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Classification and Standardization of Parks North Nazimabad Town- Karachi, Pakistan

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Abstract: North Nazimabad Town, which is part of the erstwhile planned national capital city, still exhibits reminiscences of planning. However, Karachi now having the status of a mega city with explosive population is facing serious pressure on its infrastructure and suprastructure inclusive of open green spaces. The problem at hand, however, is the increasing awareness of the advantages of open green spaces not only among the educated urbanites but also the not so-educated neo-urbanites. Of equal significance is the fact that in the post modern era when the developed world is highly concerned about environmental issues and the concept of Urban Forestry is gaining popularity, our backward stance in this regard is especially alarming. The present work being a pioneering academic effort in this field in Pakistan is meant to focus on the urgent environmental issue hence will facilitate planners, politicians and environmentalists by providing information of the contrast between postmodern values and existing conditions in areas of Third World countries. We should put our open green spaces in order before the dawn of any major catastrophe. Classification and standardization of parks of North Nazimabad Town shows that they can be classified on the basis of the criteria of size and some local level indicators but they fall short of international standards on some important parameters e.g. radius of service area, minimum accessibility from residential area, character and extent of development and maintenance etc. By a stretch of parameters consistent to our part of the world a classification and standardization has been put forward. However, the alarming conditions of our urban green spaces are a cause for much concern especially in view of the mounting environmental awareness among the masses even in third world countries which demands urgent improvement both in the quality and quantity of parks and open green spaces.

Key words: Classification, standardization, environment, recreational facilities, open spaces.

INTRODUCTION

Classification or the grouping of phenomena into classes is a basic step in most sciences and highly prevalent in geography which uses an enormous range of classificatory systems. The present classification of parks falls in the category types of extrinsic and polythetic. Standardization according to the Free Dictionary is 'the act of adjusting something to match a standard' and in this study some internationally accredited standards have been taken into consideration, which have to some extent successfully served the purpose.

Urban Open Green Spaces are an important agent contributing not only to the sustainable development of cities but are considered as one of the most critical components in maintaining and enhancing the quality of life especially of urban communities (Smith, 2001; Pacione, 2003). Concern for our environment and access to parks and open spaces is not frivolous or peripheral; rather it is central to the welfare of peoples body,

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"mind and spirit" (www.tpl.org/content-documents/metrogreen3-benefits.pdf). It is one of the essentials of life. Parks, recreation and open-space planning emerged as antidotes to the unhealthy city, providing access to cleaner air, nature, and open space (Ulrich *et al*. 1991; Hunt *et al* 2000; Frumkin, 2000; Freeman *et al.* 1998). Cities of Third World countries are however becoming increasingly over populated and polluted hence the pressure on open green spaces, if they are fit be so called, is increasing manifold.

Research work related to parks are plentiful in U.S.A., England, Japan, Europe, Australia, etc., e.g. the study on Health, Well-Being and Open Spaces (Morris 2003) Park and Health (Wold and Hendry, 1998; Ulrich R.S. and Parsons 1992; Ulrich 1979; Sooman and Macintyre 1995). However, there is a dearth of work of this nature in Pakistan, as also other Third World Countries. Study of Parks as part of urban recreational facilities, social and economic necessities; necessitate this Classification of Parks as a pioneering study in Pakistan. Where there are yawning gaps between the standards of living and attention towards recreational facilities needs arduous efforts.

Turner, 1998 states that 'towns need a great diversity of public open space types'. The lists of open spaces discussed by him include 'commons, municipal parks, sports parks, squares, plazas, public gardens, village greens, national parks, private pleasure gardens and festival parks'. Walmsley, 1995 asserts that Park Systems can have a vital role in shaping cities by laying out patterns in advance of urbanization. A number of research work by Ahern, 1995; Chadwick, 1966; Fabos, 1995; Fabos and Ahern, 1995 have worked on greenways as a planning strategy, parks in towns, uses and potentials of greenways, the planning of open space according to population standard, etc.

There are a number of classifications of parks put forward by a number of institutions all over the world. The Park Recreation, Open Space and Greenway Guidelines, 1996 is a principal reference source and is widely used for classification of urban parks into categories, e.g. that of Houston Parks (http: www.housetontx.gov/parloo/images/GUIDEL) has put forward a Park Classification System which is a 'general framework intended to guide open space and public facilities and also to assist in the development of public and private land management plans by grouping parks according to certain common typical characteristics'. Such a classification has been augmented by State and Federal Park areas within Fairfax County boundaries. (www./fairfaxcounty.gov/parks/plandev/downloads/parkclassifications.pdf)

In 1996, the Geneva-based International Organization for Standardization released its ISO 1400 Guidelines for Environmental Management Systems (EMSs). An EMS performance is an industry-based management system, by which an organization controls the activities, products and processes that cause, or could cause environmental impacts, and in doing so, minimizes the environmental impacts of its operation (Bronson and Noble, 2006).

