# Inhabitants' Satisfaction in Neighbourhood Sustainability: Insights from Colombo

**Jeeva Wijesundara[1],**
**U.G.D Weerasinghe[2],**
**L.S.R. Perera[3].**
[1, 2]; Department of Architecture, University of Moratuwa, Sri Lanka.
[3]School of Architecture, Sri Lanka Institute of Information Technology, Sri Lanka.

**Abstract**

*Despite an increasing number of studies on the evaluation of sustainable neighbourhoods, only a few have paid attention to the identification of the components that influence the degree of inhabitants' satisfaction. A neighbourhood is a built entity that situates the experiences of daily lives of a group of inhabitants in an identifiable geographical space, while neighbourhood sustainability is the process of nurturing its environment to support and meet both economic and social needs of its inhabitants. A sustainable neighbourhood should ensure a desired quality of life and satisfaction to its inhabitants by inter-twining the local, social, environmental, and economic aspects to enable its sustenance as a wholesome place to live. However, most neighbourhoods do not do so.*

*This paper investigates an urban residential neighbourhood in Colombo: the Newham Square, and examines the degree of inhabitants' satisfaction based on their evaluations. It assesses neighbourhood sustainability under the three main sustainability parameters: environmental, social, and economic facets. Physical and non-physical elements of the neighbourhood form is investigated by using secondary data. Structured interviews were carried out to ascertain inhabitants' satisfaction while physical observations were made to identify the deterministic elements.*

*Finally, it concludes that the neighbourhood form has a significant role to play in ensuring inhabitants' satisfaction and therefore neighbourhood sustainability.*

**Keywords:** Inhabitants, Satisfaction, Neighbourhood form, Sustainable neighbourhoods, Colombo.

## 1. Introduction

Neighbourhoods are significant parts of a city. Indeed, they are the most localized spaces of human habitation. The Young Foundation (2010) points out that, inhabitants experience either positive or negative impacts of the environmental, social, and economic responsiveness of any neighbourhood. If positive, they sense and intuitively realize its positive facets: satisfaction in the quality of life, neighbourly interactions, mutual support, presence of gathering places, and a convenient and appealing environment. If negative, they experience dissatisfaction: danger, anti-social interactions, exclusiveness, isolation, inconvenience, and dereliction.

According to Beauregard (2005), neighbourhood sustainability comprises a combination of positive environmental responsiveness, economic progress, and social integrity. These ideas

demonstrate that the aim of a sustainable neighbourhood must be to create a 'user-friendly' and 'resourceful' living entity, with energy-efficiency in its form, and a favourable place to live a satisfying life as its function. A neighbourhood physically manifests sustainability, with its people's acuity as 'great' or 'bad' localities. This directly affects a 'neighbourhood experience' of its inhabitants as users, though there could be several other influencing factors. It is argued therefore, that the inhabitants' level of satisfaction or the appeal towards the inherent quality of living is adequate proof of sustainability of any built environment; particularly, a neighborhood.

Today, planning and design professionals accept that cities should be formed with stronger normative visions. They should also demonstrate concern for larger public purposes and produce long-term sustenance of local communities and neighbourhoods (Beske, 2007). Jane Jacobs (1961) has shown that the cities are 'an immense laboratory of trial and error' and that failures and successes in the design of cities, as well as at local scale: neighbourhoods are their components. Planners and urban designers have often learnt from the successes and failures in real life and are inquisitive about the reasons for the positive or negative outcomes. Therefore, learning from testing the theories already applied on existing cities and neighbourhoods could reveal the needs of the public. In this milieu, the inhabitants' perception of satisfaction upon their living in a locality can be a test of the socio-economic and cultural representation of sustainability of a built environment. This paper intends to do just that.

## 2. The research problem

Assumptions, theories, and definitions, the planning and design professionals often use in neighbourhood developments appear to create detrimental effects on physical and socio-cultural aspects of neighbourhoods. This is evident in their physical formations as against the pertinent environmental, socio-cultural, and economic needs. There is no doubt that good understanding and experience about human expectations can provide the ability to create good cities and neighbourhoods' reliably and consistently. However, there may not be a definitive set of sustainability strategies that could be applied commonly to all communities or neighbourhoods. Objectives may vary from one neighbourhood to another, based on several internal and external factors which can have changes over time. Hence, it is appropriate to learn from long-lasting sustenance of localities that may offer such lessons. In this regard, the Newham Square neighbourhood has been often hailed and therefore the following questions could be raised.

