



The Role of City Government in Maintaining the Urban Greening in the Megacity Karachi, Pakistan

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Abstract: Cities are a part of the general ecosystem and are part of the larger bioregion. To preserve nature we need to integrate nature into cities, whether through green ways, wetlands, protected watersheds that provide a habitat for wildlife, or cultivated farm lands that preserve the generic variety of native species [I am not aware of cultivated farmlands that preserve native species]. Green areas contribute to maintaining and expanding the biological base for diversity that is essential for human survival. A well-planned urban greening program is part of securing a healthy sustainable future for the urban population of megacities of developing countries. This study focuses the megacity of Karachi in Pakistan. With a population of over 21 million, it is lacking in healthy recreational places. Overall Karachi has 1256 open spaces including parks, playgrounds, and green belts. This amount is inadequate for the 4.5 % per annum growth of the Karachi. This study provides an overview of the developed and undeveloped urban parks of the city and their town wise (?) development from 2001. The study also provides information about the role of city district government and local government in the development and maintenance of green spaces including parks in Karachi. Park encroachment by other departments or local people is burning issue in the city and is also discussed.

Keywords: City Govt., Parks and playgrounds, Megacity, Karachi, Urban green.

1. INTRODUCTION

Karachi, a megacity of Southeast Asia, is the largest city and main financial and commercial hub of Pakistan. The city is located on the Arabian Sea north west of the mouth of the Indus River. With a population of thirteen million (Census, 1998), it is considered as the 12th largest city of the world. Karachi is expanding very fast. In 1870 the urbanized area of Karachi district was 13 km², by 1971 the city had increased in size to 289 km². Karachi was defined as metropolitan in the Karachi Master Plan of 1974 with an area of 349 km² (Karachi Master Plan 1974-1985). In 1988 the Karachi Development Plan indicated that the city covered an area of 3,520 km². At the current rate of urban land conversion of about 6,780 acres (aprox. 2745 ha) per year (reference for growth rate), Karachi will soon outstrip its present divisional boundaries (Karachi Development Plan 2000). Being one of the most rapidly growing cities in the world, Karachi is facing several problems. One of the problems facing Karachi dwellers is the lack of green space around their neighborhoods. The area used for parks and playgrounds is insufficient, and the existing parks playgrounds are being used for purposes other than the intended green space and recreation that supports healthy life styles (Anwar, 2012). Moreover, a significant threat to the parks and playgrounds is the encroachment of these designated areas for inhabitants of the city, by land grabber and land mafia (Anwar and Breuste, 2007).

This paper analyzes the contribution of parks to healthy living, and the role of city and local government in controlling the negative use of parks. The investigations were undertaken on two different parks residing in areas of different socioeconomic status. Taleemi Bagh Park is located in Gulbarg Town, a low socioeconomic neighborhood-status neighborhood. Nisar Shaheed Park is located in an area of the Defence Housing Authority which is a neighborhood of high socioeconomic status. Thus, these two parks are in areas of very different socioeconomic statuses in Karachi, a megacity that is the highly segregated in terms of socioeconomic status (Anwar and Breuste 2008) (Fig 1). In 1998 the now defunct Karachi Municipal Corporation (KMC) had total 34 major parks, 14 developed and 20 underdeveloped. In contrast, the maintenance of 382 developed and 326 underdeveloped parks in all the other five districts of metropolis was the responsibility of District Municipality Corporation (DMCs) (Anwar, 2008). However land control developed and underdeveloped parks was under the jurisdiction of the (KMC). The condition and services provided by civic authority were dissatisfied? Do you mean “unsatisfactory”? (Dawn Karachi 1998).

2. MATERISL SND METHODS

Green structure of Karachi

Karachi has a massive demographic pressure due to industrial revolution and urbanization.

