

## Appraisal on User Satisfaction for Neighborhood Sustainability; A Case from Colombo

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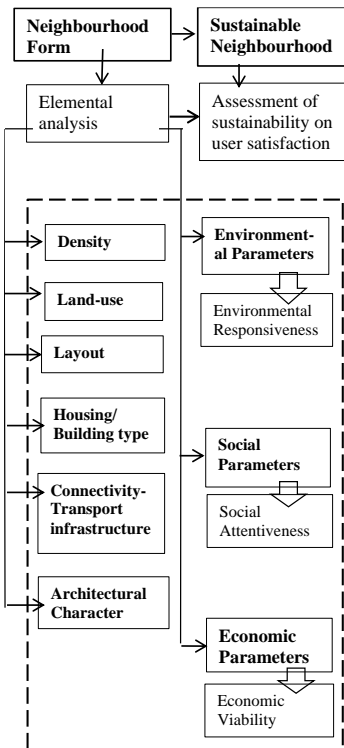
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### ABSTRACT

Neighbourhoods are the most-local communities of human habitat. Inhabitants sense that they intuitively realize what a 'good neighbourhood' mean, for their satisfaction, with the degree of neighbourly interactions; mutual support, gathering places, convenient and appealing environment, or in a 'bad neighbourhood', for dissatisfaction; danger, anti-social interaction, exclusiveness, isolation, inconvenience, and dereliction.

In this paper, the inquiry into both architectural and environmental behaviour, is a growing body of qualitative, descriptive research, focusing on human responsiveness to a place, a neighbourhood. Particularly the study expresses neighbourhood as built environments, converging to the environmental experiences of residents. In response, they are the non-physical sensual component of built forms and spaces that refines the built environment inscribing a living quality into it. The study investigates the physical formation of the neighbourhood and it reveals the degree, of user satisfaction; to which the neighbourhood space is sensed from the viewpoint of inhabitant engagement.

**KEYWORDS:** Inhabitants; Perception; Satisfaction; Sustainable neighborhood; User.

## 1. Introduction

In neighbourhood settings, Inhabitants are the real users who experience positive or negative repercussions of their environmental, social, and economic responsiveness. Their level of satisfaction or the appeal towards the inherent quality of living is sensible proof demonstrating the sustainability of the built environment, particularly the neighbourhood. The neighbourhood is realized as the most imperative urban component that establishes the sustainability of the area, with the provision of community bonds which promises to hold it together (Neal, 2003). Designers challenge addressing broader socio-economic and cultural issues and strive to resolve urban dilemmas.

Today, planning and design-related professionals have accepted the city formation with stronger normative visions, often demonstrating concern for larger public purposes, and the long-term future of local communities (Beske, 2007) and neighbourhoods. Criticisms by Jane Jacobs (1961) have summed up that the cities are 'an immense laboratory of trial and error'; failures and successes in the design of cities (Jacobs, 1961), and on a local scale, neighbourhoods are their constituents. According to Jacobs, the practitioners of this discipline have ignored learning about successes and failures in real life and are unconcerned about the reasons for those positive or negative outcomes. Rather than being guided by principles derived from the appearance of cities, learning and testing theories already applied in the existing city and neighbourhood formation reveal the public need in reality. In this milieu, the satisfaction level of the inhabitant or the user is a defined judgement for testing the socio-economic and cultural representation for the sustainability of the built environment.

## 2. Research Problem Statement

Assumptions and definitions that planning and design professionals continue to use in neighbourhood development seemingly had detrimental effects on the physical and specifically socio-cultural elements of our neighbourhoods. Precise understanding and experience of human expectation centres on the ability to create good cities and neighbourhoods reliably and consistently. What satisfies the user in an urban neighbourhood? Why are they satisfied or dissatisfied with the prevailing conditions? How to conclude it, appealing to inhabitants, and satisfying their socio-cultural rudiments?

## 3. Research Objective

Specific objectives of the research are, to identify the appealing topographies of a neighbourhood that are perceived and experienced by users, representing their level of satisfaction. The mode that neighbourhood assessment would diverge with the varying elements of its form of the neighbourhood is scanned. The aim is to identify the requisites of a neighbourhood that determine inhabitants' satisfaction levels. A higher level of user satisfaction leads to an appealing, sustainable neighbourhood. That could be adopted into policy-level design decisions in new residential neighbourhood developments.