Whilst there are publications, such as Green halgh and Warpole (1996), Welch 1996, and LGA (2001) which provide guidance and information on managing public open space, a further initiative is ' Greening the City' introduced by the government in 1995 to advocate green areas in towns and cities. A good practice guide emerged (DoE 1996) that explored the benefits that greening of urban development could provide in addition to visual improvements.

Basis of Classification and Standardization:

In the present study as the classification and standardization of parks is rather in its gestation stage an effort has been made to put forward a classification based on selection of certain indicators on the basis of local development standards. These may be called 'performance indicators' which tend to quantify standardized information by which progress towards efficiency and effectiveness objectives maybe measured (Trewin, 2001). Cobb and Clifford (1998) suggest that indicators need to be able to measure quality as well as quantity of outcomes. Auclair and Gunter 2002 state that 'the purpose of indicators is to assess conditions and trends in relation to goals and targets and to indicate if objectives have been recorded or are likely to be reached. Good indicators allow policy makers to anticipate future trends; prepare early warning information, measure the impact of policies, identify priority issues and problems, allow for comparison of places and situations at one point in time and across time'. Consistent with these guidelines and constraints in Third World Countries classification and standardization has been based not only on size of parks but on their maintenance and development levels as well, although these levels and parameters do not match those of developed countries.

Research Methodology:

Selection of Indicators:

In what follows an attempt has been made to select a set of indicators suitable for the purpose of showing quality, standard or ranking of parks keeping in view the aforementioned principles. Following are some of

the indicators selected to assess the maintenance levels of parks and have specially been discussed as they reveal the prevalent local conditions, thoughts and values, some of which are typically peculiar to our part of the world.

- Size of Parks- Size of parks is an important criterion for classification and standardization as is apparent from a perusal of the classification put forward by the Park Recreation Open Space and Greenway Guidelines, 1996 which is a principle reference source for such works and which uses size of parks as a major criterion. It is understood that the large parks have more facilities as compared to the smaller ones.

- Greenery - Parks are parts of urban open green spaces. If greenery is lacking they ought not to be called parks. People of all ages visit parks at different hours of the day and evenings with different objectives, primarily health objective. Since these open green spaces are meant for refreshment, greenery in the form of grasses, shrubs, bushes, creepers, hedges, flower beds, trees etc. which take in carbon dioxide and emit oxygen needed in plentiful for good health and vitality are an essential element of maintenance. It is also believed that walking barefoot on the dew soaked early morning grass is good for the eyesight. Some herbs and shrubs serve as first aid for injuries and must be present in parks.

- Boundary Wall - Parks take their name from the verb 'to impark' which means to surround (Turner, 1998) with a hedge, fence or wall. As such a protective barrier around a park is essential. The barrier may be in the form of an iron grill as is the case in most city parks, in the form of hedges as in neighborhood parks, or in the form of boundary walls in 'Parda' or 'Khawateen' parks (i.e. ladies parks in Muslim countries where privacy for ladies is of prime importance). These protective barriers are also essential for security purposes in general and for extra security of children as well.

- Gates - Gates are meant for security and preservation of maintenance and management. Parks are meant for the welfare of people; therefore, they should be well maintained. In view of the fact that urban areas are a melting pot of people from all parts of the country and all shades of living standards, life styles and social status, parks should not be negatively used. If parks are not protected and locked at odd hours they may become a breeding ground of delinquents, criminals, thieves and sundry unsocial elements. Gates are necessary to protect the greenery and vegetation from stray animals that may not only trample the plants but they may also use it as their fodder. Where literacy levels are so low flowerbeds and lawns have to be protected from vagabond gentry, too.

- Street Frontage - Street frontage is of great significance especially from the point of view of surveillance. However, in Third World Countries the reverse is the actuality as state security for such purposes and at such micro-level is not available. The pocket parks being in direct view of the nearby residences is open to direct surveillance by the residents as it is a matter of their personal interest, otherwise on the main roads the passer-by are so preoccupied with their own problems and for their own security reasons they prefer not to interfere.

- Cleanliness - Parks are lungs of urban areas therefore cleanliness is essential. If parks are devoid of greenery and dumped with garbage heaps or mounds of mud, sand and dung, they will be a source of stale air, a breeding ground of a multitude of germs and bacteria and have a negative impact on health. Presence of graffiti is supportive of the presence of antisocial elements, a feature very common in our parks.

- Lighting - Appropriate lighting in parks is essential not only from the security point of view, but also because in urban areas where majority of the people are housed in congested apartments, where people return late from offices and where load shedding is a regular routine, it is often a practice for families to visit parks at night. To prevent injuries and accidents and aid in tension free enjoyment, illumination is necessary. Darkness is found to foster social evils in our parks.