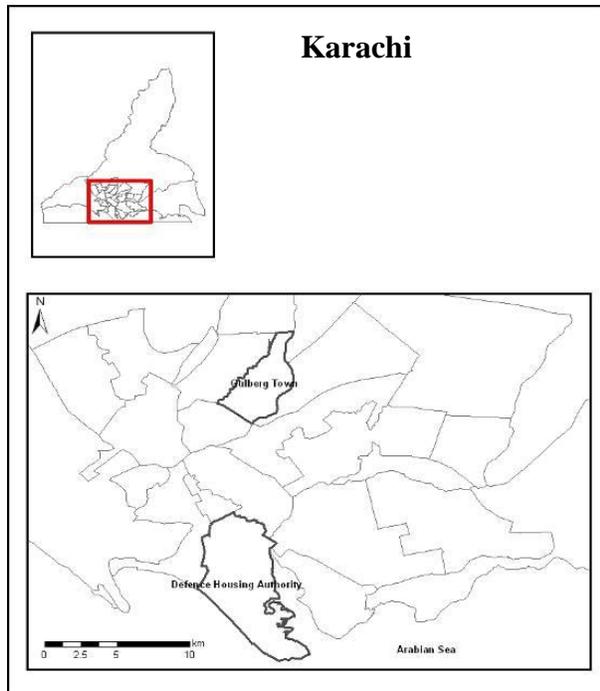


Fig. 1: Investigated areas of Karachi (from Anwar, 2006)

According to the Karachi Development Master Plan of 1951, parks and playgrounds, and even undeveloped open spaces, are the most economical means of providing healthy recreation for the masses of people (Anwar, 2008). In Karachi city, however, open spaces for citizens are most inadequate. The 1951 Master Plan indicates that “open spaces (Parks and Playgrounds) were only 561736 acres (227.42 ha) or 1.9 percent of the total area of the city. This comes out to 0.37 Acres (0.1498 ha) per one thousand people, much lower than the described standard of 3 to 4 acres (1.21 to 1.62 ha) per thousand people (Master plan of 1951). Due to planning violations done by the builders with the help of building department in Karachi these standards were completely ignored. The Karachi Development Plan 1974-1985 replaced replaced what_? the? After expiry Master Plan 1951. In this plan some standards and proposals were given for the improvement of provision of green spaces and public parks to Karachi dwellers. The standards proposed in this Plan for all recreation facilities, exclusive of beaches natural areas and other non-urban facilities, is 0.6 acres (0.243 ha) per 1000 population. The development plan justified this provision by indicating that this was double the existing space standard, and it is realistic given the climatic (what do you mean by “climate?”) conditions and budgetary limitations of Karachi. According to this Plan total open space required by 1984-85 would be 4,200 acres (1700.4 ha), an increase of 2,822 acres (1133.6 ha) over the present provision (**Table 1**).

Table-1 Cost proposed tourism and recreation program 1974-85

Year	Population (Thousands)	Area required Hectare	Developed Hectare	Capital Costs (Pk.Rs.Billion)	Operational Costs (Pk.Rs.Billion)
1973-74	4200	566.8	Nil	Nil	Nil
1974-75	4394	626.32	59.51	0.74	1.16
1975-76	4596	691.9	65.59	0.81	1.28
1976-77	4808	764.78	72.87	0.90	1.42
1977-78	5030	844.94	80.16	0.99	1.57
1978-79	5262	933.6	88.66	1.10	1.73
1979-80	5504	1031.98	98.38	1.22	1.91
1980-81	5758	1140.08	108.1	1.34	2.11
1981-82	6023	1263.97	119.84	1.48	2.33
1982-83	6301	1392.31	132.39	1.64	2.58
1983-84	6591	1538.46	146.15	1.81	2.85
1984-85	6900	1700.4	161.94	2.00	3.15
Total				14.03	22.09

Source: Karachi Master Plan 1974-85 Conversion rate of Dollar to Pak Rupees: 1\$=97.80 Pak Rs. (2013)

Also this report advised that efforts should be made to keep capital and operational cost to a minimum and that no special action is required in the recreation sector. The proposed space standards should be utilized in future land development projects.