## 4. Literature Review

This section scrutinizes the definition of physical form recognizing neighbourhoods, and examines the theories of human perception of neighbourhood environment, drawing a broad investigation of social and physical elements from a planning and architectural design point of view.

### 4.1. Recognizing Neighbourhood and its Formation

The urban neighbourhood is understood and described diversely. The dimensions of the identity of a neighbourhood are not limited to its sociological context, topography, land use and administrative categories. Prominently, Neighbourhoods are the localities that connect the physical, social, cultural, economic, and environmental factors (Dehghanmongabadi, 2014) of a community. It offers insights into human interaction, acting, behaviour, conditions of affection, relationships and trust (Nelischer, 1997), affecting the social capital; physical and mental health (Leydon, 2003).

The concept of the neighbourhood was primarily introduced by Clarence Perry (Azmi, 2012) in 1910 to resolve the issues of transportation in urban centers and housing. As a principal component, Perry's (1910) outline of the neighbourhood unit is a planned community with centred needs of family life. Accordingly, Neighbourhood is realized as the most imperative urban component that establishes the environmental, social, and economic sustainability of the area (Neal, 2003), with the provision of community bonds, holding it together. Further, as a unit, it generates communal relations and encourages rewarding human associations, providing comfort and convenience of living. Compared to the chaos and organizational complexity of the city as a whole, the neighbourhood unit offers a manageable environment. Its small-scale size enables efficient control while maintaining certain social benefits of togetherness.

Accordingly, the neighbourhood becomes a convenient and easily defined urban area; a bounded territory, a collection of streets, and a service area, which generates a social network. This supports the inhabitants to stimulate a sense of community through social interaction, leading to a unique community identity and a specific attachment to the members of the unit.

To understand the demarcation and the extent of a neighbourhood, mainly two models are found principally, as Administrative Geography and Self-defined boundaries. Description of a neighbourhood essentially recognizes its geographic, demographic, and social physiognomies. American Planning Association (2016) identifies the following in such description;

- Location: urban, suburban, rural, etc.;
- Density: dwelling units per acre;
- Street layout and connectivity;
- Economic, social, and ethnic diversity;
- Functionality: residential, commercial, retail, etc.;
- The character of neighbourhood: circumstances of planning efforts contributed to or sustained;
- Neighbourhood formation: whether more organically or through a formal

planning process;

It is essential to structure the best suitable framework for a neighbourhood that brings the most sense from the viewpoint of inhabitant engagement (Hiller & Hanson, 1984). As such, it is important to understand, that the most favourable living experience and community values have references to the local service provisions. Since residents spend a great deal of time in their neighbourhoods, they often identify more strongly with those immediate surrounding areas than with the city as a whole. In conclusion, a neighbourhood is a physical body or an organization, that always possesses distinctive physical, social and economic characteristics and indicates a strong physical reality within cities. They perform a significant role as key units in the formation of cities.

## 4.2. Neighbourhood Sustainability Concept for User Satisfaction

A sustainable, appealing neighbourhood has to be comprehensive in satisfying current residents' requirements and accommodating new improvements by accepting the needs of the forthcoming generation.

The urban neighborhood is a momentous social geographic unit that holds a central role in creating sustainable cities (Al-Hagla, 2008). Sustainable neighbourhoods are viewed as essential parts of a sustainable city (Sharifi & Murayama 2013). Jacobs (1961) states, that a sustainable way of living should effortlessly derive from the way we design our neighbourhoods (Jacobs, 1961). Therefore, sustainable neighbourhoods are the initial steps toward achieving sustainable urban settlements.

As per the definition by Beauregard (2003) 'sustainability' is sited at the intersection of environmental responsiveness, economic progress, and social integrity. Similarly, 'sustainable design' is explained by Kotagama, (2019) as the art of designing the built environment to conform to the ideologies of economic, social, and ecological sustainability, incorporating sustainable planning; cities and infrastructure, architecture, landscape, agriculture, and technology. To maintain the link, any changes in development should be socially equitable, environmentally bearable, and economically viable (Bombugala, 2010). For the realization of this link, inclusive Governance; in terms of managerial dimension, the establishment of policies, proper implementation, and continuous monitoring is essential, regardless of the scale of development.

