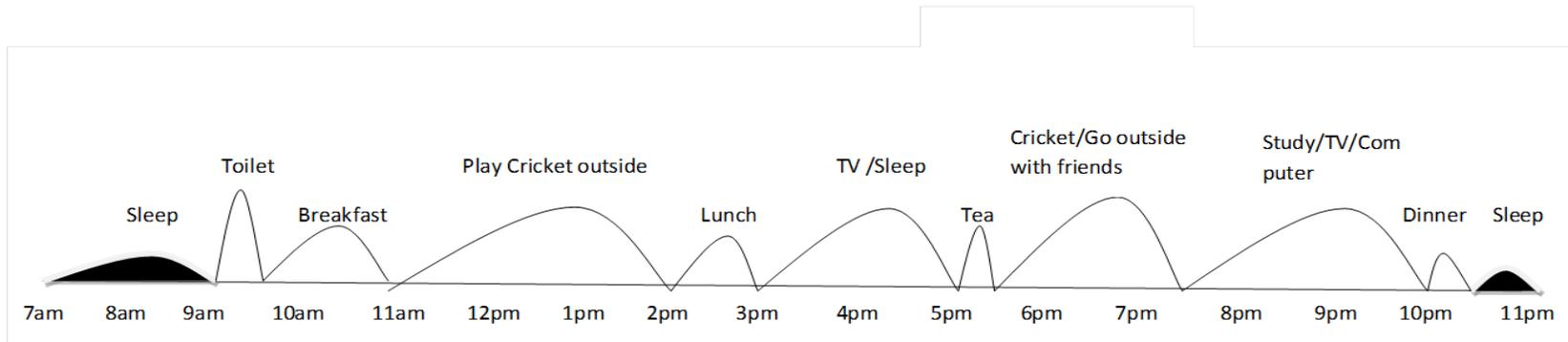


**Figure B3: Weekend Activity Charts of Adolescent Girls and Boys in Summer**

**Adolescent Girls Weekend Activity Chart in summer**



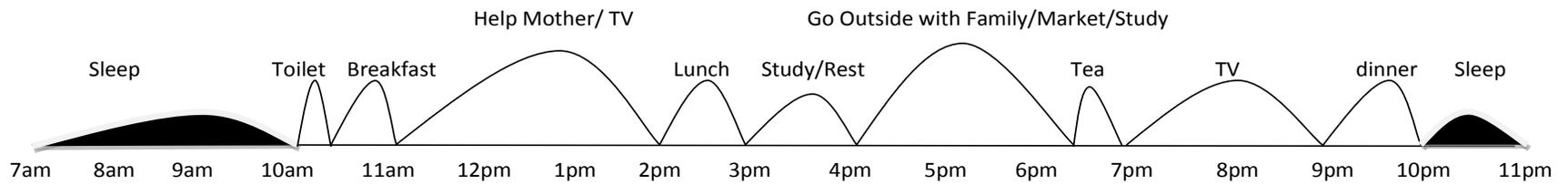
**Adolescent Boys Weekend Activity Chart in summer**