In reality no recreational projects have been launched in past [x number of years] and the need of green spaces remains at their original states. On the expiry of the Master Plan 1974-85, work on Karachi Development Plan 2000 was begun by the KDA with the assistance of the United Nations Development Program (UNDP). However inconsistent data regarding land use resulted in the inefficient output of this whole exercise. In addition, the plan was prepared at a stage when much of Karachi’s civic needs were being taken care of by powerful interest groups rather than by the civic agencies (Anwar and Breuste, 2007). The role of these interest groups was never taken under consultation during planning process, except at a superficial level (Survey report, 2003). A steering committee was formed for the evaluation of the role of these interested groups. Due to mentioned reasons above, the entire set up created by Karachi Development Plan 2000 is now ineffective. There is another factor involved in its ineffectiveness that the steering committee could not meet for its approval. Many of its important provisions (such as not developing any more land until the over 200,000 vacant plots are built upon) are being violated (Survey report, 2003). After the local (City) Government Ordinance 2001, Karachi’s five districts and all Development bodies have been ceased. Now this new system Karachi became single district and this district has been divided into eighteen towns. These Towns are responsible for all development and land

use in their territory boundaries. As in the past no such considerations have been given to the green spaces in Karachi, on research done on this social issue and vital importance of quality of life in a megacity like Karachi (Sana and Anwar, 2008). The data gathered from the Parks departments of these Eighteen Towns are not reliable because the areas are not given or incorrectly given. Just the numbers of parks have been taken under consideration for this study. (Table 2).

Table 1: Provision of Green Spaces and Population of Eighteen Towns

Town	Population according to 1998 Census	Total No. of Green Spaces	Develop Green Spaces	Open Land	Percentage of Develop Green Spaces
Saddar	6,16,151	72	21	51	29.2
Landhi	6,66,748	205	108	97	52.7
Layri	6,07,992	24	19	5	79.2
Baldia	4,06,165	12	0	12	0
Orangi	7,21,694	38	4	34	10.6
Shah Fasaail	3,35,823	36	26	10	72
Malir	3,98,289	35	24	11	68.6
New Karachi	6,84,173	222	30	192	13.5
North Nazimabad	4,96,194	66	44	22	66.7
SITE	4,67,560	69	43	26	62.3
Korangi	5,46,504	62	23	39	37
Gulshan-e-Iqbal	6,46,662	93	23	70	24.7
Jamshaid	7,33,821	66	0	66	0
Bin Qasim	3,16,684	20	4	16	20
Liaquatabad	6,44,074	110	76	34	69
Gulburg	4,53,490	90	80	10	88.9
Kaimari	3,83,378	9	3	6	33.3
Gadap	2,87,564	0	0	0	0
Total	9,412,966	1229	528	701	42.96

Source: Population Census Department/Parks Department, 2004

The provision of green spaces is the one of the deprived issue in Karachi. According to the Parks Department of Eighteen Towns (2004) Karachi has 1229 green spaces in all towns including all parks and play grounds, in which only 42.96 percent are developed and 57.04 percent open land. According to these statistics the green spaces requirement is high then the present provision. The over populated areas such as Liaquatabad, New Karachi, Saddar, they need more consideration for provision of equipped parks because the green spaces are too less for these areas. In general, the whole city is facing a scarcity of green spaces see (Fig. 2). For this study the most urbanized and highly populated part Gulberg Town (low income area) was selected for investigation of life quality and environmental quality. By making a comparison of life quality in Karachi city an outskirt area Defence Housing Authority was selected which is a high income area and not included in City Government jurisdiction. Because DHA is belonging to Armed

forces it has its own autonomous management body, which is responsible for all its future plans and development. The details of these two selective areas are given below.

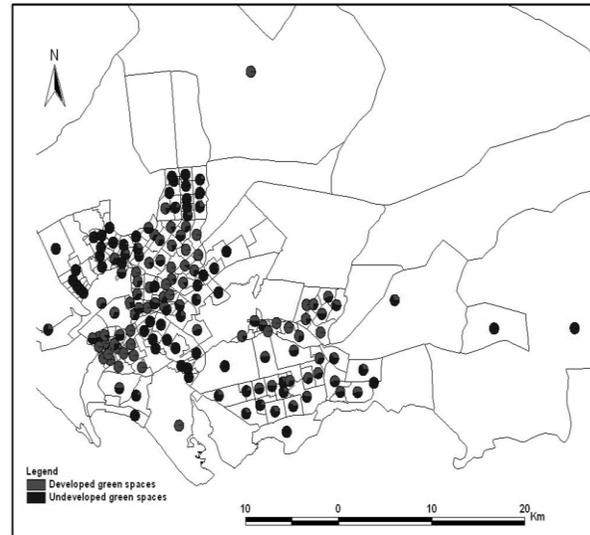


Fig. 2: Green developing condition –more detailed caption
Source: Anwar, 2006

Gulburg Town Karachi (low income area)

