



# Colombo Settlements Survey 2023





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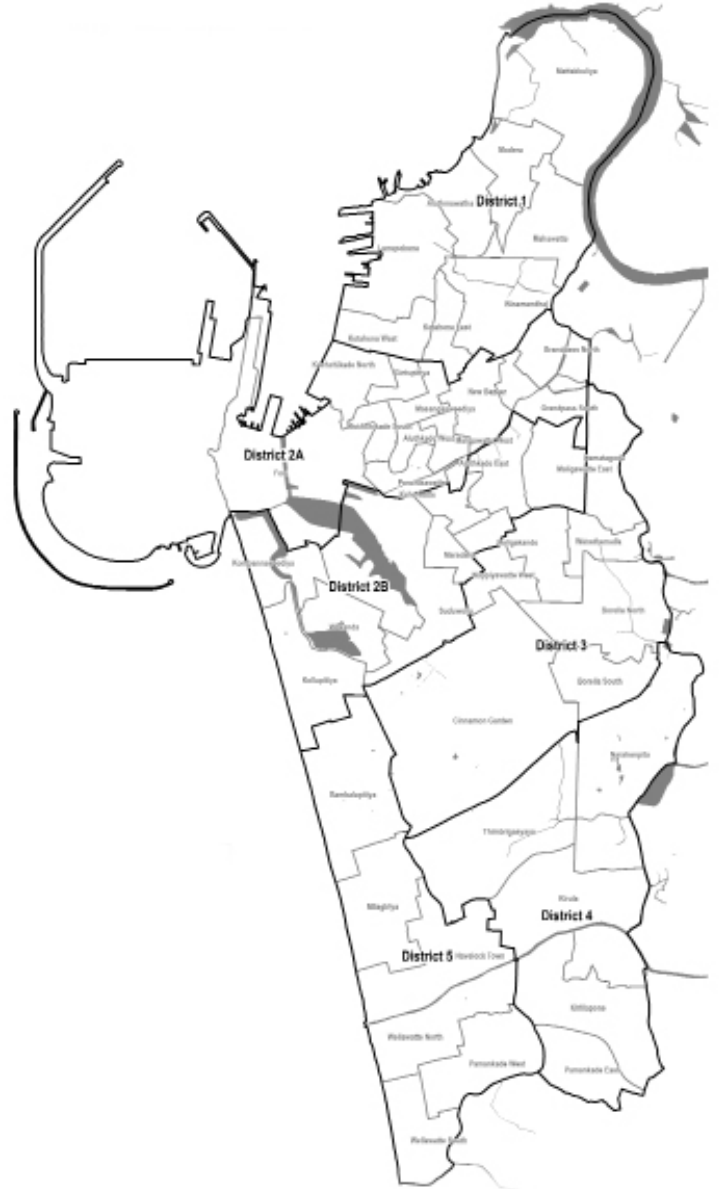
## EXECUTIVE SUMMARY

While the majority of Colombo's core population are the urban poor, they have been excluded from development visions which seek to turn Colombo into a world class city. Colombo's Urban Regeneration Programme (URP) which began in 2010 has sought to relocate low-income communities - the 68,000 families who reside on 9% of Colombo's land - to high-rise apartments. This involuntary relocation process has failed to recognise the efforts of communities and the state to upgrade settlements and improve service provisioning and in many cases has resulted in a diminished quality of life.

The past few years have shown that the urban poor are uniquely vulnerable to shocks and crises, with low-income communities in Colombo being disproportionately affected by COVID-19 lockdowns and the subsequent economic crisis. Increases in Value Added Tax (VAT) and utility tariffs have severely affected those in urban areas, with many households compromising on essential needs. Such crises also reveal the specific vulnerabilities of the urban poor and underscore the importance of research that seeks to better understand and contextualise low-income communities in Colombo.

The Colombo Settlements Survey 2023 was conducted by SEVANATHA Urban Resource Centre and Colombo Urban Lab, in collaboration with the Colombo Municipal Council, with the objective of gathering data on urban settlements related to tenure, infrastructure provisioning, socio-economic aspects and social capital. This is the third iteration of the survey which has been previously conducted in 2002 and 2012. The survey was conducted in the districts of the Colombo Municipal Council.

CSS was conducted using a scorecard featuring 27 indicators relating to physical infrastructure and housing conditions, access to services and



socio-economic factors. Each indicator is ranked on a scale of 1-5, with 5 being the most desirable score and 1 being the least desirable score. As such, a settlement can receive a total score of between 135 and 27.

Survey enumerators assessed each settlement through a focus group discussion with 5-7 members of the settlement. They demarcated settlement boundaries and recorded the number of houses, families and total population of the settlement.

## KEY FINDINGS



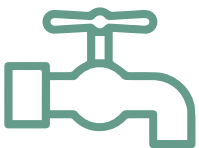
A total of **1360 settlements** were surveyed across six municipal districts of Colombo. These settlements had a total of **55,866 houses** with **87,119 families** residing in them. More than half the settlement population resides in Colombo North (District 1) with less than 5% of the population residing in Colombo West (District 5).



After adjusting for settlements that no longer exist in 2023, the **total population in settlements has grown by 15%** since 2012, while the number of families residing in settlements has increased by 3%. Since 2012, housing stock has increased by 4.8% with only 2439 new houses being added.



Colombo has a unique pattern of low-income settlements that does not conform to sprawling slums and shanties that are seen in other cities in the Global South. CSS revealed that settlements are small and fragmented in nature with a majority of settlements having 10-20 houses. Settlements with **over 200 houses accounted for only 2.8% of all settlements**. 98% of settlements are in-situ upgraded settlements as opposed to shanties or dilapidated worker's quarters.



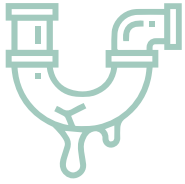
**A majority of settlements cannot be characterised as underserved as they have adequate infrastructure provisioning.** While these observations were also made in 2012, the situation has only improved in 2023. The number of settlements with individually metered water connections has grown from 75% in 2012 to 97.78% in 2023, largely due to the efforts of the NWSDB's Randiya Unit. 80% of settlements have individual toilets compared to the 47% in 2012. As of 2023, 98.8% of settlements have individually metered electricity.



Settlement households have been residing in Colombo for multiple generations and this is reflected in the built environment. In 70% of settlements, **over 80% of families have been residing in the settlement for over 30 years**. A majority of families pay municipal rates, have freehold ownership over their land and their houses are permanent structures. In many cases this has led to further investment in the property through vertical expansion and adding multiple floors. In 64% of settlements, over half the housing lots feature multiple storeys.



Poor maintenance of public infrastructure such as inner roads and drains has led to deteriorating environmental conditions and public health issues. **Only 20% of settlements had adequate inner access roads with properly maintained drains.** Non-maintenance of drains has led to flooding and increased mosquito breeding in settlements.



Issues related to sewerage systems were also widely reported, including **broken pipes and frequent blockages which led to disease**. Disease related to an increased number of rodents was one of the most reported issues.



While settlements achieved high scores for physical infrastructure indicators, only 5% of settlements had high social indicators. **80% of settlements had no functioning Community Based Organisation (CBO)** in the settlement and only 5% had a CBO that was actively engaging in community work. 69% had no access to a community centre, even in a neighbouring settlement. 84% have no access to community credit or savings schemes in the settlement.