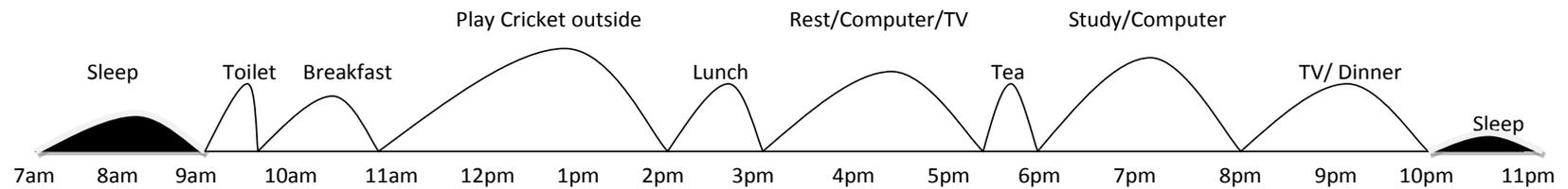


### Figure B4: Weekend Activity Charts of Adolescent Girls and Boys in Winter

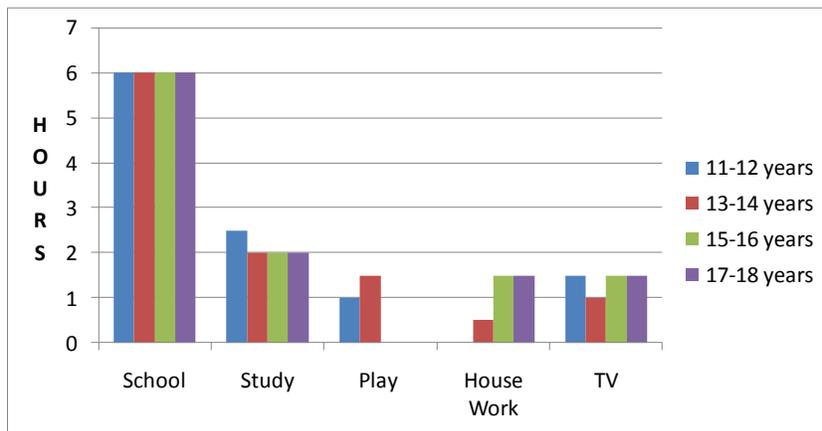
Adolescent Girls Weekend Activity Chart in winter



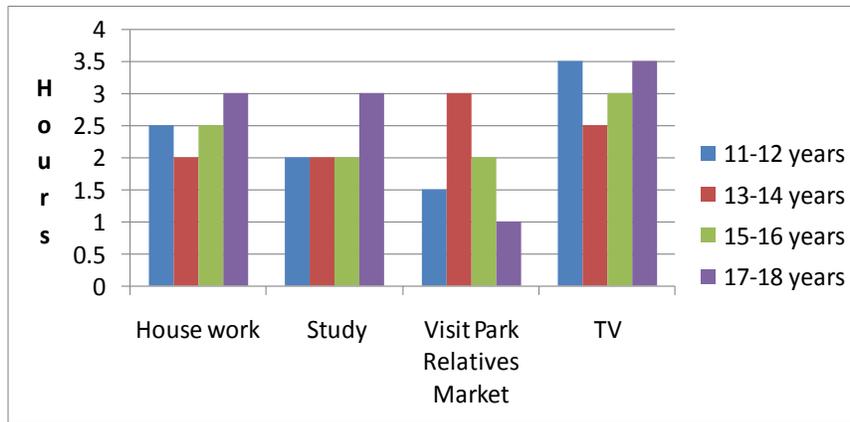
Adolescent Boys Weekend Activity Chart in winter



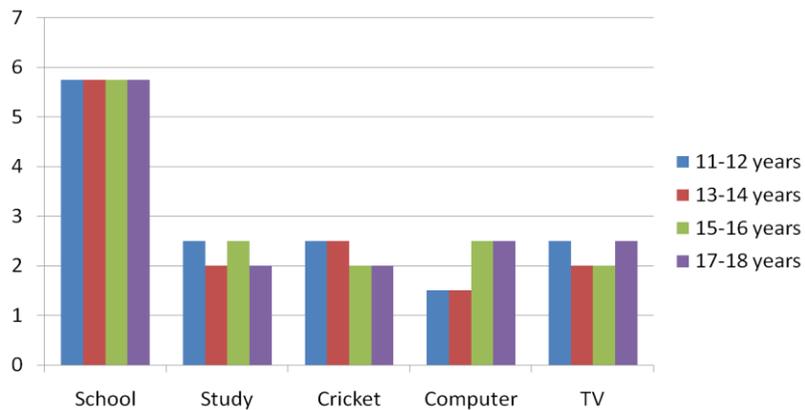
**Figure B5: Daily and Weekend Activity Graphs of Adolescent Girls and Boys by Age-Group**