The Karachi Development Authority Scheme 16 is generally known as Mansoor, Federal “B” Area (Fig. 3 and 4) But after the City Government new ordinance 2001 this area is known as Gulburg Town. Gulburg town is located between the Layari River and the Gujro Nala, north of Liaquatabad. Scheme 13 was planned in 1976, covering a total area of 2833 acres (1147 ha) distributed in 22 Blocks of different sizes in which approximately 120.53 acres (49 ha) was allocated for parks and playgrounds which is 4 percent of the total area and its ultimate population according to 1998 census is 453,490. As Karachi district was divided into eighteen towns for better management of city. The Town is further divided into union councils as an independent body for controlling and managing the area. This study focused on union council 5 of Gulburg Town, including Naseerabad and Federal B. Area Block 7, 9 (Part) and 14. The population of this union council according to 1988 census is 69,563.

The status of this union council is quite unique in the sense that all parks and playgrounds are controlled and maintained by Gulburg Town expected Talimee Bagh Park, which is controlled and maintained by City Government directly. The planning of this whole scheme has been done on the neighborhood unit principle (Anwar, 2008). There are 119 neighborhoods, 3 of which are for high income groups, 7 for mixed and the rest for low income groups.

Each neighborhood was designed to contain at the center a large “open space” in which necessary vitals of the neighborhood i.e. Mosques, markets, parks, schools, playgrounds are located. One unique aspect of the planning of this scheme was that the mosques were invariably located within the parks or the central area of each Block (*Unpublished Thesis, 2003*). The plan provides for parks, open spaces, playgrounds at the rate of about 4 acres (1.62 ha)/ 1000 population. In Gulburg Town two main sports ground were provided in this town ship, although those are privately managed. Thus in the planning of this scheme Karachi Development Authority was provided open spaces on a very generous level, keeping the care of health and well-being of the inhabitants of this area. The open spaces for recreation according to KDA plan was 136 including all parks and playground (KDA Scheme 16 plan out line).

Defence Housing Authority (KDH)

The scheme of DHA Karachi dates back to March 1953, when a group of retired Armed forces offices established a Housing Society called the Pakistan Defence Officers Cooperative Housing Society

Karachi. DHA Karachi is situated in the southern part of Karachi, facing the Arabian Sea south (Defence Housing Authority Progressive report, 2003) (**Fig. 3 and 4**). It was established on a limited area for its inhabitants. In August 1980, the cooperative society was dissolved and Pakistan Defence officers Housing Authority was created through a presidential order. Since then the DHA has grown into one of the top most housing society of the country, offering a fine blend of life quality and modern living experience, and covering an area of is 8,797acres (3561 ha) (according to DHA Progressive report, 2003). Approximately 30.95 ha area is for parks and playground which is 0.9 percent of the total area see figure 4. According to the 1998 census, the population of DHA was 182,489. The status of this Housing Authority is unique in the terms of management of the area. The administration of this area is controlled by Defence Housing Authority itself. The planning of this area has been done phase wise (DHA Progressive report, 2003).