- Seating Arrangement - Presence of benches with or without canopies are essential especially for the aged population for whom resting at intervals of walking is essential or for the ill and ailing who come to parks for a whiff of fresh air and relaxation. In Karachi where osteoporosis and joints diseases are very common, seats are essential. It is also essential for small children to prevent them from bites of insects, worms, rodents and reptiles etc., which abound in our parks.

- Facilities for Children - Children are our asset for the future. The proverb 'All work and no play makes Jack a dull boy' demands that there should be adequate arrangement for children to play. Children in Karachi are found playing on the roads, which is one of the major causes of road accidents and must be avoided. Adequate play arrangement for children of all ages should be made in the parks in the form of swings, merry-go-rounds, slides, seesaws, climbers etc. while adventure sports for youth should also be arranged. Recent empirical research for the Children's Play Council (Gill 2001) indicated that over a quarter of children interviewed played in the streets. This is not only the case in UK but in Pakistan, Karachi as well where night matches of cricket played on the roads is a common feature.

- Jogging Tracks - Jogging or walking tracks are essential in parks. Since people are becoming more and more health conscious and pressures of urban society are the cause of ailments like hypertension, coronary diseases, diabetes etc. for which brisk walking is prescribed by medical practitioners, jogging tracks should be present in all parks. Increased access to open spaces has been linked to better physical fitness leading to decreased public health care costs, reduced social services and police/justice costs; as well as reduced self-destruction and antisocial behavior (NPS 1995).

- Facilities for Special Persons - Special persons need our special attention, much more than normal people. In parks, special arrangements of slopes for their vehicles or for climbing protected ropeways for walking etc. should be provided. Special seating arrangements, facilities of washrooms, drinking water etc. should be provided in parks. Special arrangements for playing should also be provided for Special Persons.

- Security Services - Security services in the form of watch and ward, rangers and security guards, gatekeepers etc. are needed in parks not only to prevent illegal entry but also to prevent illicit and unlawful activities in the premises as also to enforce rules and regulations, failing which parks and playgrounds become dens of criminal activities.

- Parking Facilities - Parking facilities for private vehicles whether they are cars, motorcycles, jeeps etc. are sadly lacking in Karachi and their need is being felt more urgently and acutely. Proper provision of terminals for cabs, buses and rickshaws should be made in order to provide space for private vehicles. Also proper use of parking space, curtailing wastage of space and security of vehicles at the parking lots should be ascertained.

- First Aid Centers - First Aid Centers are essential in parks. Parks are visited both by the young and old, healthy and infirm, normal and special people. Any type of accidents or casualties can occur at any time and preparedness for such emergencies is essential.

- Fire Fighting Facilities - Accidental fires and forest fires can occur anywhere, Fire is not only a source of light and energy, but a source of enjoyment in the form of crackers and fireworks and is a favorite pastime in our society, used not only on festive occasions but is a common form of enjoyment. Accidental fires can occur due to short circuits as well. The Fire Brigade provides fire-extinguishing services but emergency fire fighting facilities sadly lacking in our parks must be present in order to manage emergency situations.

- Lost and Found Facilities - Lost and found facilities should be present in all setups where people throng in multitudes. Children, the aged and even special persons are prone to be disassociated from their groups. Invariably there is a chance of their being lifted by child lifters, therefore in addition to other tasks, the task of security personnel should be to be on the alert and watch out for such type of mishaps, so that the misplaced people and property should be restored to their proper owners or claimants.

- Washrooms - One of the greatest problems not only in parks but also at all centers of tourist attraction is the absence of washrooms. It is one of the deterring factors of promotion of tourism and recreation in Pakistan. To wash-up is a basic human need and forms the base of Maslow's hierarchy of human needs along with other existence needs (Maslow 1954). Such a need can occur unawares at any time or place. Therefore, provision of such facilities is of prime importance, absence of which can cause a wonderful outing to be totally marred.

- Shades - Seating arrangements with shades and canopies are essential in parks for protection from the elements of nature. A sudden heavy downpour, a drizzle or scorching sunlight could be encountered unawares on a visit; therefore adequate arrangement should be provided.

- Dustbins - Many parks in Karachi are dumping grounds of garbage heaps and breeding grounds of flies and mosquitoes, scavenging dogs and crows etc. In order to maintain cleanliness in parks placing of dustbins with covers at intervals are essential so that the untrained public of our Third World develop some civic sense and parks play a positively hygienic role in our lives and health.

- Fountains and Ponds - Fountains and ponds are a part of the beautification of parks. They not only provide a visually positive impact but also have a cooling and soothing effect on our nerves and senses. The splashing of water droplets and lotus flowers in ponds give a heavenly feeling of elation and relief.