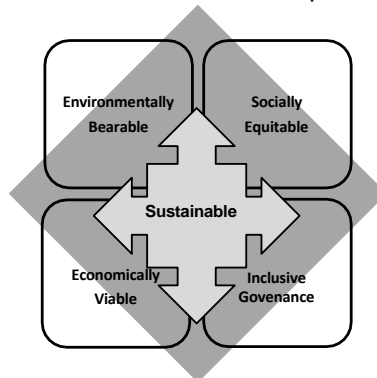


Figure-01: Major Inter-connected Sustainability Parameters and potentialities

(Author's interpretation; Bombugala, 2010)

It is universally agreed that no clear definition of sustainable development could be formulated at the neighbourhood scale, and importantly, the definition and the principles for a liveable and sustainable neighbourhood may have adjustments over time (Dehghanmongabadi, 2014). Planning theories on a sustainable neighbourhood, approach offer to create new mutual relationships between urban dwellers and neighbourhood space and eventually maintain the quality of life. They promote the three (03) key features, namely compact, integrated, and connected, for sustainable neighbourhoods and cities. (UN-Habitat, 2011). Sustainable neighbourhoods are convinced of their time existed since they are to be adaptable over generations.

Centred on these broadly applicable definitions and discussions, at the neighbourhood scale, sustainable development is a place that facilitates peoples' living today, and in the future; socially, environmentally and economically healthy; safe, well-planned and built to last long. They are visually pleasing, aesthetically appealing, conveniently functioning and overall a user-friendly; user-satisfying community environment.

## **5. Research Methodology**

In researching, phenomenological inquiry in both architectural and environmental behaviour, it can be realized that there is also a growing field of qualitative, descriptive research focusing on actual places, built environments, and environmental experiences (Seamon & Mugerauer, 1985). Appropriate sampling to best portrays the research problem is centralized in the research design. A single case study is chosen to deeply explore real aspects of problems to study the urban form and resulting perception of inhabitants, users, in their living experience.

### **5.1. Research Design**

The research is composed of three key steps based on the case neighbourhood. Initially, in the analysis of the neighbourhood, it is focused to understand the neighbourhood form technically. It examines its physical and non-physical components; density, land use, layout, connectivity, transport infrastructure, housing and building type, and architectural character, based on secondary sources and personal observations.

Secondly, in a live survey; the levels and background of user satisfaction are examined in an inquiry into the perception of its inhabitants. Considering the real living situations, a set of queries is formed to understand the overall satisfaction level of the neighbourhood. The research unit would be the household; 35 numbers random samples, and the questions on perception will be answered by an adult of each household. Questions are structured based on sustainability parameters, and the answers are recorded on a Likert scale as very poor (1), poor (2), moderate (3), good (4) and very good (5), to obtain different levels of appeal or satisfaction.

Finally, in the analysis of data, the indicators of overall neighbourhood form,

resulting in a particular satisfactory level for its inhabitants as users, are assessed. More importantly, how far the inhabitants have perceived the identity of their neighbourhood as an appealing place for their satisfaction is the question answered. With the results, the contributory factors of neighbourhood formation which are responsible for the resulting character are established. The case study is a selected neighbourhood development from Colombo Municipality, as a prototype of a planned urban neighbourhood which has lasted for more than 20 years. Boundaries were confined as a self-defined vibrant community model; an exemplary case residential neighbourhood in mix residential zone in Colombo. Data analysis is carried out with the aid of the Statistical Package for Social Sciences (SPSS).

## 5.2. Framework for Assessment of User Satisfaction, for Sustainability

Based on the sustainability criteria found in the literature review, the current neighbourhood environment is studied; for understanding sustainability indicators in Human Perception and Behaviour. Considering the real living situations, queries are framed to understand the overall sustainability of the neighbourhood; (Table-01). Theoretically, those queries are categorized under the main three sustainability parameters and their respective qualitative output is recorded as a scorecard.