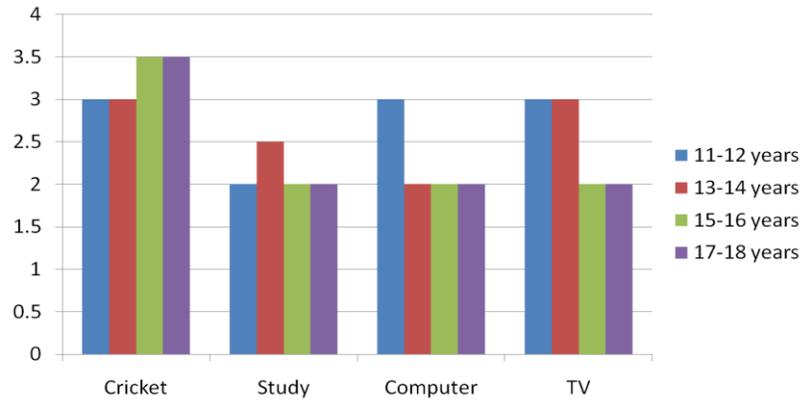
**Main Daily Activities of Girls by Age-Group**



**Main Weekend Activities of Girls by Age-Group**



**Main Daily Activities of Boys by Age-Group**



**Main Weekend Activities of Boys by Age-Group**

## APPENDIX C: KEY QUOTES FROM FOCUS GROUP DISCUSSION WITH PARENTS AND GUARDIANS

### At Apsis School, Afzal Town and Rehmatabad Rawalpindi on September 09, 2013:

“In our locality, most people live in rented accommodation, income is a problem, and we cannot afford to visit parks frequently”, a Father;

“There is no open space in our locality for a park. In a neighboring locality, people have constructed a boundary wall around an open space so that children can play safely. It is a good attempt that we could follow”, a Father;

“More than one family lives in one dwelling unit here. This makes it difficult for the girls even to go to the roof top for play”, a Mother;

“Girls cannot play on roof tops because the next door boys taunt them with loud music”, a Mother;

“My girls can play independently only during the summer holidays in our home village”, a Mother

“The police are not helpful even in the worst situation of teasing”.

“Yes, if the school management takes the responsibility for supervision, we can allow our girls to play after school hours in a ground elsewhere (as the school has no open space)” – a consensus response from Mothers;

“Who will take their responsibility for house work if they play after school hours? The school management should also consider carefully before taking the responsibility for our daughters. The record of schools after mishaps is not impressive” – a dissenting Father;

### At Bright land School, Satellite Town Rawalpindi on September 13, 2013:

“No, we cannot permit our daughters to go to parks because of the increase in crime and eve teasing” – Parents;

“Addicts often keep sitting in the parks in Satellite Town”;

“The park is located across the main road and this creates the risk of accidents”, a Father;

“The only outdoor recreation for girls is walking to school and back with their mothers”.

“Girls feel depressed remaining at home all the time, and have eye sight issues from extended time on the computer”.

### At IMCG G-8/4, Sector G-8 Islamabad on September 18, 2013:

“Yes, there is an issue. We don’t allow our children, especially girls, to go to the parks. They ask but we cannot allow them to go alone”;

“Society is not healthy enough for our children”!

“The concept of right and wrong, and respect for others, including for girls, should be taught from early childhood.”

“Don’t restrict girls from morning to evening to the school campus. Girls should experience different spaces for different purposes to enhance their self-confidence”, a Mother with reference to the proposal for play facilities at school.

“Yes, girls have the right to grow and go forward, and need the support of family and school”.

“All problems can be resolved if we collectively work for a better society”.



“Education must be available for all. An illiterate mother cannot teach checks and balance to her children”;

A Family Park is a better option than a Ladies Park”, a consensus outcome after discussion.

**At IMCG G-7/1, Sector G-7 Islamabad on September 27, 2013:**

“Changes to the sector’s development plan, such as occupation of green verges (by the ISI), the insertion of through roads and allowing hotels to be set up, have constricted and cut-off the parks. No one can allow their daughter to go there now”, a Father;

“Fathers don’t have enough time to go out with their children frequently. That is the main issue”, a Father;

“Another trip to the school in the evenings would be very difficult. The play facility should be provided within school timings”, a Mother;

“The most important thing for children is their studies. We are illiterate, but studies are the top priority for our daughters”, a Mother.