In the majority of settlements fewer than **10% of families receive Samurdhi or other government welfare benefits, while in 3.8% of settlements over 50% of households receive Samurdhi**.



Settlements are well located to access employment, hospitals and schools. Over half of settlements are located within 250 metres of a bus stand. However, access to public space is very poor, with **only 4% of settlements having an open space within the settlement**.



A majority of settlements are not at risk of natural hazards such as floods and landslides, and the percentage of settlements at an **extremely high vulnerability to hazards has reduced from 11% in 2012 to 1.5% in 2023**. Only 5.6% of settlements reported that flooding was a disadvantage of their settlement's location.



When combining physical and social indicator scores, **32% of settlements can be characterized as neighbourhoods with high sustainability while 66% can be considered neighbourhoods with moderate sustainability**. Less than 1% of settlements could be characterised as a neighbourhood with poor sustainability. 436 settlements that are considered as neighbourhoods with high sustainability should not be included in any list the state uses for relocation or other activities as they are no longer in need of such interventions. The continued presence of these communities in lists of under-served settlements erases this significant success story and suggests that communities cannot improve or upgrade.

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# LIST OF ABBREVIATIONS

<b>URP</b>	Urban Regeneration Programme
<b>CSS</b>	Colombo Settlements Survey
<b>CBO</b>	Community Based Organisation
<b>NWSDB</b>	National Water Supply and Drainage Board
<b>CMC</b>	Colombo Municipal Council
<b>UDA</b>	Urban Development Authority
<b>MHP</b>	Million Houses Programme
<b>NHDA</b>	National Housing Development Authority
<b>CDC</b>	Community Development Council
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children’s Fund
<b>MSWC</b>	Municipal Solid Waste Collection
<b>FGD</b>	Focus Group Discussion
<b>SCURP</b>	Support to Colombo Urban Regeneration Project
<b>USS</b>	Under-served settlements

## MESSAGE BY THE PRESIDENT OF SEVANATHA URBAN RESOURCE CENTRE

It gives me immense pleasure to share my thoughts about the completion of Colombo Settlements Survey 2023 and publishing this profile. SEVANATHA in partnership with Colombo Municipal Council has completed two previous surveys on Colombo Settlements in 2002 and 2012 and the profiles published on these surveys have been widely used by the development partners at different levels. The lack of updated information about the settlement communities in Colombo since 2012 created a felt need for undertaking a new survey and updating the Settlement Profile of 2012.

In our effort to find some financial support to undertake this survey, the Colombo Urban Lab has committed to join hands with SEVANATHA to carry out the survey. As the first step, SEVANATHA made a presentation to the Colombo Municipal Council about the proposed settlements survey and obtained its guidance and assistance to conduct the survey in the latter part of 2022.

The survey was conducted with the participation and support of community leaders and members and employed the Focus Group Discussion method to gather the required data and information. The utilisation of smart application in mapping the settlement locations provided added value to the survey and produced a comprehensive profile.

I wish to thank the Colombo Municipal Council and Colombo Urban Lab for extending their support to SEVANATHA in this important exercise as well as the survey team of SEVANATHA who has made a great contribution in completing the field survey work on time.

I hope that this document can be utilised by development partners including the research & academic community and make appropriate interventions to improve the wellbeing of Colombo city.

**K.A. Jayaratne**  
PRESIDENT,  
SEVANATHA Urban Resource Centre  
December 2023

# MESSAGE BY THE DIRECTOR OF COLOMBO URBAN LAB

I am very pleased that Colombo Urban Lab was able to partner with SEVANATHA for the Colombo Settlements Survey 2023. This survey series first conducted by SEVANATHA in 2002 and then again in 2012 has been an invaluable resource for any one working on urban development and the city of Colombo.

It is extremely important to note that working class settlements in Colombo are quite different to other cities in the Global South in terms of the state of their physical infrastructure and characteristics. We must appreciate the efforts over the years by institutions and agencies like the Colombo Municipal Council, the National Housing Development Authority, the National Water Supply and Drainage Board that have hugely contributed to improving development indicators. Equally important has been the efforts of the Community Development Councils that have worked hard to gain grid access for the communities, and to access state resources to upgrade housing and public facilities.

The fact that over 90% of Colombo's settlements can be classified as permanently upgraded is also testament to the hard work and investment of working class communities who not only consider Colombo their village, but also have incrementally built and improved their housing over time. While this survey series began twenty years ago to identify where and how Colombo's settlements can be improved - thus

the original title 'Underserved Settlements Survey of Colombo' - that the word 'underserved' is no longer applicable and in fact led to the survey name being revised in 2023 is something all stakeholders and communities should be proud of, and build on in the years to come.

This survey has been over a year in the making and I'm very grateful to the SEVANATHA research team for involving us in every stage, and we have learnt a lot from them. We appreciate the support and encouragement from the Colombo Municipal Council and we look forward to this report being a resource for the CMC in their work.

Funding support from Foundation Open Society Institute made the Colombo Settlements Survey 2023 possible. A thank you also to the academics, urbanists and development specialists who took the time to provide feedback on the indicators and the methodology.

Finally, the Colombo Settlements Survey 2023 would not have been possible without the hard work and commitment of the Survey Enumerators. This was not a small number of settlements to cover, nor were the indicators ones that could be filled within a few minutes. The richness and accuracy of the data is all thanks to their dedication, and we are all very grateful for their efforts.

**Iromi Perera**  
DIRECTOR,  
Colombo Urban Lab  
December 2023

# CHAPTER 01: INTRODUCTION

The last decade has seen unprecedented urban change in Sri Lanka, as post-war development efforts focused on turning Colombo into a 'world class city'. This has led to the wide scale transformation of the urban fabric through restoration of historical buildings, influxes of luxury apartments and hotels, the beautification of parks and new public spaces and the relocation of public markets.

Conversely, the urban poor, who make up the majority of residents of Colombo's core, are often left out of visions of urban development, and only considered in terms of the value of the land they reside on. Instead, Colombo's Urban Regeneration Programme which began in 2010, has sought to relocate over 68,000 families who reside on 9% of Colombo's land, to high-rise apartments. The involuntary relocation process has in many cases failed to improve the lives of the urban poor.

In the last few years, the urban poor have been disproportionately affected by COVID-19 lockdowns which led to a loss of wages, savings and assets. The pandemic rendered swathes of the urban poor vulnerable to the economic crisis of 2022, as food and fuel shortages, coupled with a soaring cost of living severely affected those in urban areas. While national poverty doubled in 2022, it tripled to 15% in urban areas. Increases in Value Added Tax and utility tariffs have taken a further toll on households who are compromising essential needs and taking on debt to meet day-to-day expenses.

This report seeks to fill the data gap on the urban poor and provide an updated understanding of low-income settlements in Colombo.

## COLOMBO SETTLEMENTS SURVEY

The Colombo Settlements Survey (CSS) 2023 was conducted jointly by SEVANATHA Urban Resource Centre and Colombo Urban Lab, in collaboration with the Colombo Municipal Council. CSS was conducted in low-income settlements within the boundaries of the Colombo Municipal Council. The objective of the CSS is to gather data on urban settlements including characteristics related to tenure, physical infrastructure, socio-economic aspects and social capital.