Table-01; Framework for examination on sustainability assessment; sustainability scorecard

Sustainability Parameter	Sustainability Indicator for satisfaction
<b>Environment</b>	⊕ Sufficient Residential dwelling density with population density;
	⊕ Energy and natural resource demands;
	⊕ Ecological sustainability
	⊕ Manageability of environmental issues in constant development;
	⊕ Urban water system: availability, usage, disposal, treatment;
	⊕ Energy usage; availability, usage, natural systems;
	⊕ Air pollution and noise; health effects, stress conditions;
	⊕ Stormwater management; disposal, harvesting, treating;
	⊕ Solid waste management; collection, storage, disposal, recycling
	⊕ Street experience; Streetscape; light levels
	⊕ Adequacy of Open space provisions;
	⊕ Tree plantation, wind concerns, natural light/ventilation
	⊕ Movement and interaction patterns;
	⊕ Distribution of land use and transportation patterns;
	⊕ Functioning of Land uses and Mixed diversity;
	⊕ Existence of Impervious surfaces;
	⊕ The adaptability of environments to transit/pedestrians/bicyclists;
<b>Social</b>	⊕ Streets convenience /safety
	⊕ Adequacy of Street connectivity;
	⊕ Convenience levels of Street route directions;
	⊕ Levels of Pedestrian Accessibilities;
	⊕ Association of Social patterns and behaviour with the neighbourhood;
⊕ Inhabitants' interests represented in their development (or ignored);	
⊕ Convenience for the Older community to live and move;	
⊕ Contribution of housing/building characteristics to identity;	

	<ul style="list-style-type: none"> <li>⊕ Easy access to schools, public transport, and community facilities;</li> <li>⊕ Crime prevention measures; security, road safety, street light?</li> <li>⊕ Sufficiency of dedicated facilities; childcare centres, community activities</li> <li>⊕ Availability of sufficient traffic calming precautions;</li> <li>⊕ Diversity/variety of Housing quality;</li> <li>⊕ Demonstration of Cultural identity expression;</li> <li>⊕ Facilitation of Non-motorized transport; Walking, Cycling</li> <li>⊕ Planning and engineering standards, harmonized with lifestyles;</li> <li>⊕ Encouragements/support with public environment/public-community life</li> <li>⊕ Identity and sense of place;</li> <li>⊕ Creating Identities for more culturally diverse communities;</li> <li>⊕ Culturally diverse communities facilitated</li> <li>⊕ User's perceptive rate;</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>⊕ Connectivity is acceptable and convenient;</li> <li>⊕ Diversity of housing types;</li> <li>⊕ Affordability of housing options;</li> <li>⊕ House prices;</li> <li>⊕ Land values;</li> <li>⊕ Commercial establishments available in proximity;</li> <li>⊕ Availability of employment opportunities, types, possibility favourable;</li> <li>⊕ Rate Standard of living quality, buying power, equity;</li> </ul>

## 6. Presentation and Analysis of Data

As per the methodology, the three key stages of research are presented sequentially, in this section followed by the analysis.

### 6.1. Introduction to Case Neighbourhood

The selected Case study is from Kirula ward/GN (*Grama Niladhari*) division, which belongs to mix development zone, and is a residential neighbourhood by Chitra Lane. Chitra lane is a popular, well-accessible mix residential lane with comparatively high land value, which states as Rs.10.0 Mn. average per perch (LankaPropertyweb, Valuation Dept., 2019). Chitra Lane housing neighbourhood is a planned neighbourhood with 200 households that originated and developed replacing shanties, during the late 1990s.

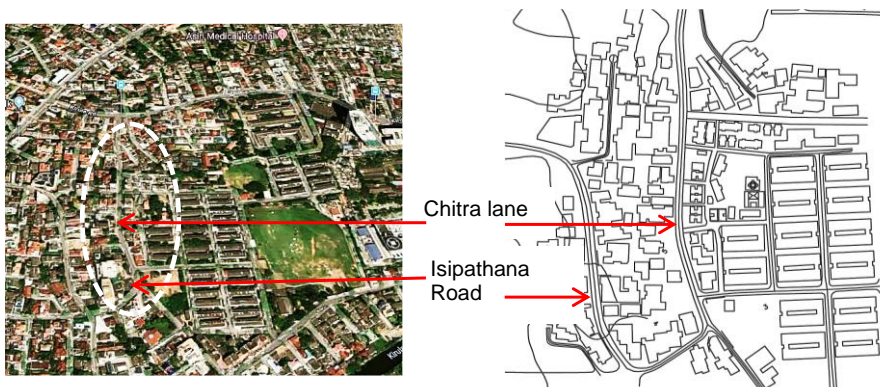


Figure 02: Physical location of Chitra Lane Neighbourhood.  
Sources; Google maps, GIS (UDA)



## 6.2. Analysis of Neighbourhood Form

Neighbourhood form is analyzed concerning its physical and non-physical components; density, land use, layout, connectivity and transport infrastructure, housing and building type and architectural character.