- How has the satisfaction been determined by its form at the Newham Square neighbourhood?
- How can it be improved offering better urban quality of life for its inhabitants?

However, in order to answer the above questions, the following question must also be inevitably raised.

- What are the requisites of an urban neighbourhood that satisfy inhabitants in the long term?

## 3. The research objectives

The aim of this paper is to identify the requisites of a neighbourhood that determines the inhabitants' level of satisfaction about living in a neighbourhood. A higher level of inhabitant's satisfaction leads to an appealing, sustainable neighbourhood. The objectives of the research are:

i. To identify the appealing attributes of the Newham Square neighbourhood form experienced by inhabitants.
ii. To investigate the mode in which a neighbourhood assessment by inhabitants would diverge with the varying attributes of the form of the neighbourhood.
iii To understand the major requisites of a neighbourhood for a better appeal to inhabitants, to improve the existing conditions and to advance the 'quality of life' with the changing needs.

## 4. The theoretical basis

### 4.1 Recognizing urban neighbourhoods and their formations

The term 'urban neighbourhood' is understood and described diversely. It is defined at multiple scales, depending on the size, level of cohesion and services shared. Park and Rogers (2015) examine neighbourhood planning guidelines at four levels: physical requirements to operate in the planning process as face-blocks, residential neighborhoods, institutional neighborhoods and community. Compared to the chaos and organizational complexity of the city, a well-planned neighbourhood offers a manageable environment. Its small-scale enables efficient control while maintaining certain social benefits of togetherness.

Azmi (2012) points out that the concept of urban neighbourhood was first introduced by Clarence Perry in 1910 with the intention of resolving the issues of transportation in the urban centres and housing. Perry (1939) defines the neighbourhood unit as a planned community with the needs of family life as its central component. Neal (2003) substantiates this point of view when he says that a neighbourhood is the most commanding urban component that defines the environmental, social, and economic sustainability of an area. However, it is the presence of community bonds that hold it together. Thus, when appropriately planned, a neighbourhood should address the complex needs of inhabitants.

The dimensions of a neighbourhood are not limited to its topography, land use administrative categories or even the sociological context. Rather, neighbourhoods are the localities that connect physical, social, cultural, economic, and environmental factors of a community (Dehghanmongabadi, 2014). Nelischer (1997) says that a neighbourhood offers insights into human interactions, acting, behaviour, conditions of affection, relationships, and trust, while affecting social capital and physical and mental health (Leydon, 2003).

Young Foundation (2010) employs two main models to understand the demarcation and the extent of a neighbourhood. They are the administrative geography and self-defined boundaries.

Description of a neighbourhood recognizes its geographic, demographic, and social physiognomies. American Planning Association (2016) identifies the following for the description of a neighbourhood:

- Location.
- Density.
- Street layout and connectivity.
- Economic, social, and ethnic diversity.
- Functionality or land use diversity.
- Character of neighbourhood and Neighborhood formation.

Hillier and Hanson (1984) argue that it is essential to structure the best suitable framework for defining a neighbourhood, which makes sense from the viewpoint of inhabitant engagement. Further, the most favourable living experience and community value can have relations to the convenience of local service provisions (Dehghanmongabadi, 2014). Hence, in this study, the neighbourhood form is interpreted as being constituted of physical and non-physical components such as:

- Density.
- Land-use.
- Layout.
- Connectivity and transport infrastructure related to location.
- Housing and building types, and architectural character.

### 4.2 Neighbourhood sustainability as satisfaction of inhabitants

According to Bruntland (1987), a sustainable, appealing neighborhood must be comprehensive in satisfying its current residents' needs and accommodating improvements to provide for the needs of forthcoming generations. In fact, a sustainable development must ensure that peoples' lives today, and in the future, are socially, environmentally, and economically

appropriate. They must also be healthy, safe, convenient, well-planned, and built to last long. Simultaneously, they must be visually pleasing, aesthetically appealing, conveniently functioning and overall user-friendly. This means that a neighbourhood environment must satisfy the community to be sustainable.