Previous surveys of settlements have been carried out by SEVANATHA in 2002 and 2012, making this the third iteration of the survey. While 20 original indicators used in the previous surveys have continued to be scored in 2023, an additional seven indicators have been introduced to collect more information on settlement history, access to transport and open space, and trends in housing and rental population. The addition of these new indicators has been informed by ground-level changes, as well as by frameworks and targets set forward by Sustainable Development Goals, in particular Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. These indicators offer insight into new dynamics of changing settlements, and also help to build a more holistic understanding of sustainable and livable cities.

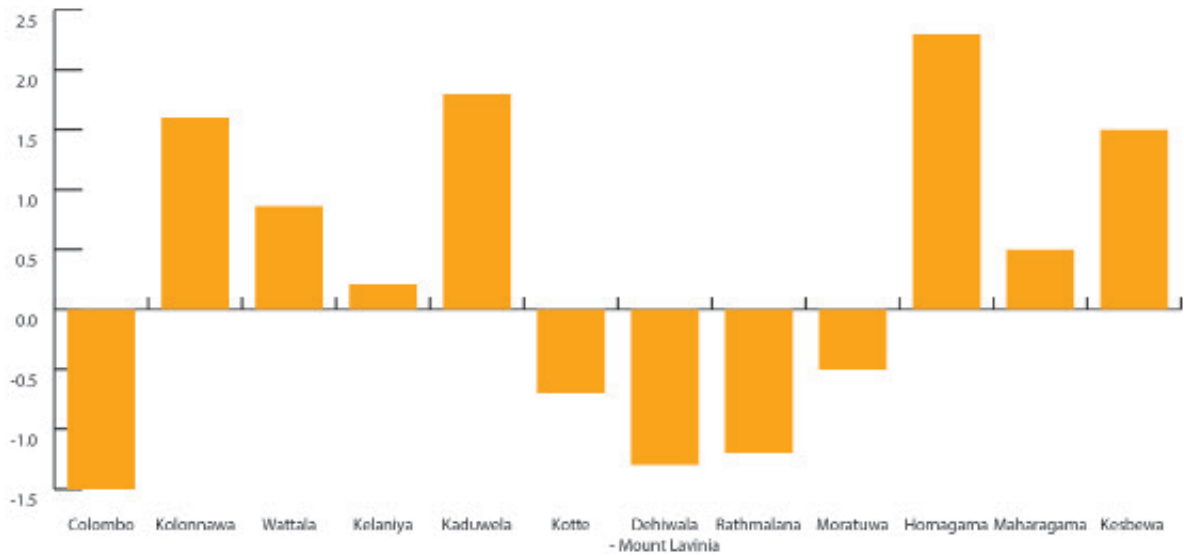
While the two previous surveys have used the terminology of 'underserved settlements', this round of the survey instead uses 'settlements' to refer to low-income settlements (watte) in Colombo. This is largely due to evidence that an overwhelming majority of settlements and their occupants are no longer underserved in terms of housing, physical infrastructure and service provisioning. As such, to continue to refer to these settlements as 'underserved' is inaccurate and does not reflect the impressive progress that has been made by communities and state institutions over time in upgrading settlements and improving service provisioning. This survey further shows that Colombo's urban poor do not conform to templates of sprawling slums and shanties as seen in megacities in the region or in the wider global south.

## BACKGROUND TO COLOMBO'S SETTLEMENTS

Colombo city, as defined as the area administered by Colombo Municipal Council is 37km<sup>2</sup> (excluding Port City) and consists of 47 Municipal Wards. These 47 Municipal Wards are clustered into Six [06] Municipal Districts namely, D1, D2A, D2B, D3, D4, and D5. As per handbooks compiled by divisional secretariats, the estimated population in Colombo Divisional Secretariat and Thimbirigasyaya Divisional Secretariat are 344,615 and 251,441 respectively (2020). As such, an estimated total population within the Colombo Municipal Council boundaries is 596,056. As per the 2012 census, the population was 561,314.

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<sup>1</sup> Sevanatha, 2002. *Poverty Profile of Colombo City*.



Population growth rate in Colombo district: 2002- 2012 (Source: 2012 Census)

Low-income settlements have a long history in the city, with many dating back to Colonial British rule. Workers migrated to work in the harbour and adjoining factories, and as such were concentrated in North Colombo neighbourhoods such as Mattakkuliya, Mahawatta and Bluemendhal. The inadequacy of low-income rental housing led to the encroachment of marginal lands such as wetlands, railway and canal reservations - which were mostly found in the Eastern and Southern parts of the city.

It was estimated that around 1506 urban poor settlements were located within the CMC area as in 1998/99. However, the unique character of these settlements is that they are relatively small in size i.e. 74% of them have less than 50 housing units while the large settlements with more than 500 units accounts for about 0.7% of the urban poor settlements in Colombo.<sup>2</sup> In 2002, the inaugural settlements survey by SEVANATHA recorded 1614 settlements, while the subsequent 2012 survey the number of settlements had grown to 1735, with an increase in migration following the conclusion of the civil war in 2009 cited as a possible reason for this trend. As Colombo’s settlements have grown and changed, there have been significant efforts by the state and other actors to upgrade and improve amenities and service provision in settlements. These are detailed in the timeline below:

<sup>2</sup> UNDP (United Nations Development Programme). 2023. 2023 Global Multidimensional Poverty Index (MPI): Unstacking global poverty: Data for high impact action. New York.

Year	Milestone
1921	Sir Patrick Geddes initiates Colombo's first city plan, with the concept of making Colombo 'Garden City of the East'
1949	Sir Patrick Abercrombie's plan
1973	Ceiling on Housing Property Law
1973	Establishment of Common Amenities Board
1978	Urban Development Authority established
1978	Colombo Master Plan Project under UNDP
1979	National Housing Development Authority established
1978 - 1986	Urban Basic Services Improvement Programme. Funded by UNICEF, this was the first comprehensive programme in Colombo to upgrade amenities and health conditions of the urban poor.
1978 - 1984	Slums and shanty improvement programme conducted by UDA including onsite upgrading, provision of enumeration cards, sites and services projects. USS were designated as special project areas and thus allowed to have reduced lot sizes and be exempt from normal building regulations.
1978 - 1983	Hundred Thousand Houses Programme
1984 - 1989	Million Houses Programme. (See box 1.)
1985	The UDA has developed 'Colombo Development Plan'
1998	Sustainable Townships Programme. Real Estate Exchange Private Limited (REEL) established. First high-rise apartments for low-income households built in Sahaspura in Borella, Colombo 08.
2010 - ongoing	The UDA was brought under the Ministry of Defence. 'Urban Regeneration Programme' was initiated. The aim of the programme was to relocate 68000 families from commercially lucrative lands (900 acres) in Colombo, to high-rise apartments. (See box 2.)
2012 - 2020	Metro Colombo Urban Development Project funded by the World Bank was initiated. The aim of the project was to complement ongoing urban regeneration programs of GoSL by reducing the physical and socioeconomic impacts of flooding in the Metro Colombo Region and improving priority local infrastructure and services.