### 6.2.1. Density

As located in the Mix Development zone, residential use is comparatively high in the neighbourhood. Comparing the density figures of the neighbourhood with the overall Kirula ward or GN division, the observations could be briefed as follows; (Table-02).

Table-02; Details on the density of the neighbourhood and context

<b>GN (Grama Niladhari) Division/Ward-Kirula/42</b>	Resident density	106 persons per hectare (approx.)
<b>Neighbourhood area</b>	Total Area	1 hectare (0.5% of total GN area)
	Resident density	800 persons per hectare
	Residential density	200 households per hectare
	Built area	35%

This is a respectable prototype for balanced dense neighbourhoods, which share common urban facilities amongst considerably a large group of urban residents. The planning strategy for achieving high density is vertical space planning, optimizing plot size and footprint. The number of floors is limited to four (4), economizing building structures and services.

### 6.2.2. Land Use

In a spatial analysis of at macro context, it is observed that the fundamental land uses which are important to be essential for the convenient functioning of the neighbourhood are available in proximity, specifically within one (01) Kilometer radius.

Table-03; Main Land use Distribution within a 1KM radius of neighbourhood  
Source: GIS-2015, Urban Development Authority

	<b>Land Use within 1KM Radius</b>	<b>% Of Total</b>
1	Residential	56
2	Commercial	9
3	Institutional; Banks-allied, Offices	7
4	Health	3
5	Educational	4
6	Industrial	<1
7	Religious	2
8	Main Roads/Roads/Transportation	10
9	Open space/Parks/Playgrounds/water bodies	7
10	Vacant land	2



### 6.2.3. Layout

Lay out of the neighbourhood is convenient, and quite simple, with main arterial roads, and internal roads, both private vehicular and pedestrian. Every house block possesses a road frontage at different levels and is accessible directly from the internal roads. Units at ground level are accessed direct and on upper levels by common staircases.



Figure-03: Physical Layout and links to context

Internal streets are wide with a designated pedestrian space. Parking is on the road, which is made wider in connecting points, used as an extended part of the residents' living space in between households. This makes the road a common community space in the neighbourhood. Widened circulation areas at certain intervals are special features, forming shared community spaces allowing kids to play and adults to spend leisure time.



Figure-04: Internal roads and extended open areas create interactive communal spaces within the neighbourhood; for children to play and adults to hang around

### 6.2.4. Connectivity and Transport infrastructure

The neighbourhood layout demonstrates a highly respectable level of connectivity within the neighbourhood itself as well as with the surrounding urban context. In the spatial arrangement in the macro context, it can be observed that the transportation nodes, commercial centers, schools, institutes, health centers, community areas, and religious centers are in proximity. Effectively, all amenities required for living, including shopping and marketing, education, health and travelling are available within a 500-1000 meters radius.

### 6.2.5. Housing and Building Type

Wide road frontages and vertically planned housing arrangements are significantly identifiable, unique facets of the fabric, which creates a specific identity collectively with the pattern of middle-scale building heights; of four storied. There are mainly single and two-bedroom house types, and three types of buildings as 'Single bedroom- four units on floor' type, 'Single bedroom-two units' on floor type and 'Two bedroom- four units on floor' type. (Figure-05, 06)