Highlighting on peoples' perception and sense on their environment, Lynch (1960) states that the living environment should be geared to the appropriate cultural type or shaped in many ways to satisfy the varying demands of the individuals who inhibit it. Gehl (2010) identifies respect for people, dignity, and zest for life as issues in urban environments. Focusing on residential areas, Savasdisara (1988) finds that the physical and socio-environmental components of a neighbourhood affect residents' satisfaction.

Combining the residents' appeal and sustainability, Howley (2009) in his investigation on sustainability versus liveability, claims that the public may support sustainability principles in the context of 'neighbourhood satisfaction'. Similarly, Dehghanmongabadi, (2014) states that public participation is a key factor to achieve sustainability in communities. Hence, the inhabitants must have an appeal: a satisfaction about their living setting, to be liveable and sustainable.

Dehghanmongabadi, (2014) points out that the definitions, guidelines, and principles of a liveable and sustainable neighbourhood have changed over time. In this context, current theories on planning of sustainable neighbourhoods draw attention to the need to create mutual relationships between urban dwellers and a neighbourhood that could contribute to improvements to quality of life. For example, UN-Habitat promotes three key aspects of sustainable neighbourhoods and cities: compactness, integration, and connectivity (UN-Habitat, 2011). As a single locality, a neighbourhood should generate communal relations and encourage rewarding humane associations, while providing convenience of living.

Based on the above sustainability criteria, indicators on density, land use, layout, connectivity, infrastructure, building types and architectural character of a neighbourhood, can be considered under environmental, social, and economic parameters, (Southworth,1993, Teriman,2012, Homoud & Tassinary,2004). However, they are strongly interconnected and cannot be assessed separately.

## 5. Methodology

### 5.1 Research strategy

As Mills states, appropriate sampling best portrays the research problem (Mills, 2010). This is centralized in the research design in this study. A single case study is chosen to deeply explore the real aspects of the problem to study the neighbourhood formation and the resulting perception of the living experience of its inhabitants.

The case study selected is 'Newham Square': a neighbourhood from the Colombo Municipality, as a prototype of a planned urban neighbouhood that has existed over 80 years. Boundaries were confined to a self-defined vibrant community model, an exemplary case of a residential neighbourhood in the central development zone of Colombo. The research is executed through two key steps.

(1) First, it analyses the neighbourhood form; the focus is to understand the neighbourhood form technically, in terms of its physical and non-physical components such as location, density, land use, layout, connectivity, transport infra-structure, housing and building types and architectural character. This employs secondary sources and personal observations. Secondary sources of information are ordinance surveys, site surveys, census data, information from local authorities, and onsite personal observations. Accordingly, physical density, housing typology and building character, lay-out, land-use, transport infra-structure and connectivity are physically studied and data at the macro context are obtained by spatial analysis utilising the latest GIS based information available with local authorities.

(2) Secondly, it assesses neighbourhood sustainability as reflected in the inhabitants' perceived satisfaction. Data was collected using the following procedure.

Structured interviews: A questionnaire survey was administered. 35 random samples of households were selected, and the questionnaires were responded to, by one adult

of each household, who has been a living resident in the neighbourhood for a period of more than 10 years.
Structured observations: Systematic personal observations without any involvement of the participants.

### 5.2 Framework for the assessment of inhabitant's satisfaction for sustainability

Considering real life situations, a set of 50 queries examine the inhabitants' satisfaction levels of the neighbourhood. Questions are structured and simple. They probe three main sustainability parameters: environmental, social, and economic. Each query examines determinant components of the neighbourhood form under each sustainability parameter as demonstrated below. Their respective qualitative outputs are assessed under the same sub-categories in respect of physical and non-physical components.

| | |
|---|---|
| Environmental parameters: | Density, Layout, Land use, Connectivity/transport infrastructure: (Q1-Q25) |
| Social parameters: | Layout, Land use, Connectivity/transport infrastructure, Building types and Architectural character: (Q26-Q43) |
| Economic parameters: | Layout, Land use: (Q44-Q50) |

The questions included a Likert Scale to ascertain the levels of appeal or satisfaction as: very poor [1], poor [2], moderate [3], good [4] and very good [5]. The responses were manually recorded for the analysis, which was then carried out with the aid of the Statistical Package for Social Sciences (SPSS) to obtain mean values of inhabitants' levels of satisfaction.