*Timeline of Housing and Urban Planning Milestones in Colombo*

**BOX 1. CASE STUDY 1: MILLION HOUSES PROGRAMME**

Sri Lanka's Million Houses Programme (MHP) was officially launched in 1984 with the goal of improving infrastructure and providing shelter for all through the construction of one million houses by 1989. The programme was initiated in a context of limited fiscal space for state provision of social housing. The MHP's 'people's process' of aided self-help housing was a significant housing policy shift. Implemented by the newly established National Housing Development Authority (NHDA), the MHP had a guiding principle of "Minimum intervention and maximum support by the State" and a variety of loans and supporting packages were made available to households with a monthly income of under LKR1200. MHP was characterised by participatory planning approaches such as community action planning and the development of community building guidelines in consultation with communities. To implement the urban housing sub-programme, the NHDA created the Urban Housing Division which absorbed the Slum and Shanty Division of the Urban Development Authority.

In order to make investment in housing worthwhile, the NHDA introduced land regularisation systems and provided tenure to low-income urban settlements. In addition to individual houses, the urban housing sub-programme undertook service provisioning and upgrading projects. Community development councils (CDCs) were formed at a settlement level as agents who facilitated decision making and programme implementation. Under this programme, settlements were upgraded and received piped water, bathing places, electricity, common toilets, improved roads and drains. Community contracting through the CDCs also ensured that infrastructure works were sustainable and long lasting. Improved services, physical upgrading and secure tenure that are seen in settlements today are a lasting legacy of the MHP. The MHP received the World Habitat Award in 1988, and its learning influenced housing programmes of the World Bank and United Nations, as well as slum upgrading programmes and housing policies of countries in the global South.

*Abeyasekera, Asha L. and Vagisha Gunasekara. 2022. "'Square-rule Paper Engineers':*

*People, Power, and Participation in Sri Lanka's Million Houses Programme." Case Study. Accountability Research Center;*

*Redman, S. 2005. A study of support-based housing and community participation in the Million Houses Programme, Sri Lanka 1977–1989. New South Wales: NSW Architects Registration Board;*

*Joshi, S & Sohail, M. 2010. Aided self-help: The Million Houses Programme – Revisiting the issues. Habitat International. 34. 10.*



## BOX 2. CASE STUDY 2: URBAN REGENERATION PROGRAMME

The Urban Regeneration Project was initiated by the UDA in 2011 with goal of “improving under-served settlements in the city of Colombo through private developers and liberate (sic) prime lands for commercial activities” This is supported by the claim that 50% of Colombo’s population resides on 9% of its land. The URP seeks to relocate over 68,000 families residing in low-income settlements to high-rise apartments. The UDA has asserted that these families reside in slums and shanties, even though surveys have shown that a majority of settlements have adequate housing and service provision. Phase I of the URP has been severely criticised for involuntary relocation of families, including the use of military personnel in the eviction process. Military force, intimidation and harassment were used to evict people from their homes and the process did not follow Sri Lanka’s laws related to land acquisition. Households received no compensation for their houses even when they had title deeds and received only a house in exchange with no consideration of size of family or previous house. In many cases the 450 sq ft apartments were far smaller than the destroyed homes of families.

Problems continued post-relocation, as high-rise apartments had no proper maintenance and could not form Condominium Management Corporation as residents did not own the apartments. Dirty public areas, broken lifts and no lighting of common spaces were some regular issues seen in these apartments. The UDA continued to play a punitive rather than facilitating role in apartment management, in some instances cutting water supply of individual families who did not pay rent. Relocated families reported that compared to the services received previously, that their quality of life had worsened after relocation due to lack of space, amenities, privacy and safety. An increase in crime and substance abuse was also noted, with high-rises acting as vertical slums instead of a springboard to modern urban living.

Phase III of the Urban Regeneration Programme began in 2019 with funding from the Asian Infrastructure Investment Bank and will involve the construction of 5,500 housing units. As per the 2022-2024 corporate plan of the UDA, 5346 housing units are to be completed within that time period, under SCURP (Support to Colombo Urban Regeneration Project) which supports the continued implementation of Phase 3 of the URP.

*Perera, I (2022) Urban Regeneration Programme. Bank Information Centre.*

*Perera, I (2016) Living it down: Life after relocation in Colombo’s high-rises, CPA.*

*Urban Development Authority (2022). Corporate Plan 2022-2024.*

# CHAPTER 02: METHODOLOGY OF THE COLOMBO SETTLEMENT SURVEY 2023

## 2.1. METHODOLOGY OF THE COLOMBO SETTLEMENT SURVEY

The Colombo Settlement Survey (2023) was a participatory survey that engaged community leaders, residents of the settlements as well as a team of enumerators and project staff from SEVANATHA and Colombo Urban Lab. The survey was conducted through focus group discussions (5-7 members per settlement) in each settlement over the course of 3 months from May to July 2023. The survey methodology consisted of the following steps:

**STEP  
1**

Reviewing relevant literature

**STEP  
2**

Gathering data of settlements based on previous studies and surveys

**STEP  
3**

Organising the recent base maps of the CMC area

**STEP  
4**

Preparing of the survey scorecard

**STEP  
5**

Recruiting survey enumerators

**STEP  
6**

Conducting training sessions for survey enumerators

- STEP 7** Conducting pilot testing of the survey
- STEP 8** Finalising maps and survey score card with the comments from the CMC and other stakeholders and findings of the pilot testing
- STEP 9** Carrying out an awareness meeting on the survey for the community leaders of the CMC districts
- STEP 10** Carrying out an awareness meeting for the officials of the CMC district offices
- STEP 11** Carrying out the CSS
- STEP 12** Facilitating and supervising the survey
- STEP 13** Verifying and cleaning the data
- STEP 14** Tabulating and analysing the data
- STEP 15** Preparing the CSS Report 2023

## 2.2. THE SURVEY SCORE CARD

The scorecard method (introduced by The Urban Governance Initiative (TUGI) of UNDP – 1997/8) was used in developing the CSS scorecard. The scorecard was developed through the use of a structured questionnaire developed by SEVANATHA (Annex 3), to gather numeric values relating to physical and socio-economic conditions of the settlements.

The survey scorecard which was developed for CSS 2023 was based on the scorecard used for the 2012 USS Survey. The new scorecard has seven new characteristics in order to contemporize CSS 2023. Having understood that an overall score may paint a different picture as to the conditions of the settlements (physical indicators may be good, while socio-economic indicators bad—the low score for socio-economic conditions may be offset by the high scores in the physical indicators, generating an average overall score for the settlement) the new report makes use of two other scores, exclusively for physical characteristics of the settlements and socio-economic characteristics of the settlements, to better understand the conditions of the settlement.

### 2.3. ASPECTS, CHARACTERISTICS AND INDICATORS OF THE SURVEY SCORE CARD

The characteristics given below were all assigned scores on a scale of 1-5 (1 being least desirable, and 5 being most desirable). For the overall indicator scorecard, each settlement is then scored out of a total score of 135 and categorised into four groups based on the overall score received.