- Drinking Water - In Third Third_World Countries provision of potable drinking water should be made at all public places. Although, mineral water has become quite popular but poverty and low standards of living of the masses prevents them from squandering their hard earned money on water, therefore, free, plentiful and contamination free water should be made available at these public places. For the poor masses mineral water is a luxury beyond their reach.

- Maintenance - Although all the aforementioned indicators point towards maintenance, this last indicator specifically entitled maintenance has been taken because in all parks and playgrounds the whole area is not maintained. In some cases 100% of the areas are maintained while in others 50% or only 25% is maintained. Ideally the whole area should be maintained as urban areas are areas of great population pressure and every inch of land is valuable.

A Comparison with NRPA classification reveals that while this classification holds good, however in Pakistan, Karachi, parks and playgrounds are separate entities. The maintenance standard is comparatively poor, with negligible facilities, there is little consideration of street frontage which may increase visibility for surveillance; swimming pools or natatorium are totally lacking in these parks, provision of visually screen portable toilets has not been introduced in our part of the world, landscaping is generally of poor standard, fishing access sites (e.g. decks and piers) are lacking; horticultural centers are sadly lacking as also public works of art, save for a fountain or two; while provision of unique recreational activities are totally absent, only a variety of swings is available in these parks.

Field Survey:

includes Ground Truthing and Digital Photography. Ground Truthing conducted several times during June 2006 till April. 2007 to observe and note the selected parameters of maintenance of parks have generated all the requisite data.

Population Data:

Population data at UCs level extracted from District Census Report 1998, Karachi Central has formed the bases of comparative studies.

GIS Technique:

GIS considered to be the most powerful tool of the present millennium has been used for storing, updating, manipulating, analyzing, plotting and mapping of information retrieved. Measurement of total area and encroachment of parks has been extracted from Google Earth Satellite Imagery through GIS.

Analytical Method:

Z - Score Model:

The Z-Score Additive Model is an easy method for analysis of inequality and other related studies (Altman, 1968; Burke, *et al*. 2008, 2006; Huda, *et al.* 2007). The derivation of selected variables involves the transformation of data on individual variables into some kind of standard scores. This can be achieved in various ways including conversion into ranking and the standardization of the ranges, but the most common

method is to use Z-Score. The Z-Score is a linear transformation of the original data in such a way that its mean becomes '0' and its standard deviation becomes unity. For observation 'i' on any variable, the Standard Score (Z_i) is given by:

$$Z_i = \frac{X_i - \overline{X}}{S}$$

Where

X_i is the value for observation (i)

Xi = X – Xs

X is the value of variables, which have been formulated for the study

Xs is the specific standard for each variable in the study area (i.e. the highest value of the variable)

$\overline{X}$ is the mean of the specific standards

$$\overline{X} = \frac{\sum Xs}{n}$$

n is the number of observations

S is the Standard Deviation

$$S = \sqrt{\frac{Xs - \overline{Xs}}{n-1}}$$

This model has been applied in this project to measure ranking of parks. Firstly, the data has been converted into percentages and units i.e. variables. Secondly, all selected variables have been arranged in descending order (X).

Thirdly, highest value of each variable has been selected as specific standard for each variable in the study area (Xs).

Fourthly, the specific standard for each variable has been subtracted from the value of variables formulated (Xi).

Fifthly, the mean and standard deviation of the set of specific standards for the set of variables has been calculated.

Finally, Standard Score (Zj) has been calculated for each variable.

To remove negativity of (Zj) the values have been squared.

Fig. 1 shows the parks in the Union Councils of North Nazimabad Town.

RESULTS AND DISCUSSION

Classification and Standardization of Parks of North Nazimabad Town - Karachi, Pakistan:

A review of the reports on classification of urban parks at the international level has revealed certain features in common that most of the classifications have been made keeping certain basic criteria in mind e.g. area covered by parks, the radius of service area, the minimum accessibility from residential area, the purpose or general use, character and extent of development e.g. the Pocket Parks of Houston cover an area of less than 1 acre; Neighborhood Parks 1 to 10 acres and 5 acres optimum, Community Parks 5 to 50 acres (10 acres minimum preferable) Regional Parks 50 to 200 acres, Metro Parks more than 200 acres, etc.