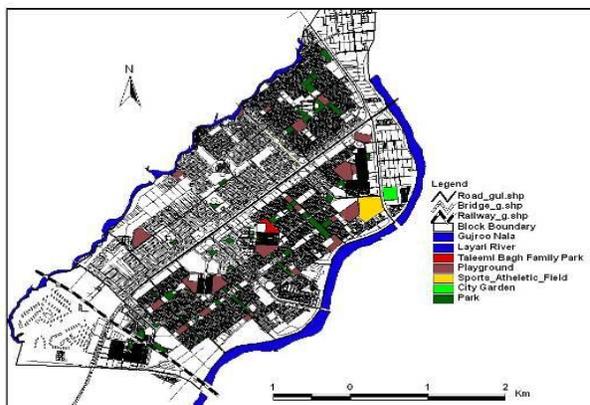


Fig.3: Gulburg Town layout

Source: Anwar, 2005

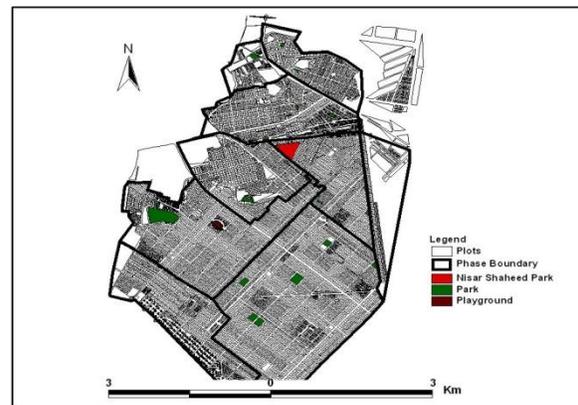


Fig. 4, Defence Housing Authority layout

Source: Anwar, 2005

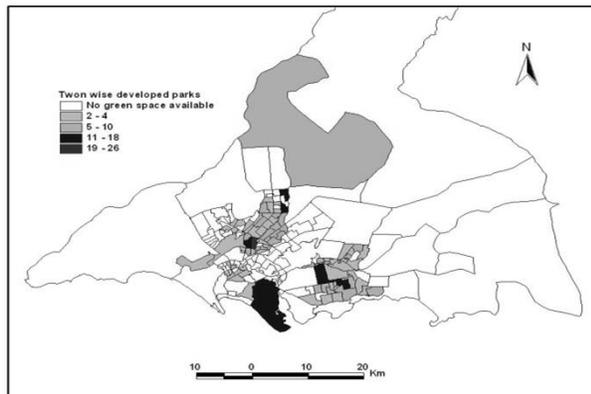
3. RESULTS AND DISCUSSION

Development of Parks

In 2001, city District Govt. of Karachi took charge of maintenance and development of green spaces and public parks and paid special attention to the problems of green spaces. They developed model parks, children parks, special people parks, and women and family parks for the residents of the city. In cooperation with local government, provincial government also played their role in this process of park development (Anwar, 2012). In 1998 Karachi metropolis was administrated by five districts and Karachi Municipal Corporation had a park development which supervised all district park offices (Park development, 2004). KMC in collaboration with Shahida welfare trust (Minister for local bodies, culture and sport welfare trust) initiated a scheme by the name of “adopt a park”

and by this 555 parks were acquired by several private organizations. (Dawn Karachi, 1998). Karachi Municipal Corporation computerized the records of 1177 green spaces including parks, playgrounds, and green belts, but this did not match in reality with original (Anwar, 2008). The main purpose of adopt a park scheme was to invite foreign park development agencies and organizations for better plans and designs. It also tried to develop public private partnership for better development of green spaces. The new developed parks still did not fulfill the requirements of increasing population of megacity Karachi but it can be said that it served somewhat better than past. In addition Defence Housing Authority and DHA horticulture department also contributed for the construction and maintenance of parks to give healthier (Fig. 5) and cleaner look to the

city and for their effective participation DHA was awarded 14 prizes in a competition hold by Karachi Horticulture society.



Source: Town Parks Department Karachi, 2004 Designed: Anwar, 2005

Fig. 6:Town wise developed parks

Issues of Park Encroachment in two areas of study

The neglected and decay of parks all over the city is apparent. There are several reasons for the encroachment of parks and open spaces in the city that includes political, religious, social etc. Influential people in Karachi had encroached parks and turn them in to houses. “The NEWS” reported such as issue that park cum eidgah, situated in Gulberg town had been encroached by a resident living in neighborhood by illegal fake lease documents. But no action was taken from concerned police, KMC administrator and concerned Park Departments. Palygrounds were being used as dumping yards and waste heaps and the practice is still going on in the city (Dawn Karachi, 1996).

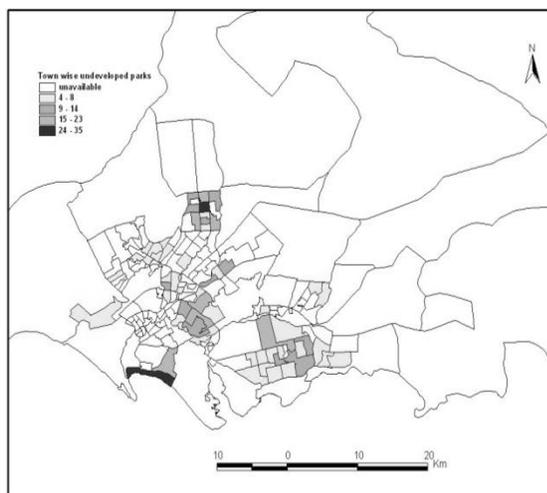


Fig. 7:Town wise undeveloped parks

Source: Town Parks Department Karachi, 2004 Designed: Anwar, 2005

In comparison of developed parks, Karachi still has many undeveloped parks and green spaces see