Table 2.1: Aspects and Characteristics of the CSS 2023

No.	Aspect	Characteristics
<b>Physical Indicators</b>		
1	Land Ownership and Tenure Type	1. Land ownership of the settlement 2. Type of tenure rights 3. Duration of occupants residing in the settlement 4. Rental housing situation in the settlement
2	Physical Condition of Houses	5. Conditions of houses 6. Level of housing development 7. Availability of toilet facilities for housing units
3	Level of Basic Services	8. Access to potable water supply 9. Availability of potable water 10. Access to sewerage system 11. Electricity for private use 12. Municipal solid waste collection service 13. Condition of inner access roads 14. Proximity to bus stop from the settlement 15. Access to open space and green space 16. Risk of facing dengue fever by the community

Socio-economic Indicators		
4	Status of Selected Socio-Economic Aspects	17. School attendance of school-going age children 18. Dependency rate of the families 19. Income level of the households 20. Recipient families of government subsidies including Samurdhi and other benefits 21. Number of single parent (mother/father/ caretaker) headed families
5	Status of Social Capital	22. Functioning of Community Based Organisations (CBOs) in the settlement 23. Availability of and accessibility to a community centre 24. No. of families that engage in community savings and credit programs 25. Risk and vulnerability for hazards (natural hazard—flooding etc.) 26. Level of displacement risk as perceived by the community 27. Payment rates to the municipality

## 2.4. USE OF SCORECARD METHOD TO ASSESS THE SETTLEMENTS

After the stakeholder meetings and training of enumerators was completed, a total of 10 enumerators assigned to 5 enumerator teams were deployed to each Municipal District to carry out the survey. A survey team consisted of 2 enumerators who were advised to conduct FGDs with about 5-7 members of each settlement. The survey enumerators were required to visit and observe the boundaries, access roads, buildings and other development activities in the settlement. The boundary of settlements was demarcated through 'Google Earth Pro' applications by survey enumerators with community member participation. Subsequently, boundary polygons for each settlement were created using the same smart application and converted to layers on Arcmap.

Enumerators compared their observations with the aspects and characteristics provided in the scorecard and subsequently filled in the scorecard. The total number of houses, number of families and total population have been recorded based on approximate numbers provided by the community leaders and members of the community who participated in the survey. Therefore, the figures provided in this report must be considered as approximate figures with 90%- 95% accuracy.

The scores assigned to each characteristic are on a scale of 1-5 based on the qualitative and quantitative aspects of each characteristic assessed from poorest to not poor situation (1-extremely poor, 2- very poor, 3-poor, 4-marginal poor, 5-not poor).

As per the scorecard the maximum score that could be obtained by one settlement is a maximum of 135 and a minimum of 27. Based on the overall score received by the settlement, it would fall into one of the following categories.

Table 2.2: Categories: Categorisation of settlements based on overall indicator score

All Indicators		
Score Range	Category	Definition
108-135	Neighbourhoods with Highly Sustainability	<ul style="list-style-type: none"> <li>• Strong Assets Base</li> <li>• Reliable and Easy access to Grid Services</li> <li>• Access to Common Amenities</li> </ul>
81-107	Neighbourhoods with Moderate Sustainability	<ul style="list-style-type: none"> <li>• Good Assets Base</li> <li>• Reliable and Easy Grid Services</li> <li>• Limited Access to Common Amenities</li> </ul>
54-80	Neighbourhoods with Low Sustainability	<ul style="list-style-type: none"> <li>• Weak Assets Base</li> <li>• Weak Access to Grid Services</li> <li>• Weak Access to Common Amenities</li> </ul>
27- 53	Neighbourhoods with Poor Sustainability	<ul style="list-style-type: none"> <li>• Very Weak Assets Base</li> <li>• Very Weak Access to Grid Services</li> <li>• Very Weak Access to Common Amenities</li> </ul>

Examples of some settlements that fall into the (04) categories above:

**NEIGHBOURHOODS WITH POOR SUSTAINABILITY**

297/7 watte:



Images 1 and 2: Recent photos of 297/7 watte in the Wanathamulla Ward, in CMC District 3

297/7 is located on Baseline Road, Colombo 9– in the Wanathamulla Ward in District 3. The settlement has a total of 5 houses, with 5 families and a population of 15 residents. The land (on which these houses have been built) is owned by the Railway Department (Ceylon Government Railway), and the residents have no legal ownership of their property. The houses are also located alongside the railway track, and all houses have been built with temporary materials. The settlement has minimal access to grid services (they do not have access to electricity) and has high unemployment rates. The residents were previously part of a settlement that had been relocated, but they had not received houses. The settlement obtained low scores across both the physical and socio-economic indicators.

**NEIGHBOURHOODS WITH LOW SUSTAINABILITY**

29 T watte:



Images 3 and 4: Recent photos of 29T watte located in the Kirulapone Ward in CMC District 4

29 T watte is located on 7th Lane, D.E. Colabage Mawatha, Kirulapone–in the Kirulapone Ward in District 4. There are a total of 54 houses with 110 families and a population of 300 residents. According to the community, the land is owned by the Urban Development Authority (UDA). The

houses have been built with both permanent and temporary materials. 60% - 79% of houses in the settlement have been built with permanent materials, and the majority use common toilets. Only around 10 houses have individual toilet facilities. Individual water and electricity connections are also available. The drainage system is not functional, and the settlement is quite congested overall. Drug issues are also prevalent in the settlement.

**120 watte:**



*Images 5 and 6: Recent photos of 120 watte located in the Dematagoda Ward in CMC District 3*

120 watte is located on Mahawaila Lane, Baseline Road, Dematagoda—in Dematagoda Ward in District 3. The settlement has 64 houses, 75 families and a total population of 470 residents. The houses have been built using both permanent and temporary materials and 60-79% of houses are permanent structures. A majority of the residents don't have individual toilet facilities, and use improvised toilet facilities. Individual water and electricity connections are available. Half of the houses in the settlement have no proper sewerage system. No regular waste collection services are available either. Many of the residents complained about the flooding situation during the rainy season. During the rainy season, the Dematagoda canal overflows, and floods the settlement. The residents face many issues because of this, including infections, disease and more recently, crocodile threats. They mentioned that they are unable to go to school or work because of the floods during the rainy season. Social indicators are at a low level too.



**NEIGHBOURHOODS WITH MODERATE SUSTAINABILITY**

*Nawagampura Stage 1:*



*Images 7 and 8: Recent photos of Nawagampura located in the Grandpass North Ward of District 2A*

Nawagampura is located on Stace Road, Colombo 14 – in the Grandpass North Ward of District 2A. There are a total of 52 houses, 70 families and 255 residents. The land is owned by the NHDA and a majority of the houses are built with permanent structures. More than 75% of houses have G +1 floors. A majority of the houses have individual toilet facilities as well as common facilities. The houses have individual electricity and water connections. Compared to other settlements, access to physical and social infrastructure is at a good level. Community halls and open spaces are also available and used commonly with other settlement communities. Drug issues and robberies are prevalent.

**NEIGHBOURHOODS WITH HIGH SUSTAINABILITY**

*Bo Sevana:*



*Images 9 and 10: Recent photos of Bo Sevana located in the Narahenpita Ward in CMC District 4*

Bo Sevana is located on Mangala Road, Colombo 8—in the Narahenpita Ward in District 4. There are a total of 45 houses, 53 families and a population of 325 residents in this settlement. The land (on which the houses in the settlement have been built) belongs to the NHDA. All houses are built with permanent structures and more than 75% of houses have G+1 floor. All houses have individual water, electricity connections as well as toilets. Inner access roads within the settlement are in good condition. The settlement has an active CBO, and community hall.