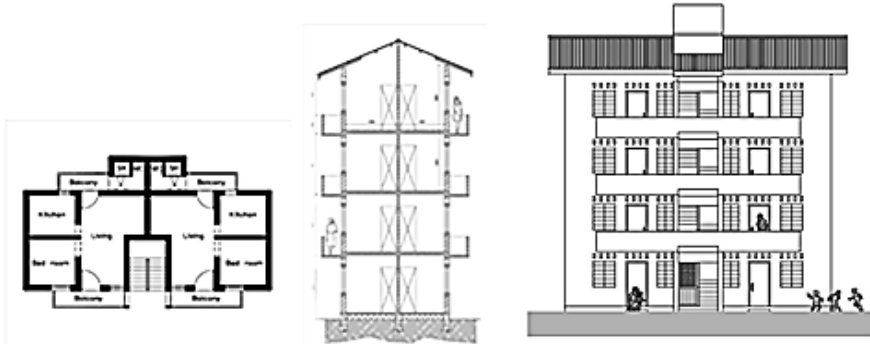


Figure-05: Housing/building types; Typical floor plan; Single & two bedroom/ 4-unit plan, section, elevation



Figure-06: Housing/building types; Typical floor plan; Single bedroom/ 2-unit plan, section, elevation

### 6.2.6. Architectural Character

Houses are densely placed in building units which were arranged in an orderly manner. Original buildings of the neighborhood have followed a unique, simple and economic design but new renovations have slightly added certain elements and made changes to the facades of the buildings. Landscape features, façade colors, detailing, railings etc. express the individuality of the household.

However, the changes are not architecturally disturbing the unique identity and yet maintain a significant character of the neighborhood.



Figure-07: Unique identity creates collectively, regardless of individual detailing.

The structures are of an almost prefabricated system involving precast concrete loadbearing walls and precast floor slabs of pre-stressed concrete. In general, walls are made of cement blocks, plastered, and painted. Nearly 65% of the houses have cemented floors and the rest are finished with tiles which are recent renovations, upgrading interior quality. Originally the houses had asbestos roofs.

### 6.3. Analysis of User Satisfaction with Sustainability

The neighbourhood is assessed by the residents' perceptions as laid out in the research design. Based on the data received from the inhabitants, the sustainability appeal of the neighbourhood as perceived by the user is analyzed within main sustainability aspects such as Environmental Responsiveness, Social Receptiveness and Economic Viability.

#### 6.3.1 Environmental Responsiveness:

Environmental sustainability and residents' appeal to environmental aspects are mostly at favourable levels, rated as good. Resource demand including energy and urban water system issues common to the country in terms of common water and power disruptions are considered issues. Connectivity, accessibility, and related transportation concerns are highly appreciated by the residents. They perceive the location of their neighbourhood as the best investment for their living. Specifically, popular Colombo schools, higher education facilities, health facilities and convenient accessibility for employment places are considered as best offered.

In the analysis of the numerical assessment of the Environmental aspect, based on descriptive statistics, residents' level of rating on satisfaction is from moderate (3) to very good (5) levels. The mean rating value is 4.88 which stays within good (4) and very good (5) levels; (Table-04).

Table-04: Numerical analysis of environmental sustainability aspect regarding corresponding attributes of urban form;

Sustainability aspect	Attribute of urban form	Residents' ratings averaged (1-5)		
		Min	Max	Mean
Environmental Aspect	Density	4.44	5.00	<b>4.95</b>
	Layout	3.80	5.00	<b>4.70</b>
	Land Use	4.50	5.00	<b>4.89</b>
	Connectivity/Transportation	4.86	5.00	<b>4.98</b>
<b>Mean of Environmental Sustainability aspect</b>		<b>4.46</b>	<b>5.00</b>	<b>4.88</b>

### 6.3.2. Social Receptiveness:

Within the social sustainability concerns, layout, the association of social pattern and behaviour with the neighbourhood, representation of inhabitants' interests, the collective identity of housing and building character, the convenience of accessibility to public services, such as schools, public transit, health, emergency services and places of worship, are identified at highly desirable standards. Dedicated facilities such as childcare, community centers, public library, skills development facilities etc. are identified as available in proximity and used by residents conveniently. Similarly, crime levels, internal road safety, street light levels and security are at highly preferable standards. It was communicated that the older community live and moves with safety and convenience in outdoors, yet they experience difficulties in internal vertical circulation. This is a matter of internal planning arrangements, and the unavailability of passenger lifts.

However, a harmony of prevailing planning and engineering standards, and encouragement and support with public environments and public life of the community are described yet necessitating improvements. It is convinced that the residents are highly satisfied with the strong community identity and sense of place developed within their living environment, facilitating culturally diverse communities living in. Diversity and variety of housing quality have not offered a wide range, however, residents themselves have tried to stamp an individual identity on their front façade detailing, and internal space arrangements. Within the parameters of social sustainability, in the numerical analysis, user responses were rated from moderate (3) to very good (5) level and the mean value is 4.60.