## 6. Introduction to the case study: The Newham Square neighbourhood

The Newham Square neighbourhood is a vibrant multi-racial and multi religious community located in close proximity to the harbour wall in North Colombo, within the concentrated development zone. Due to the location, formation, and inherent architectural character, the neighbourhood has become an attractive and striking urban community in the existing urban fabric.


**Fig. 1**: Location and environs of Newham Square Neighbourhood
Sources: Google maps, GIS,2015; Urban Development Authority SL.

The neighbourhood is bounded by Srimath Ramanathan Avenue, running parallel to Colombo Port Main Road in the West, with K.B. Christie Perera Avenue to the North and Ratnam Road to the East and South (Fig.1). This neighbourhood with a unique identity has been built by the British government in 1930, to settle the working labourers of the Colombo harbour. Sri Lanka gained independence from Britain in 1948.

## 6.1 Findings and analysis

### 6.1.1 Investigation and analysis of physical formation: Step-1

Step-1 is an analysis of the neighbourhood form, with reference to its physical and non-physical components: density, land-use, layout, connectivity and transport infrastructure, housing/building type and architectural character.

**(a) Density**

Since the location is within the concentrated development zone in the main business city of Colombo, both housing and residential density are comparatively very high. In the neighbourhood, nearly 85% of the area is built, out of which 70% of buildings are residential buildings. This is a reasonable prototype for high-density neighbourhoods, which shares common urban facilities amongst a larger group of urban residents. A high density is achieved by minimizing the plot size and the footprint. Further, the number of floors of the buildings are limited, economizing building structures.

**(b) Land use**

In the spatial analysis at the macro context, it is observed that the fundamental land uses essential for the convenient functioning of the neighbourhood are available in the close proximity: specifically within a one-Kilometer radius. Within the neighbourhood, a clear mix of uses are identifiable. Residential usage is the most significant at 70%. Commercial usage and roads follow at 14% and other usages such as public and private green spaces, playgrounds and religious facilities are at 2% altogether. Open public spaces and community spaces are centralized but limited. Commercial establishments exist at the edge of the main arterial roads.

**(c) Layout**

Neighbourhood lay-out is compact, simple, and well-connected, with outer main arterial roads and inner semi-public roads, accompanied by pedestrian alleyways (Fig. 2). Every house block has a narrow road frontage and is accessible directly from the road at the ground level. Upper-level housing has the entrances from the upper-level corridors on the side opposing the road. Private garden spaces are extremely limited, but small landscape patches are visible in the front areas of most houses. Narrow inner streets do not contain separate or designated pedestrian spaces. Further, on-the-road parking is commonly in use. For the most part, roads are used as an extended part of the residents' living spaces in the front. This makes the road a common community space in the neighbourhood. Rear spaces of the residences form a narrow alleyway common to all pedestrians, which is a unique feature of the neighbourhood. Narrow entryways from the main arterial roads to alleyways are special features, forming shared community spaces (Fig. 2, & 3).


**Fig. 2**: Layout of the neighbourhood and connectivity to the context
Source: Author, 2018

**Fig. 3**: Narrow entryways from the main arterial roads to Alleyways
Source: Author, 2018

**(d) Connectivity and transport infrastructure**

The neighbourhood layout demonstrates a sound level of connectivity within the locality, as well as the surrounding urban context. In the spatial arrangement at the macro level, proximate transportation nodes, commercial centers, schools, health centers, community areas and religious centers exist. Each house is well connected to its immediate surrounding context by public roads, semi-public roads, and alleyways. Pedestrians have priority within the neighbourhood. Internal semi-public roads become pedestrian spaces although pedestrian pavements are not available. The neighbourhood is well adapted to public transportation. Private vehicle use is minimal.