*Nugagahapura:*



*Images 9 and 10: Recent photos of 29T watta located in the Kirulapone Ward in CMC District 4*

Nugagahapura is located on Lionel Edirisinghe Mawatha, Colombo 5 in the Kirulapone Ward in District 4. There are a total of 66 houses, 138 families and 740 residents. The residents have freehold ownership. All houses have been built with permanent materials, and 50% of the houses have G+1 floors. All houses have individual water, electricity and connections as well as toilets. The settlement has a two storey community centre with a gym inside—although this remained closed.

**2.5 CARRYING OUT THE CITY-WIDE SURVEY AND DATA PRESENTATION TO THE CMC**

The Project Team of SEVANATHA carried out the city-wide settlement survey in Colombo during May 2023-July 2023 (See acknowledgements for list of survey enumerators). After the completion of the survey, the data cleaning, verification, tabulation and analysis were carried out from August to November 2023. The first presentation on the key findings of CSS 2023 was made to the CMC on the 2nd of November 2023. The second presentation was made to a group of students of the degree program of Town & Country Planning of the University of Moratuwa on 14<sup>th</sup> November 2023.

# CHAPTER 03: OVERVIEW OF SETTLEMENTS

Chapter 3 presents an overview of the Colombo Settlement Survey (CSS) 2023. This section provides an overview of the distribution of the settlements as well as the typology of settlements for the CMC Districts.

## **3.1. MUNICIPAL WARDS AND DISTRICTS OF THE CMC AREA**

Based on the data of the USS Survey 2012, the SEVANATHA Project Team listed 1735 settlements in the city. These settlements were segregated according to the municipal districts and the wards of their location. The ward level settlement list was used as a guide to locate the current settlements in the field by the survey enumerators. The survey enumerators were provided with municipal districts, wards and sub-ward maps to demarcate each settlement that they identify. Settlement level data was thus linked with the respective location map.

The City of Colombo is divided into six (06) municipal districts by the CMC, to carry out the administrative functions and service functions through the District Offices. The municipal wards (total 47 wards) are grouped into the municipal districts as indicated below.

Table 3.1 : Municipal Districts and Wards

	Municipal District	Ward Number	Ward Name
1	District 1 (Colombo North)	1	Mattakkuliya
		2	Modara
		3	Mahawatta
		4	Aluthmawatha
		5	Lunupokuna
		6	Bluemandhal
		7	Kotahena East
		8	Kotahena West
2	District 2A (Colombo Central)	9	Kochchikade North
		10	Jinthupitiya
		11	Masangasweediya
		12	New Bazaar
		13	Grandpass North
		14	Grandpass South
		16	Aluthkade East
		17	Aluthkade West
		18	Kehelwatta
		19	Kochchikade South
		20	Fort
		28	Maligawatta East
3	District 2B (Colombo Central)	15	Maligawatta West
		21	Slave Island
		22	Wekanda
		23	Hunupitiya
		24	Suduwella
		25	Panchikawatta
		26	Maradana
		27	Maligakande
37	Kollupitiya		

4	District 3 (Borella)	29	Dematagoda
		30	Wanathamulla
		31	Kuppiyawatta East
		32	Kuppiyawatta West
		33	Borella North
		35	Borella South
		36	Cinnamon Garden
5	District 4 (Colombo East)	34	Narahenpita
		40	Thimbirigasyaya
		41	Kirula
		44	Kirulapone
		45	Pamankada East
6	District 5 (Colombo West)	38	Bambalapitiya
		39	Milagiriya
		42	Havelock Town
		43	Wellawaththa North
		46	Pamankada West
		47	Wellawaththa South

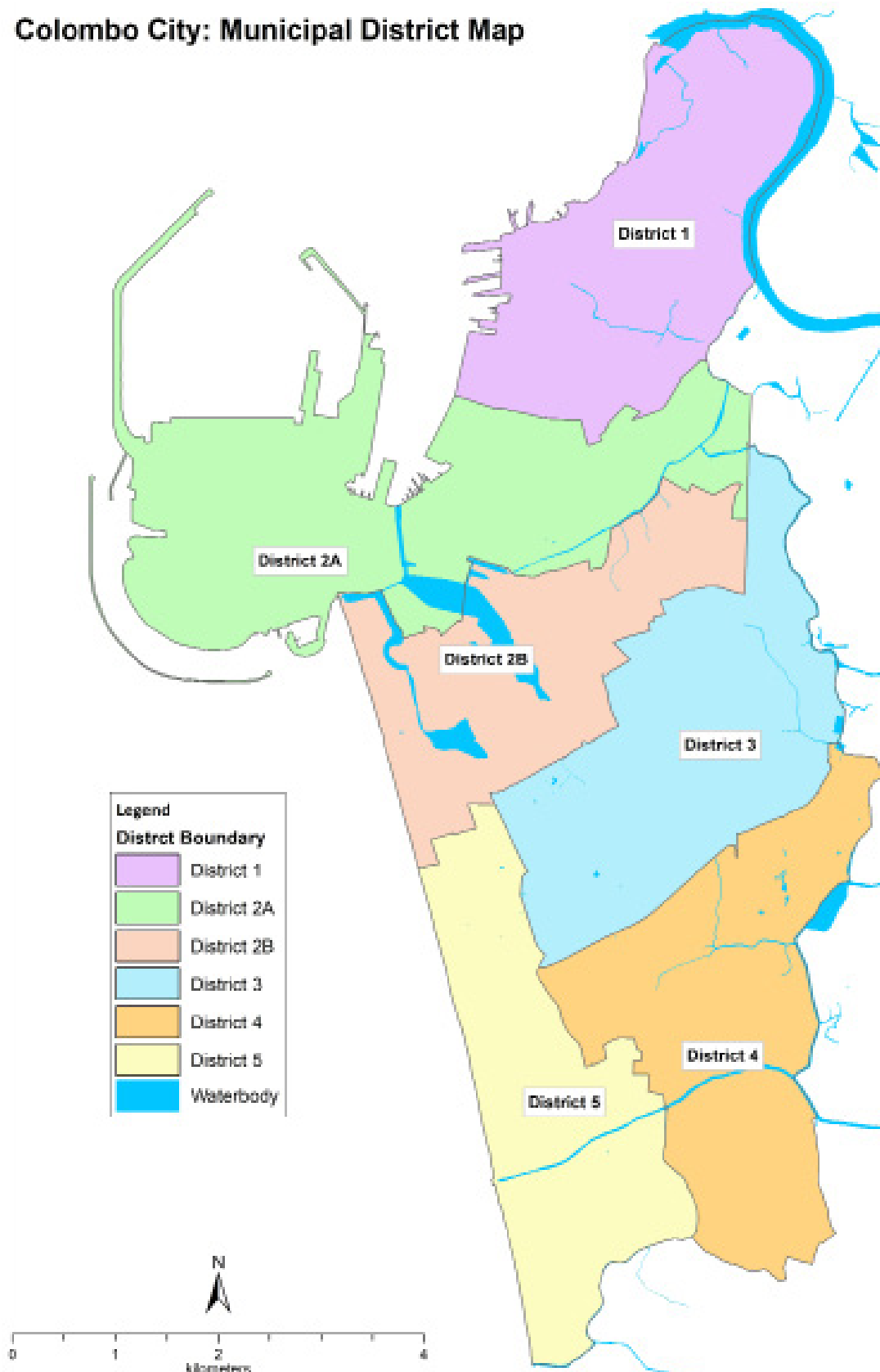
*(Source: Poverty Profile, City of Colombo-February 2002)*

The boundaries of the CMC districts and the wards are indicated in the following maps No. 1 and 2.