The Fair Fax County Park classification gives the following categories i.e. Local Parks covering an area of 2.5 acres to less than 50 acres, District Parks are typically 50 to 150 acres, Resource Based Parks can take many forms depending on the setting and type of resources, Regional Parks serve multi jurisdictional constituencies. While the classification is comprehensive it is not mutually exclusive and some parks may fall within more than one classification. (www./fairfaxcounty.gov/parks/plandev/downloads/parkclassifications.pdf) The City and Regional Development Bureau in its current status of provision of city parks in Japan have outlined the Types of City Parks. According to the Japanese classification City Block Parks may have a

standard area of 0.25 hectare, Neighborhood Parks cover an area of 2 hectares, Community Parks 4 hectares, Comprehensive Parks 10 to 50 hectares, Sports Parks 15 to 75 hectares, Regional Parks at least 50 hectares etc. www.mlit.go.jp/english/2006/d-c_and_r_develop-bureau/03-parks-and-green/index.html

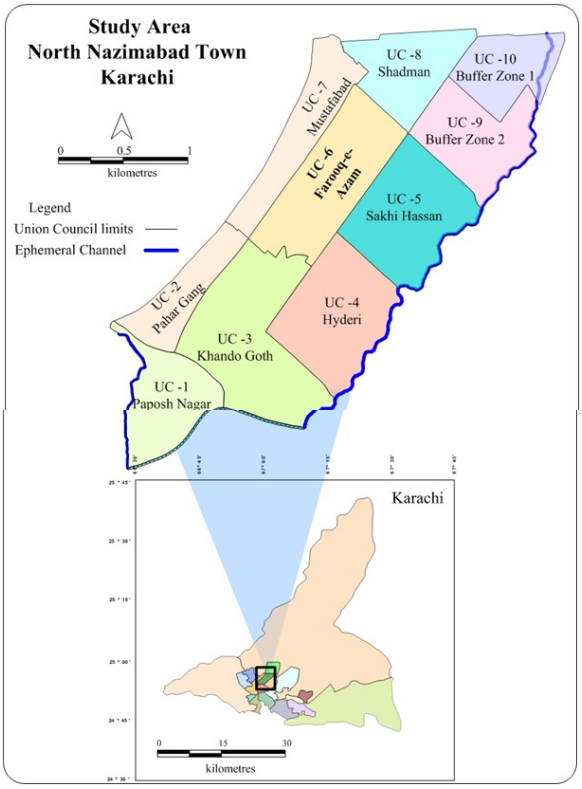

Fig. 1: Location of Study Area

In Pakistan, Karachi the Reports and Brochures published by different organizations show no standardization, e.g. The Zonal Municipal Corporation South in its brochure of Parks and Playgrounds by the Department of Parks and Recreation has given categorized information on Parks, Playgrounds/Stadiums, Nurseries, Fountains/Monuments, Plantations in (a) Roads (b) Roundabouts/ Triangulars, Children Parks/Corners etc. New Schemes and Sports Facilities; while the Parks and Recreation Department of DMC (i.e. Districts Municipal Corporation) and Town Municipal Administrations have followed the categorization of Developed, Partially Developed and Undeveloped Parks and Playgrounds. (ZMC, 2005).

In the present study parks of North Nazimabad Town have been classified into 4 size categories along with other selected parameters i.e. 5 acres and above, 3 to 5 acres, 1 to 3 acres and 1 to less than 1 acre. A comparison of these categories with NRPA and Japanese standard of classification has revealed that the largest category of North Nazimabad parks may be considered as Community or Comprehensive Parks. Daman-e-Koh Park which has been announced for construction over an area of 22 acres may fall in the Japanese category of Comprehensive Parks or Community Parks of NRPA classification. The parks in the category range 3 to 5 acres may be entered in the category of Community Parks according to the Japanese classification, as Community or Neighborhood Parks of the NRPA classification. The next size category of parks (i.e. 1 to 3 acres) falls in the Neighborhood Parks of Japanese as well as NRPA classification.

The smallest category of North Nazimabad parks i.e. 1 to less than 1 acre falls in the Pocket Park category of NRPA, but nowhere in the Japanese classification.

The parks of North Nazimabad town show greater correspondence to the NRPA classification, but some correspondence to the Japanese classification as well. Thus, a combination of both can be used for our present study. The largest size parks maybe designated Comprehensive Parks while the others may successively be designated as Community Parks, Neighborhood Parks and Pocket Parks.One drawback with the Japanese classification however is that the absolute area coverage for each category has been given although a range of area coverage would have been more suitable.

The Karachi Development Authority published a report on Open Spaces in September 1961. The survey was jointly conducted by the Municipal Authority, Playfields Associations, Private Associations, Local Forestry Officers and Department of Forestry, Government of Pakistan. This report has only categorized the status of Parks and Playgrounds under the Existing and Proposed heads and the Civic Survey of Open Spaces states that for North Nazimabad the Open Spaces proportion in the Layout Plan was 4.0 acres per 1000 estimated population (KDA, 1961).