**(e) Housing and Building Type**

Narrow road frontages and tight building plot arrangements with the pattern of low-scale building heights are significant unique facets of the fabric, which create the neighbourhood identity. Buildings are comparatively taller towards the border to the outer main arterial roads. They vary from two to six floors. Facing the inner roads, they vary from single floors to four story heights. Majority of the residential buildings are two-storied, and each unit occupies a single storey. The ground level houses have entrances directly from the road and the upper-level houses have entrances from a common passage running at the rear side above the alleyway (Fig.4, 5, & 6).

**Fig. 4**: Entrance stairways from the road to upper-level passage.
Source; Author, 2018

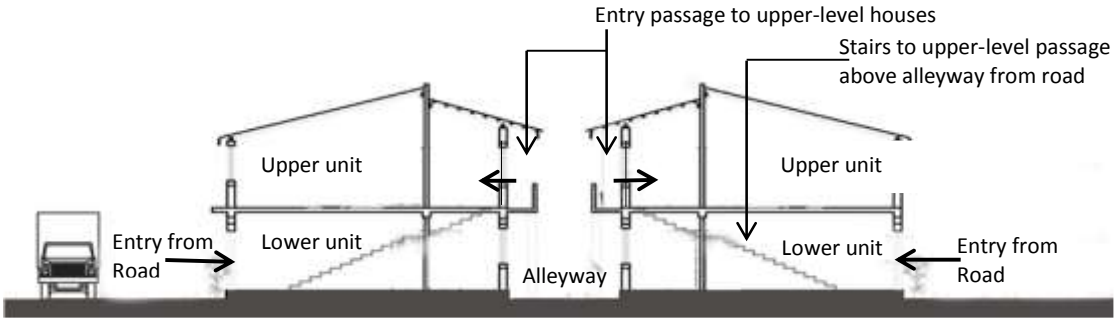


**Fig. 5**: Entrance from the road to the lower-level houses, and from passages above alleyway to the upper-level houses
Source: Author, 2018