## APPENDIX D: SCORE SHEET OF PARKS ASSESSMENT AND PARTICIPANT OBSERVATION

**Table D.1: Score Sheet of Parks Assessment**

CFS Criteria and Indicators	Ayub Park		Nawaz Sharif Park		Fatima Jinnah Park		Lake View Park	
	CFS	AGFS	CFS	AGFS	CFS	AGFS	CFS	AGFS
Safety:								
No hazards, such as steep slopes, falls, pits	3	3	3	3	5	4	3	4
No incompatible use, e.g. vehicle ingress	4	4	5	5	5	5	2	3
Security:								
Guards	4	3	4	3	4	2	4	3
Surveillance, clear views for parents	4	4	3	3	4	3	3	3
Comfort:								
Seating (benches, grass areas), shelters	4	3	5	5	4	3	4	3
Shady trees	4	4	5	5	3	3	4	4
Facilities:								
Play fixtures, well maintained	4	4	3	2	5	2	4	3
Toilets, clean, well maintained	3	3	3	3	5	3	2	3
Access:								
Safe pedestrian access without severance	3	2	4	3	3	3	3	3
Public transport & signposted routes	4	4	5	5	5	5	4	4
Environment:								
No open burning or effluent discharge	4	4	2	2	4	4	2	2
No strewn garbage	3	3	2	2	5	5	3	2
Ecology:								
Moderating micro-climate and stream run-off	3	3	1	1	3	3	4	3
Enhancing local biodiversity, no alien species	3	3	3	3	3	3	3	3
Education:								
Fun opportunities	3	3	1	1	5	3	3	4
Learning opportunities	3	3	1	1	4	1	3	3
Total	56	53	50	47	67	52	51	50
Maximum	80	80	80	80	80	80	80	80
% of maximum	70	66	63	59	84	65	64	63

Notes: Score 1 (low) to 5 (high), CFS = Child-Friendly Space; AGFS = Adolescent Girl Friendly Space