Table-05: Numerical analysis of social sustainability aspect regarding corresponding attributes of urban form;

Sustainability aspect	Attribute of urban form	Residents' ratings averaged (1-5)		
		Min	Max	Mean
Social Aspect	Layout	3.83	5.00	<b>4.81</b>
	Land Use	4.00	5.00	<b>4.49</b>
	Connectivity/Transport	3.60	5.00	<b>4.31</b>
	Arch. Character	4.17	5.00	<b>4.78</b>
<b>Mean of Social Sustainability aspect</b>		<b>3.90</b>	<b>5.00</b>	<b>4.60</b>

Accordingly, the residents' overall perception is that they are offered the kind of

human experience of convenient living. The most impressive realization of social expectation is implicit as the best sort of accessibility provided by the location.

### 6.3.3. Economic Viability:

A good location in a neighbourhood has higher credibility for being attracted by urban dwellers. Connectivity, accessibility and the available transportation modes are the main concerns in assessing the location of a neighbourhood. This case neighbourhood is a decent example, where people experience high benefits of living in a good location. The availability of commercial establishments and community activities, in proximity, advances the value of location. House prices are realized as very high, offering a good land value for the neighbourhood. The diversity of housing types and affordability of housing types needs improvements for likelihood. Those options were not considered in the original planning, and some variations in internal unit plans have been added as solutions to increasing space requirements of extended families, as they value the location. User-friendly designs of house units with concerns on the older community for more convenient vertical circulation within units also would collectively add more economic value to the neighbourhood.

Table-06: Numerical analysis of economic sustainability aspect regarding corresponding attributes of urban form;

Sustainability aspect	Attributes of urban form	Residents' ratings averaged (1-5)		
		Min	Max	Mean
Economic Aspect	Layout	4.00	5.00	<b>4.39</b>
	Land Use	3.33	5.00	<b>4.1</b>
<b>Mean of Economic Sustainability aspect</b>		<b>3.67</b>	<b>5.00</b>	<b>4.27</b>

### 6.3.4 Final Remarks:

The research on user satisfaction in the neighbourhood reveals the following important insights; positive and negative, focusing on sustainability in main three parameters;

- Improvements are necessary for residential density proportionately to the population density in future expansions.
- Positive usage of internal roads and open spaces used as provisions for communal gatherings are encouraged.
- The rate of tree plantation, wind, natural light and ventilation concerns are satisfactory.
- Open space provision in layout, within the neighbourhood, is a requirement.
- It is considered the best feature of the neighbourhood, resulting from its location.
- The layout within the neighbourhood is sufficiently secured for all residents within the urbanity, including kids, offering a spacious and safe outdoor setting.
- The sufficiency of dedicated facilities such as childcare, community centers, public libraries, fitness centers, playgrounds, and skills

development facilities for youth is acceptable as they are available in proximity.

- Planning and engineering standards are expected to be in better harmony with residents changing lifestyles.
- Though the outdoor environment within the neighbourhood is sufficiently convenient, residents' concern about internal vertical circulation is highly important in providing convenient and quality living, especially for urban senior dwellers.
- Diversity or variety of housing quality is an important feature to be induced, within the overall character and identity.
- Diversity of housing types is necessary for economically feasible living.
- Affordability of housing options, enabling social mixing and social diversity, is essential in the neighbourhood.
- The availability of employment opportunities within the neighbourhood itself is not sufficiently well convinced.
- Standard of living quality, building standards, and quality are satisfactory but needed to be continuously upgraded with frequent maintenance.

## 7. Conclusion

A safe and secure living environment within the neighborhood for kids, women, and elders, is the main social expectation within the neighbourhood. Dedicated facilities for children, youth and senior citizens are primarily important within the proximity of the neighborhood, and they are essential inclusions of urban living. Connectivity, accessibility and transportation mode are central concerns of urban residents, which impresses residents with the location of the neighbourhood. Specifically, this study persuades that the convenient location is a fundamental factor in the environmental, social and economic superiority of a neighbourhood. Cultural expression and the social identity stamped by their neighbourhood, are important to dignify the residents of their status of living. The living quality of the urban society needs to be transformed with the changes in requirements, such as diversity in house type, affordability disparities, and quality of housing. Without changing the basic structure of buildings, periodical improvements in the quality of houses, within strictly designated design guidelines, are necessary, to avoid the deterioration of the existing collective identity.