The project team of SEVANATHA prepared a sub-ward map for the purpose of carrying out the CSS Survey, shown in Map 3.

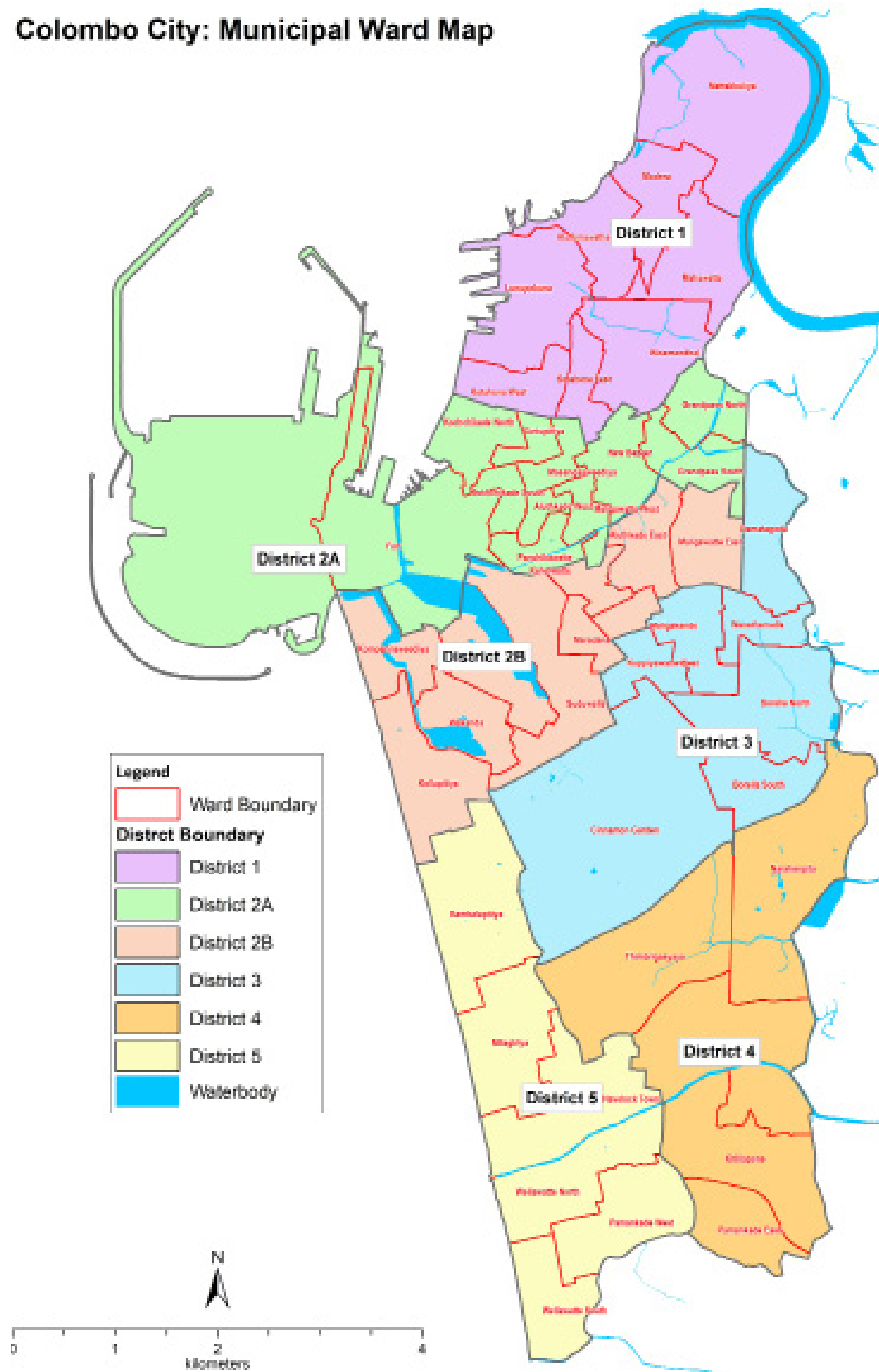
Map 1: Colombo City: Municipal District Map