**Participant Observation at City Parks**



**Ayub Park**



**Nawaz Sharif Park**



**Fatima Jinnah Park**



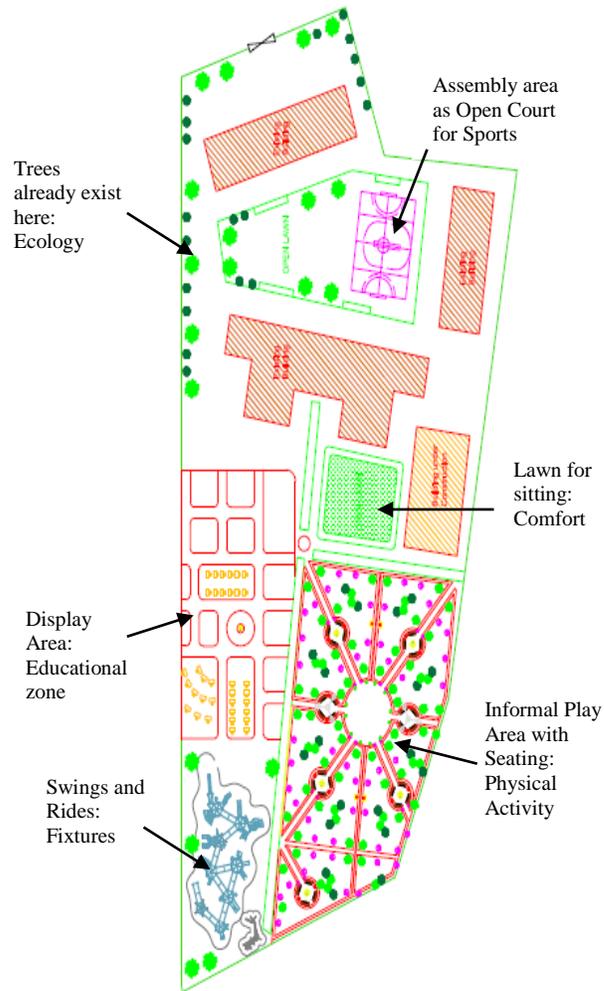
**Lake View Park**

# APPENDIX E: LAYOUT PLANS AND DESIGNS FOR ELICITING CHILDREN'S PREFERENCES

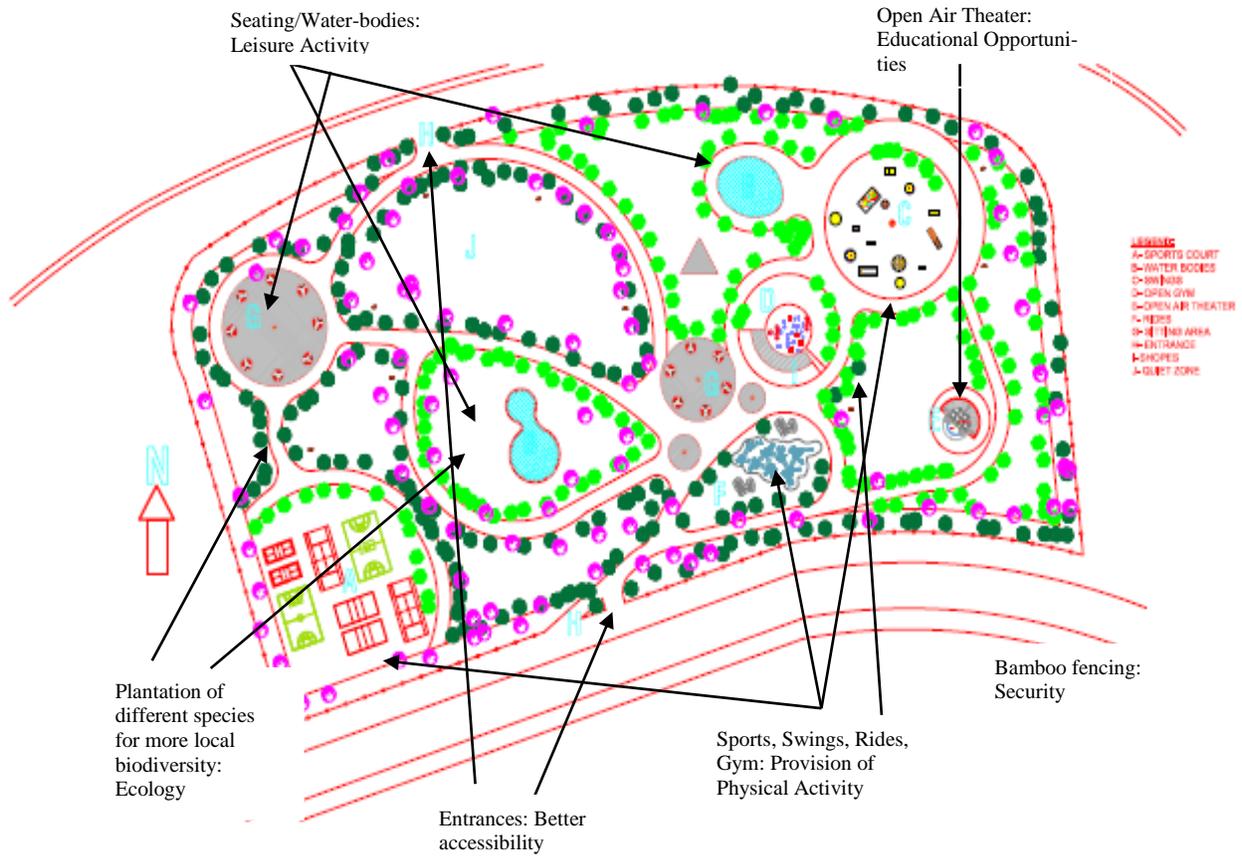
Figure E1: Proposed Plan for Schoolyard at IMCG G-7/1 Islamabad