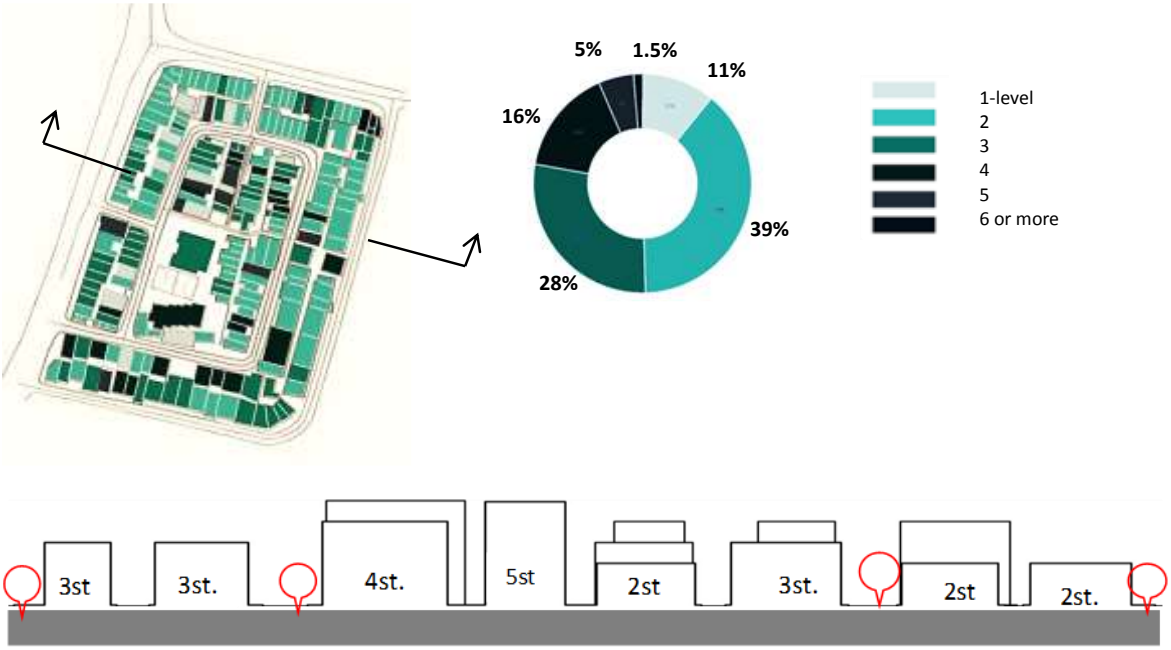


**Fig.6**: Pattern of height variations within the neighbourhood.
Source: Author, 2018 based on sources from GIS, 2015 (UDA) and Physical Observations

**(f) Architectural character**

The houses are densely placed and highly compact. Old buildings of the area have followed a unique design, but new renovations have added certain elements and have made changes often on the facades. A number of buildings have upper floors as new additions. Landscape features, façade colours, protective grill devices and railings etc. express the individuality of the houses. However, the changes are not architecturally disagreeing, and they create a unique identity, and contribute to the production of a significant architectural character of the neighbourhood (Fig.7).

**Fig.7**: Unique architectural character of the urban neighbourhood
Source; Author, 2018

The neighbourhood has existed for more than eighty years as stated by inhabitants, with minor changes in the internal arrangements, which were required to cater to the increasing interior space requirements. The houses are of permanent structures, and in general, walls are made of brick; plastered, and painted. Nearly 75% of the houses have cemented floors and many are finished with tiles, which are recent renovations. Originally, the houses have had tile roofs. Currently, 50% of them are replaced either with asbestos roofs or tiles on asbestos roofs.

### 6.1.2 Assessments of the levels of inhabitants' satisfaction: Step-2

Assessment of the levels of inhabitants' satisfaction or appeal is carried out through questionnaire-based interviews, as explained in the research method. In the descriptive statistics, reliability of the statistics is stated as 0.872 Cronbach's Alpha in the 35 cases, which could be considered as a rich data collection in terms of SPSS.

Based on the data obtained in the questionnaire survey, and subsequent simple descriptive analysis obtained with the aid of SPSS, a briefing is arrived. Here, the environmental responsiveness, social attentiveness and economic viability are assessed with the inhabitants' 'mean' level of satisfaction of the neighbourhood, under each sustainability aspect, with reference to the components of its form as the analysis.

Based on the mean value of the answer for each query, it is observed that the standard deviation is always a small decimal figure. Effectively, it indicates how closely the values in the dataset are formed around the mean value. Therefore, centered to the mean values of the inhabitant's rating on satisfactory level or the appeal, following inferences are arrived.

#### (a) Environmental responsiveness

In the assessment of sustainability of the environmental aspect in terms of density related issues, inhabitants' rating on the sufficiency of current residential density with the population density, scores at 3.71; in between good to moderate. Air and noise pollution related health effects are identified with adverse concerns by residents, who are vulnerable to relevant non-communicable diseases, and stress conditions; this is rated 3.40, in the moderated range. The supply of energy and services are recognized as highly favourable, rated 5.0 evaluated as very good including solid waste disposal, in keeping the neighbourhood clean and tidy.

Environmental aspects in terms of the lay-out demonstrate that the street experience including light levels are desired by inhabitants; this is rated at 4.29, evaluated as 'good'. However, adequacy of open space provisions, tree plantation, wind concerns, natural light, and ventilation provisions are evaluated as insufficient, rated at 2.91-2.97, just below 'moderate'. On the contrary, responsiveness in terms of land use distribution structure, movements and interaction patterns, transportation patterns, and functioning of current land uses are perceived as convenient, with a rating above 4.66. Existence of impervious surfaces is found as being barely minimum and thereby storm water management systems are considered as highly efficient even during heavy rains, with the rating of 5.00 in the Likert Scale.