The Report of the Karachi Development Plan 2000 under its head Recreational Facilities has noted that 'Inner-City Karachi lacks sufficient parks, recreational facilities and open spaces for the existing population' (KDA 1991). It also states that 'most of the KDA schemes are reported to have 3 to 4 acres per 1000 population' but the present study has revealed that this is not the case. This revelation is not surprising because it should not be forgotten that Pakistan is a Third World Country, where development is lagging far behind. The North Nazimabad Scheme was planned in 1953. However, even now after the passage of 54 years of initiation of the Scheme not only has the population exploded but the proportion of area of Parks to Layout Status 4.48% has decreased to 4.26 % i.e. a decrease of 0.22%.

According to the information by KDA based on the layout map, the total numbers of parks in North Nazimabad were 65 and playgrounds only 5. Ground Truthing has revealed that there are only 51 parks left and playgrounds have increased to 23. This number has increased by the conversion of 14 parks into playgrounds; 4 playgrounds have been constructed on plots for schools and 1 on land for ' goth' (i.e. small village). Taking a view of parks 3 out of the 51 parks present have been constructed on plots of land marked for public buildings, 2 on land for primary schools, 1 each on a plot for an institution and a hospital. Simultaneously 7 parks have encroached on land on plots allotted for apartments (3) places for worship (2) and other official building (2). This is in accordance with the Master Plan spirit of 1961 that 'the only way adequate space could be provided is by the cancellation of unbuilt plots and their conversion to open space' (KDA, 1961).

Standardization of Parks:

An insight into the Z-Score levels for different classes of parks on the basis of selected indicators has revealed that maintenance and development levels vary highly. On the basis of scores the parks have been standardized into high, moderate and low levels of maintenance and development. The following is an analysis of the same:

Comprehensive Parks:

Talib Chaman Park in UC 6 (Farooq-e-Azam) has all amenities and facilities not only for the people of UC 6 where it exists but also for all the people of Karachi who want to visit it. The reason for its maintenance is that it is a Commercial Park. Its maintenance is not only the responsibility of the city government but the amount, which is collected from entry fee, is also used for its maintenance. While the other parks of 5 acres and above like Fateh Park which is the second highest maintained park has no entry fee but its maintenance is not like that of Talib Chaman Park. Fig. 2 shows the maintenance levels of Parks 5 acres and above in the UCs of North Nazimabad Town.

Community Parks:

There is only one, Khalil Ibn-e-Arab Park in UC 6, which lies in the category of parks with area from 3 to 5 acres, well-maintained park. While New Park (Shafi Masjid Park) in UC 6 and Midhat Park in UC 8 are moderately maintained and low maintained respectively. Fig. 3 shows the maintenance levels of parks 3 to 5 acres in North Nazimabad Town.

Not only does the government maintain Khalil Ibn-e-Arab Park but the residents of the neighborhood also devote a lot of personal attention to them.

Neighborhood Parks:

Maintenance of small parks is much easier than that of larger or bigger parks because it entails lesser financial input.

There are many small parks in the area belonging to this category. These parks are specially very well maintained, as their area tends to decrease from 3 acres to 1 acre. Their maintenance also depends on the people residing in the surrounding houses who not only look after them but also spend their personal funds on their maintenance. Out of the 5 parks i.e. Umm-e-Huzaifa Park in UC 9, Ibn-e-Insha Park and Akhlaq Hussain Park in UC 1 and Baradari Park in UC 3 are well-maintained parks. The city government also takes interest in maintenance of ladies parks e.g. Khwateen Park in UC 5, because in Pakistan ladies are given preferential treatment and privacy of ladies and their recreation is given prior importance in Muslim countries like Pakistan. Fig. 4 shows the maintenance levels of Parks 1 to 3 acres in North Nazimabad Town.

Pocket Parks:

As already mentioned, smaller parks can easily be maintained than the larger ones. There are a number of small parks in the category 1 acre to less than 1 acre. Any deficiency in the parks can easily be controlled not only by the city government but also by the residents around the park. Collection of funds for their maintenance is mainly from the near by houses. Children Park in UC 5 is highly maintained as compared to Khursheed Begum Park UC 5, Khushboo Park UC 3, Khadija Park UC 6, Bagh-e- Batool UC 2, Khadija Park, Bagh-e-Ayesha and Hifsa Bagh UC 6, TikonaPark and Syeda Umm-e-Kulsoom Park UC 10. Fig. 5 shows the maintenance levels of Parks less than 1 acre in North Nazimabad Town.

Children Park is a family park, the reason for its being clean and well maintained. One notable feature is that the family parks can easily be kept well maintained as compared to other common parks because ladies parks have restricted visiting time e.g. from 5pm to 11 pm. Ladies are more careful about keeping the environment clean, while parks frequented by teenagers are more prone to damage and destruction and require more maintenance.