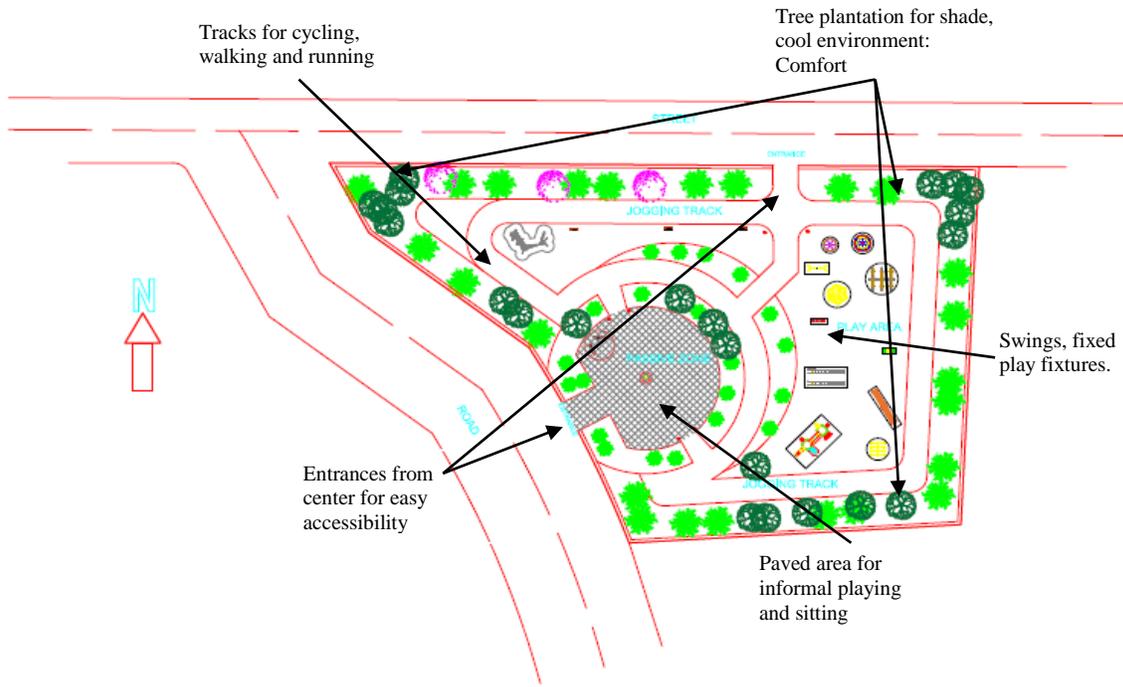
**Figure E2: Plan for Schoolyard at Government Girls High School, Afzal Town, Rawalpindi**



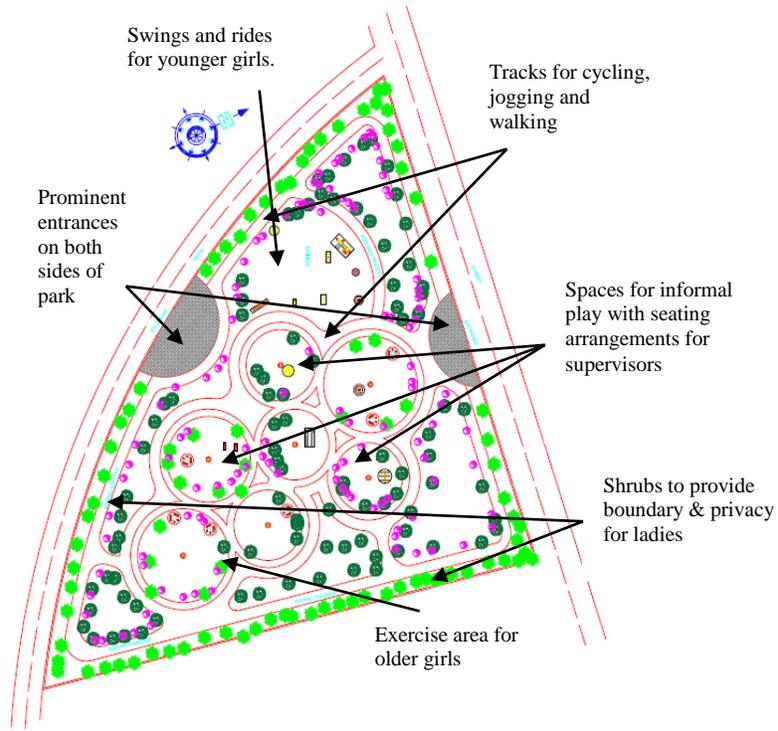
**Figure E3: Plan for Women's Section in Fatima Jinnah Park at F-9 Islamabad**



**Figure E4: Plan for Local Park at Sector G-8, Islamabad**



**Figure E5: Plan for Local Park at Block-B, Satellite Town, Rawalpindi**



**Figure E6: Views of Proposed Design Features for Schoolyards and Parks**



**Proposed Swings, Slides and other Fixtures**



**Proposed Gym and Exercise Features**



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