Connectivity and related transportation matters are evaluated by the residents as the neighbourhood adapting well to the immediate context. Public transit, and pedestrian and bicycle movements are accepted as optimally encouraged and in use, with ratings at 4.89-5.00 in the Likert Scale, although the pedestrian and bicycle lanes are not physically provided or demarcated. Street safety and convenience are perceived to be highly desired, rated at 4.66-5.00. Street connectivity is accepted as adequate and appropriate, rated at 5.00, and the availability of route directions is regarded as convenient, rated at 5.00 too. Further, it is important to note that the residents' insight on the adequacy of pedestrian accessibility is rated at 4.89, and pedestrian network coverage is rated high at 5.00.

### (b) Social attentiveness

In relation to the social sustainability of the neighbourhood, questions were directed to ascertain the inhabitants concern towards social needs and aspirations. With reference to the layout, the association of social patterns and behavior within the neighbourhood is considered to represent inhabitants' interests well and is rated at 4.34. The collective identity of housing and building character is rated at 4.43, indicating its appeal to the inhabitants. Convenience of accessibility to public services, such as schools, public transit, healthcare, emergency services and places of worship, are rated high at 4.66. Further, it is noted that convenience levels for the elderly community to live and move about, is rated moderate at 3.74. Similarly, with the land-use distribution, residents are not satisfied with dedicated facilities for childcare, and community facilities. This is rated at 3.23.

Connectivity and accessibility, in terms of social sustainability, with appropriate traffic calming precautions, expression of cultural identity and facilitation of non-motorized transportation, walking and cycling are perceived as favorable, rated at 5.00, 4.20, and 4.89, respectively. It was observed that even though designated pedestrian and cycling lanes are not physically available, a certain control is maintained as a culture within the communal living style, providing a safe and secured setting for females, children, and differently abled residents (Fig.8). Simultaneously, prevalent planning and engineering standards of building services, and public life of community are evaluated as moderate, at 3.89 and 3.46.

**Fig. 8**: Differently able people, women and children relish equal convenience in movement
Source; Author, 2018

Considering the social aspect in terms of the architectural character, residents are of the opinion that they are offered a strong communal identity; a sense of place. This is rated at 4.74, and a reasonable human experience of a good living is rated at 4.60, though with few exceptions. They appreciate the identity of the neighbourhood as being of diverse cultural groups and the facilitation of such diversity rated at 4.83. Its architectural character, or the ambience created by the housing, buildings, and other built components is rated at 4.80. However, the diversity or variety of housing quality, which is rated at 3.51, does not offer a wide scope of options for residents.

### (c) Economic viability

Within the economic sustainability in terms of the layout, connectivity, accessibility, and the available modes of transportation are highly desired. This is rated at 5.00. In that sense, this neighbourhood is a good example, where people experience the optimum benefit of living in such a location. House prices and land values are well recognized and rated high, at 4.86. However, the diversity and affordability of housing types show a lower rating, which is at 3.51. Convenience in reaching employment destinations is rated high at 4.06, and the availability of commercial establishments in the proximity, is highly valued, rated at 4.91. However, the overall rating on living quality is placed 'moderate', at 3.86 in the Likert Scale.

## 6.1.3 Remarks

This data evaluating the inhabitant's satisfaction of the Newham Square neighbourhood demonstrates that the rating of their own living environment on the environmental responsiveness lies between 4.00 and 5.00, which indicates a good to very good assessment: numerically being 4.49, with a standard deviation of 0.09. Similarly, social attentiveness is rated as good: numerically 4.12 with a standard deviation of 0.47. Economic viability is rated as good: numerically 4.25 with a standard deviation of 0.33. Overall sustainability appeal is rated as good, numerically 4.28 with a standard deviation of 0.25. This quantitative analysis thus reveals the following important insights related to the neighbourhod (Table 1).