Among the parks less than 1 acre, which are well maintained, are Children Park UC1, Khursheed Begum Park UC 5 Bagh-e-Batool UC 2 Bagh-e-Aisha and Hifsa Bagh UC 6 Tikona Park UC 8 Syeda Umme Kulsoom Park and Delhi Tikona Park UC 10. This shows that the smaller, community parks are more well-maintained because they are managed by the local people, who take great interest as they are located in close proximity to their homes and it reveals their awareness and yearning for good environmental conditions.

The Urban Parks Forum 2001 has recently conducted a survey, which has revealed that “the condition of UK’s parks has been comprehensively assessed and for the first time a national overview of public park provision exists. The importance of Parks the Urban Parks Forum’s assessment study showed that generally urban parks in the UK (at least those controlled and run by local authorities are in serious decline. Park stocks are begging to become polarized with good parks getting better end poorer parks getting worse and in the most deprived authorities these trends are further exaggerated.

In the case of North Nazimabad Karachi, the smaller communities parks are better maintained because the local people, who take great interest at they, maintain them are in very close proximity to their homes.

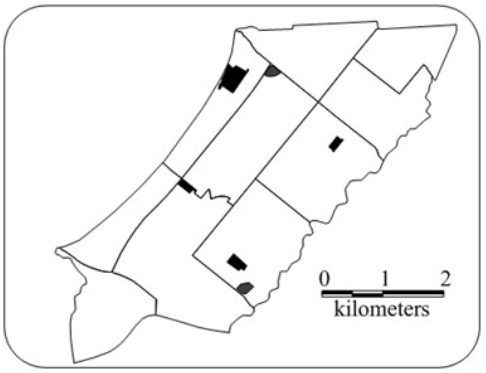

Fig. 2: Comprehensive Parks North Nazimabad Town.

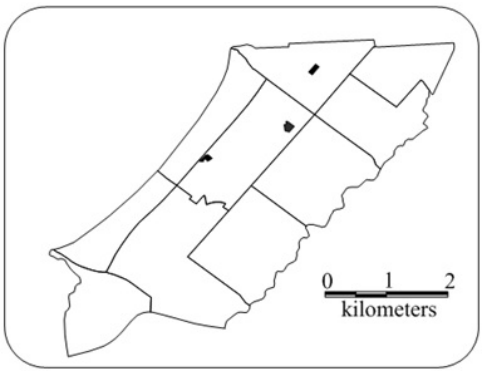

Fig. 3: Community Parks North Nazimabad Town

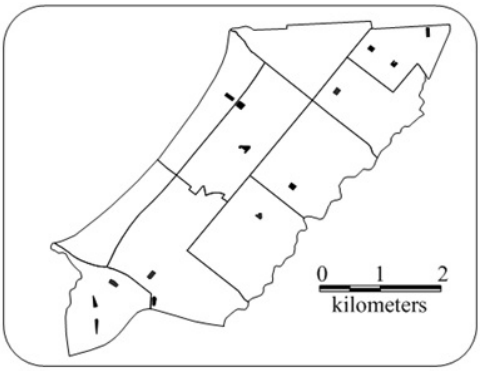

Fig. 4: Neighborhood Parks North Nazimabad Town.

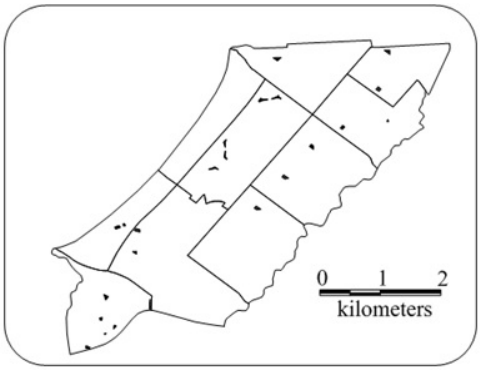

Fig. 5: Pocket Parks North Nazimabad Town

Conclusion:

North Nazimabad (Taimuria) KDA (Karachi Development Authority) Scheme 2 was located in the northeastern part of Karachi. This scheme of KDA was prepared during the tenure of KIT (Karachi Improvement Trust) and passed by the Government of Pakistan in 1953. This was the only planned part of the city, planned for the national capital. This was a highly spacious and beautiful scheme with roads 50 to 320 feet wide. This scheme was planned in 21 Blocks with all types of facilities in each Block. In this scheme plots varying in size from 200 to 3000 Sq. yards were laid out. It consisted of 11874 residential, 473 commercial and 202 amenity plots. It was meant to accommodate a population of 71244 people. (Siddiqui,1995).The population of this area now is 291078.