(Fig 6). A large number of parks, plots in almost all localities of Karachi are not developed. Karachi is still vacant or encroached open spaces. It also has many deserted and not furnished parks. The land for some major park sites such as Kidney Hill Park and Bin Qasim Park in Clifton is not developed due to litigation in concerned courts. (The News Karachi, 2004). According to a survey in 1994, Karachi was losing on average 10 square yards of open spaces every day. KMC had prepared a draft of “parks and trees Act” but KMC itself contribute to spoil the all major parks by given license to construct shops all around them. Many amenity plots meant for the development of Parks have been converted into marriage halls or housing complexes by violation of the rules and regulations. The playgrounds have also been changed in to garbage dumps. Thus there is a need to protect open spaces earmarked for parks and playgrounds if the city is not to choke on the sheer bulk and density of its frenzied growth. (Hasan and Mohib, 2003).

Role of Municipalities and local government in controlling encroachment

Karachittes today still have very few open spaces to breathe fresh and enjoy. After the defunct KMC from 2001 the city district government of Karachi made a lot of effort to provide the citizens healthy amenities (Anwar, 2008). They did a lot to recover land from encroachment and from grabber and land mafia, reshaping and uplifted the deserted parks and introduced model parks into 11 towns. Local government renovated parks for women and children, but still a has lot to do in this regard. But this progress did not get the excellence because the corrupted staff and back ships are still there in the concerned departments. There are reports that there were about eighty million rupees earmarked for parks and gardens in the KMC’s annual budget that were diverted to other purposes (Dawn Karachi, 1995). Green spaces are essential to relieve the environmental stress of urban life. But parks and green spaces always tell the usual sorry tale of indifference and avarice that characterizes so many aspects of civic administration. They are either converted from amenity plots to other categories for favorable considerations, or die a natural death, burying themselves in garbage and weeds. Every inch of land in Karachi becomes prey to the profits inherent in housing development schemes, and commercialization. The horticulture resources of the KMC are better viewed in the beautifully maintained official residences of its top brass than in the small humble parks that ought greenly to dot the city, improving the quality of life for common citizens. In 2001 city District Government of Karachi paid special attention to providing and improving the green spaces in the area and created model parks, Children Park and special people parks (Anwar, 2008).

4. **CONCLUSION**

Neighborhood parks in Karachi are facing declining use due to their deteriorating condition and lack of maintenance. This dilapidated condition has led to a negative public perception towards the parks. Clearly, this situation needs to be improved. Before the renovation of neighborhood parks can proceed, it is crucial for landscape architects to understand the factors influencing potential park participants, particularly their needs and preferred activities. Understanding these questions is important, not only for fostering greater use of neighborhood parks, but also for planning the development of other parks in Karachi on a neighborhood by neighborhood basis.

This study is a starting point for increasing knowledge of patron behavior, park design and planning, and landscape architecture in Karachi. Urban greening can address the concerns of urban planners by reducing the risk of floods and enhancing the opportunities for a healthy environment of the area by improving the climatic quality of the area. Such urban parks can also provide important places for economic activities and good means of earning for the inhabitants. By keeping in view all the benefits of urban greening it is very important to take initiative for the planning and development of parks in Pakistan. The study concludes that local government can play an important role in stopping the negative use of these valuable recreational places, as well as stopping the encroachment in Karachi. City district govt. is playing an admirable role in this regard.

In addition to these significant findings and their implications for the planning, urban design and the renovation of neighborhood parks is very necessary. There are many other factors related to park use and preference. Further researches must explore these factors, consider whether they are relevant, and explore their implications for park and open space design in Karachi. However, it is important to understand that the factors vary from place to place. But neighborhood parks are strongly important for this mega city of Karachi, they provide peace, health, socio-culture opportunities in their proper utilization. More over in- depth understanding of why people prefer to go to certain places would cause more effective, landscape architect, management of these places.

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