**Table 1**: Summary of descriptive statistics indicating overall mean values of inhabitants' appeal

| Sustainability aspect | Component/form | Query | N | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Environmental Aspect Q1-Q25 | Density | Q1-Q9 | 35 | 4.3429 | 0.1931 |
| | Layout | Q10-Q14 | 35 | 3.8000 | 0.2612 |
| | Land use | Q15-Q18 | 35 | 4.8714 | 0.1530 |
| | Connectivity/Trans. | Q19-Q25 | 35 | 4.9747 | 0.0722 |
| | **Summary/Environmental** | **Q1-Q25** | **35** | **4.4872** | **0.0923** |
| Social Aspect Q26-Q43 | Layout | Q26-31 | 35 | 4.3810 | 0.4420 |
| | Land use | Q32 | 35 | 3.2286 | 0.7702 |
| | Connectivity/Trans. | Q33-37 | 35 | 4.2857 | 0.4291 |
| | Arch. character | Q38-Q43 | 35 | 4.5762 | 0.3947 |
| | **Summary/Social** | **Q26-Q43** | **35** | **4.1179** | **0.4708** |
| Economic Aspect Q44-Q50 | Layout | Q44-Q47 | 35 | 4.2214 | 0.3676 |
| | Land use | Q48-Q50 | 35 | 4.2762 | 0.4000 |
| | **Summary/Economic** | **Q44-Q50** | **35** | **4.2488** | **0.3294** |
| | **Summary/Overall** | **Q1-Q50** | **35** | **4.2846** | **0.2505** |

Source: Case processing summary of descriptive statistics in SPSS.

**Positive aspects:**

- The location is considered as the best feature of the neighbourhood.
- Connectivity and adaptability to public transit is well recognized.
- The layout within the neighbourhood provides sufficient security, for all residents, including women, kids, and differently abled citizens, offering a safe outdoor setting.
- Compact and integrated arrangement of housing makes services feasible and convenient, even during an emergency situation (for example recent lockdowns).
- Availability of commercial establishments in close proximity and convenient travel to employment destinations are evident.

**Negative aspects:**

- The residential density proportionately to the population density is low.
- The rate of tree plantation and solutions regarding wind, natural light and ventilation concerns are barely satisfactory.
- Provision of open space in the layout and within the neighbourhood is found to be inadequate.
- Diversity and affordability of housing types are found to be inadequate.
- Standard of living, standards and quality of buildings are poor.

## 7. Conclusions

Sustainable development means much more than environmental conservation. It embraces the inhabitants' need for equity and quality. This paper develops an integrated approach recognizing the fact that environmental, social, and economic goals in appealing neighbourhoods are often mutually reinforced with the neighbourhood form. The inhabitants' experience impartially adjudicates the circumstances arising in terms of neighbourhood form intuitively. More significantly, the potential contribution or intervention of neighbourhood form in establishing an appealing, sustainable neighbourhood is yet to be discussed and agreed, in order to use it as a tool in the design of new neighbourhoods or in the re-instatement of existing ones as 'great', 'sustainable' or 'appealing' neighbourhoods. Clearly, it constantly faces challenges, and therefore, should be robustly utilized, to withstand upcoming social, environmental, and economic requirements of the neighbourhoods.

Specifically, in this case study, it is demonstrated that the convenient location is a fundamental factor of environmental, social, and economic superiority of the neighbourhood. It is rated as 'good' by the inhabitants as a safe, secure, and convenient living environment for all, including kids, women, elderly, and differently-abled persons which is one of the main social expectations of the neighbourhood. Dedicated facilities for children, youth, and senior citizens, which are important and essential inclusions of urban living are not available within close proximity to the neighbourhood. Connectivity, accessibility, and transportation mode are prime concerns of urban residents, owing to the location of the neighbourhood for high rating.

Quality of life of this urban community needs to be transformed with the changes of requirements, such as diversity in house types, affordability, and quality of housing which is presently lacking. Further, periodic maintenance and improvements of the quality of houses, within strictly designated design guidelines is necessary to avoid deterioration of existing collective identity and distinctive character of this urban locality.

Inhabitants' satisfaction over the neighbourhood refers to the degree of contentment experienced by them regarding the socio-economic and environmental conditions at present. The study concludes that the inhabitants' appeal or the evaluation of the neighbourhood is rated as 'good' on the Likert Scale, indicating that it is sustainable, despite the diversity of housing types and provision of adequate open spaces being considered comparatively unsatisfactory. Though it has not been a standard method of measuring sustainability, the inhabitants' satisfaction is a prime factor to be evaluated, as they are the primary stakeholders, directly experiencing it. Hence, this paper argues that the inhabitants' level of satisfaction is a sensible indicator of sustainability of a neighbourhood.

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