North Nazimabad Town formed in 2001 by the amalgamation of the aforementioned scheme, KDA Scheme No.2 and parts of Nazimabad and North Karachi recorded a population of 513969 in 1998, (GoP Census) is experiencing immense pressure on all its infrastructural and suprastructural facilities including the open green spaces. What is more important to note is that this town apart from some others is one of the top listing town with highest proportion of literate and educated people who are engaged in the quaternary and quinary occupational sectors and therefore, are very much aware of environmental parameters inherent with social, physical, mental and economical aspects of life.

Accessibility of the masses to the media has also made the not so educated urbanites aware of some of the environmental values. Especially having connections with rural areas, hence increasingly aware of the benefits of open green spaces in plentiful there, these neo-urbanites, semi-urbanites and migratory-urbanites add on to the pressure or demand for open green spaces.

The developed world is talking of Urban Forestry; therefore, in view of our backward stance and ever increasing awareness scenario of the populace at large the provision of these facilities to the exploding urbanites must be realized. Academic efforts in this field in Pakistan is meant to focus on the problems and facilitate planners, politicians and environmentalists of these modern and post modern values before the dawn of any major catastrophe. The classification and standardization of parks and open green spaces is an essential pre-requisite towards this aim.

Table 1: Ranking of Parks on the Basis of Selected Indicators by Z-Score Model

Nos.	Names	Composite Z-Scores	Ranks
UC4	Talib Chaman Park	29.36	1
UC5	Fateh park	23.77	2
UC4	Model Park Masjid-e-Noor*	60.75	3
UC7	Water Ammuesment Park	65.26	4
UC6	Model Park (Bagh-e-Zaibunnisa)*	72.65	5
UC3	Daman e Koh	72.65	5
Community Parks			
UC6	Khalil Ibne Arab	36.11	1
UC6	New Park (Shafi Masjid Park)	44.51	2
UC8	Midhat Park	63.84	3
Neighborhood Parks			
UC1	Khawateen Park	31.47	1
UC1	Umme Huzaifa Park	34.04	2
UC7	Ibne Insha Park	37.25	3
UC5	Akhlaq Hussain	41.06	4
UC6	Baradari Park	41.31	5
UC6	Tanveer Park	45.31	6
UC4	Parda Park Sarmd Chaman)	45.43	7
UC9	Gulshan e Habib Park	46.99	8
UC10	Fatima Tu Zehra Park	47.97	9
UC10	Taj Mahal Park	54.42	10
UC1	Usmania	61.46	11
UC3	Roshan Ara Bagh (Manuwara Masjid)	63.22	12
UC3	KMC Park	72.65	13
UC10	Gosha e Atifal	72.65	14
Pocket Parks			
UC1	Children Park	33.14	1
UC1	Khursheed Begam	33.18	2
UC1	Khushboo Park	33.62	3
UC1	Khadeja Park	34.03	4
UC1	Bagh e Batool	34.07	5
UC1	Bagh e Aesha	34.12	6
UC1	Hifsa Bagh	36.12	7
UC5	Tikona Park UC10	41.39	8
UC1	Syeda Umme Kulsoom	42.23	9
UC2	Quba Masjid A	43.94	10
UC2	Pards Park	44.88	11
UC3	Al Azhar Park	48.37	12
UC3	Zaki Park	48.71	13
UC4	Bagh e Fatima	48.91	14
UC5	DC Offiee Park	50.42	15
UC6	Quba Masjid B	51.33	16
UC6	Abdar Park	51.55	17
UC6	Phool Bagh	55.16	18
UC6	Bagecha e Usman	55.29	19
UC9	Hazrat Musab bin Umair	55.51	20
UC9	Makki Masjid	57.11	21
UC10	Bagh e Syedi	58.33	22
UC8	Quba Masjid C	66.57	23
UC10	Hasrat Mohani Park	72.65	24

Only visitors mainly use the well-maintained parks. The proportion of which is a meager 0.87% to total parks. The over utilization pressure can well be imagined. The spatial distribution of parks not only is inappropriate but that of well maintained parks is also disbalanced. Density of parks is highest in Mustafabad (10.74%) and lowest in Pahar Gunj (0.6%), an enormous range. The density of well-maintained parks is highest in Farooq-e-Azam (2.14%) and no parks in this category in UCs Mustafabad and Shadman, although they have higher density of population than UC Farooq-e-Azam. The residents of Mustafabad and Shadman are totally deprived of well-maintained parks.

The influence of residents can also play a significant role on the level of development of parks in any area. The small parks 1 acre and less that predominate in UC 6 i.e. Farooq-e-Azam is well maintained due to the personal interest of the neighboring residents; also parks adjacent to 'masjid' (mosques) are better maintained. While parks in Mustafabad are ill maintained due to the predominance of 'Pathan' population who are mainly refugees, least interested in maintaining the parks, being oblivious of environmentals values.

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