## References

Al-Hagla, K.,2008, Towards A Sustainable Neighborhood: The Role of Open Spaces. International Journal of Architectural Research, 2(2), Pp. 162-177, Retrieved from; [http://www.cpas-egypt.com/pdf/Khalid\\_Al-Hagla/Researches/03](http://www.cpas-egypt.com/pdf/Khalid_Al-Hagla/Researches/03), [Accessed 29th April 2019]

American Planning Association, 2016, Characteristics and Guidelines of Great Neighborhoods, Retrieved from: <http://www.planning.org/greatplaces/neighbourhoods/characteristics.htm>,



[Accessed 13th July 2013]

Azmi, D.I., Karim, H.A., 2012, Implications of Walkability towards Promoting Sustainable Urban Neighbourhood,, *Social and Behavioral Sciences* 50 ( 2012 ) 204 – 213, ASEAN Conference on Environment-Behaviour Studies, Bangkok, Thailand , Retrieved from [www.sciencedirect.com](http://www.sciencedirect.com), DOI 10.1016/j.sbspro.2012.08.028, [Accessed 12th December 2018]

Beugard, R.A., 2005, Writing Transnational Histories, *Journal of Planning History*, 4(4): 392-402, DOI; 10.1177/1538513205281633, Sage Publications

Beske, J. L. 2007. How urban form effects sense of community: A comparative case study of a traditional neighborhood and conventional suburban development in Northern Virginia, *Retrospective Theses and Dissertations*. 14669. Retrieved from: <http://lib.dr.iastate.edu/rtd/14669>, [Accessed 11th October 2018]

Bombugala B.A.w.P., Aputharajah A., 2010, *Proceedings on the International Conference on Sustainable Built Environments (ICSBE)*, Kandy, Sri Lanka.

Dehghanmongabadi, A., Hoşkara, Ş. Ö., & Shir Khanloo, N. 2014, Introduction to Achieve Sustainable Neighborhoods. *International Journal of Arts and Commerce*, 3(9), 16-26. Retrieved from; [www.ijac.org.uk](http://www.ijac.org.uk), [Accessed 28th November 2018]

Dept. of Census & Statistics, 2012, [www.statistics.gov.lk](http://www.statistics.gov.lk)

Hiller, B. & J. Hanson, 1984, *The social Logic of Space*, Cambridge

Jacobs Jane, 1961, *The death and life of Great American Cities*, New York, Random House

Kotagama S.W., 2019, PG Workshop Outlines, 'Sustainable Design', Environmental Science, University of Colombo

Lanka Property web; (2019); <https://www.lankapropertyweb.com/property-news/land-prices-in-colombo-keeps-rising-and-remains-the-best-investment-option>, [Accessed 02nd October 2019]

Valuation Dept., 2019

Lynch K., 1984. *Theory of Good city form*. Cambridge: The MIT Press

Neal, Peter, 2003 *An Urban Village Primer in Urban Vilages and the Making of Communities* edited by Peter Neal. London: Spon Press.

Nelischer, M. & L. Burcher, 1997, 'Community Design'; *Journal of Landscape Urban Planning*, 39(2/3) Perry, C.A., 1910, *Housing for the Machine Age*. New



York : Russell Sage Foundation, United States Seaman, D., Mugerauer, R., (Ed.s),1985, Dwelling, Place and Environment; Towards phenomenology of person and world, Dordrecht, Martinus, Nijhoff.

Sharifi, A. & Murayama, A., 2013, A critical review of seven selected neighborhood sustainability assessment tools. *Environmental Impact Assessment Review*, 38:73–87; Retrieved from

<http://linkinghub.elsevier.com/retrieve/pii/S0195925512000558>, [Accessed 24th September 2017]

UN Habitat III, (2015). Country Report for the Third United Nations Conference on Human Settlements- Habitat III- Sri Lanka, Ministry of Housing & Construction of the Government of Democratic Socialist Republic of Sri Lanka