### Colombo City: Municipal District Map



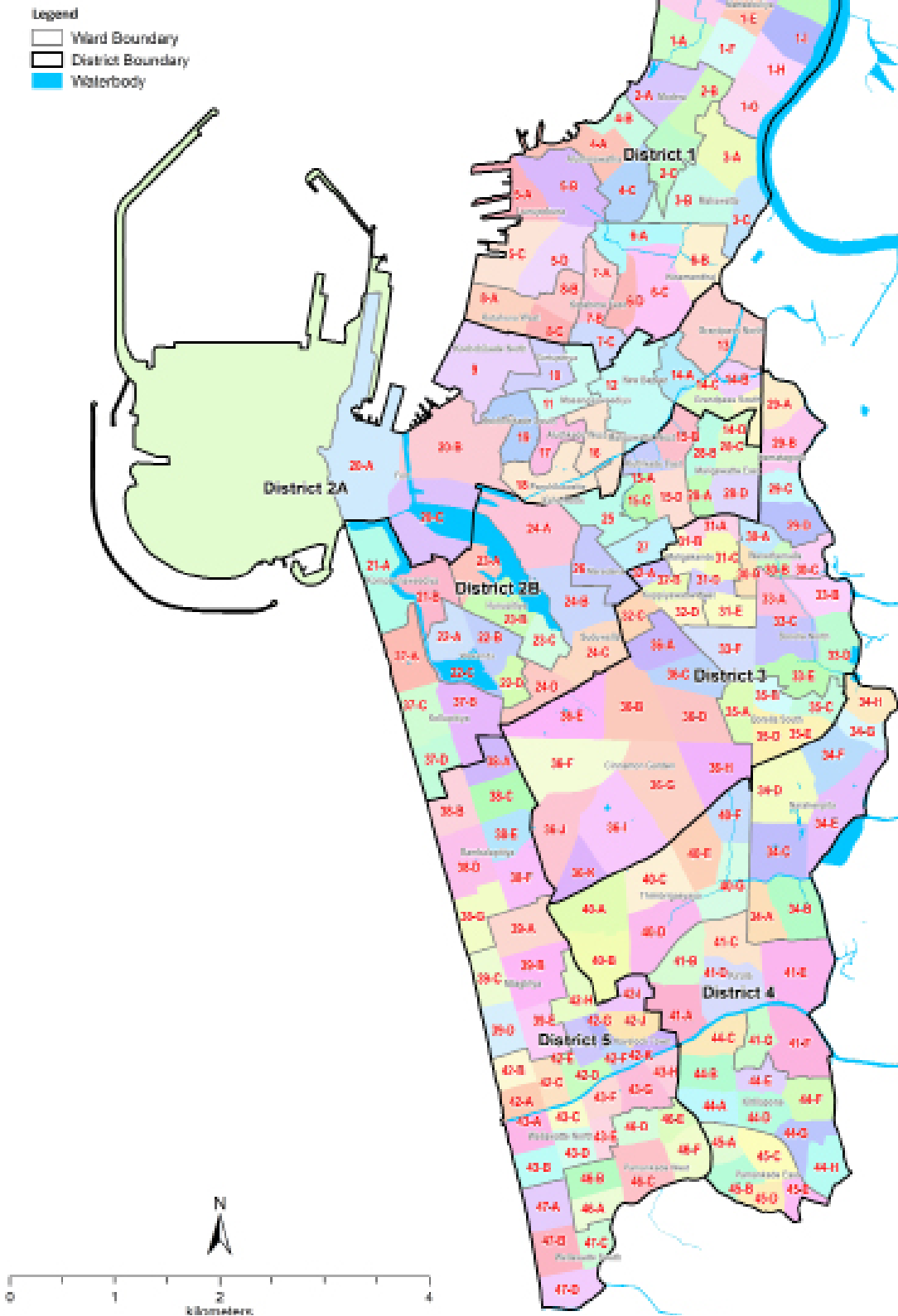
Map 2: Colombo City: Municipal Ward Map

**Colombo City: Municipal Ward Map**



Map 3: Colombo City: CMC Sub-ward Map

### Colombo City: Sub Ward Map





**DISTRIBUTION OF SETTLEMENTS BY CMC DISTRICTS: 2023**

Table 3.2: Distribution of Settlements by CMC Districts: 2023

Distribution of Settlements by CMC Districts									
	Municipal District	No. of Settlements	%	No. of Houses	%	No. of Families	%	Total Population	%
	District 1								
1	(Colombo North)	302	22.2	16,851	30.2	23,173	26.6	102,624	27.0
2	District 2A (Colombo Central)	449	33.0	14,271	25.5	23,144	26.6	102,821	27.1
3	District 2B (Colombo Central)	264	19.4	7,309	13.1	12,157	14.0	48,708	12.8
4	District 3 (Borella)	202	14.9	8,621	15.4	14,477	16.6	58,089	15.3
5	District 4 (Colombo East)	99	7.3	6,940	12.4	11,135	12.8	52,542	13.8
6	District 5 (Colombo West)	44	3.2	1,874	3.4	3,033	3.5	15,125	4.0
	<b>Total</b>	<b>1,360</b>	100	<b>55,866</b>	100	<b>87,119</b>	100	<b>379,909</b>	100

A total population of 379,909 lives in 1360 settlements across six municipal districts in the City of Colombo. These settlements have a total of 55,866 houses and 87,119 families living in them.

The CSS revealed that the highest number of settlements are located in District 2A (Colombo Central) and District 1 (Colombo North) with 33% and 22.2% of all settlements (respectively) located in these two Districts. District 2B (Colombo Central) has 19.4% of all settlements, while District 3 (Borella) has 14.9% of all settlements. The lowest number of settlements are found in District 5 (Colombo West) at 3.2% of all settlements, while District 4 (Colombo East) has 7.3% of all settlements.

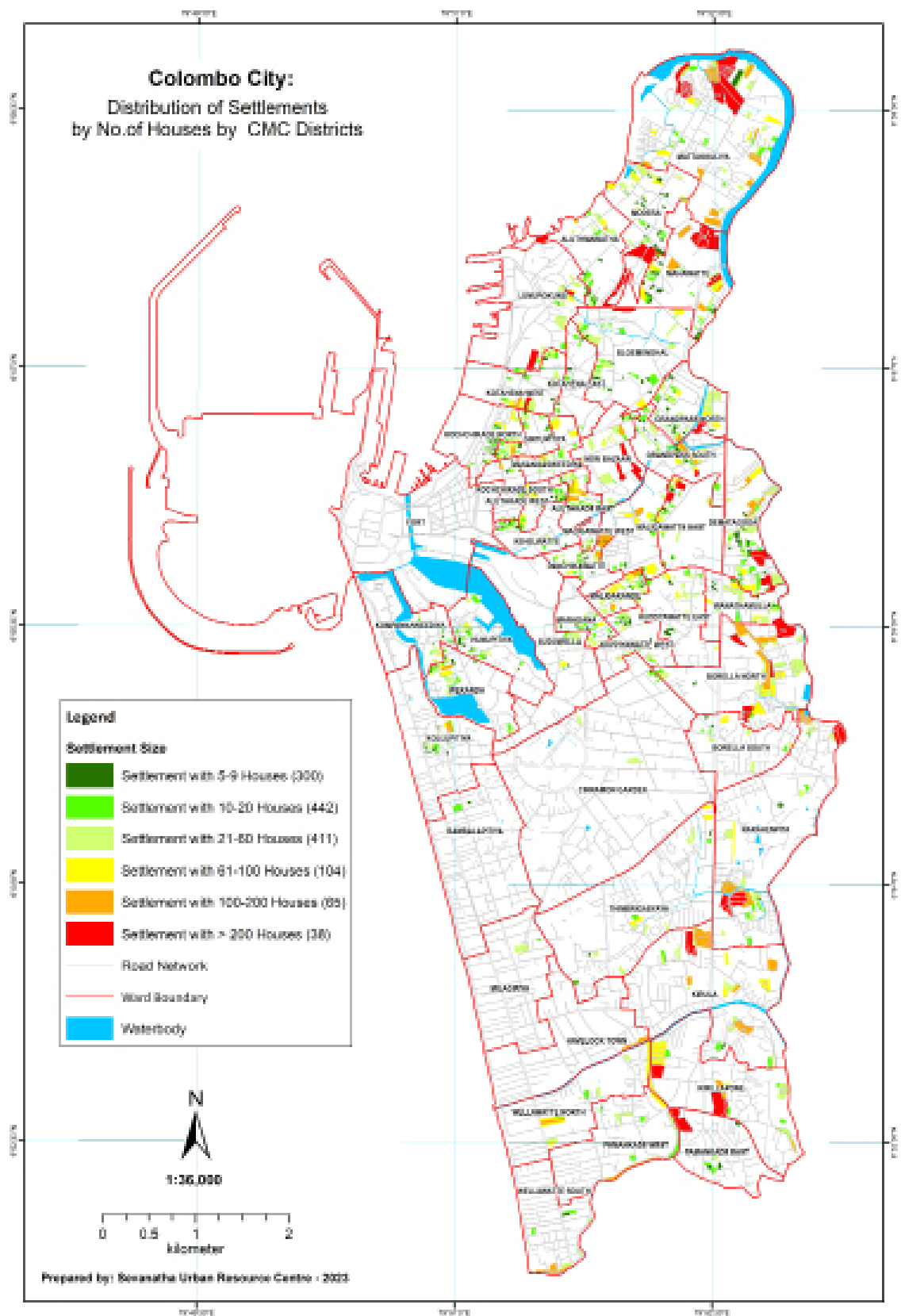
The survey also revealed that more than half (54%) of all settlement population is concentrated in District 1 (Colombo North) and District 2A (Colombo Central). Less than 5% of the total population lives in District 5 (Colombo West). Less than 50% of all population is located in Districts 2B (Colombo Central), District 3 (Borella) and District 4 (Colombo East).

**DISTRIBUTION OF SETTLEMENTS BY NO. OF HOUSES BY CMC DISTRICTS***Table 3.3: Distribution of Settlements by No. of Houses by CMC Districts*

	<b>Municipal District</b>	<b>No. of settl. with 5 - 9 houses</b>	<b>No. of settl. with 10 - 20 houses</b>	<b>No. of settl. with 21-60 houses</b>	<b>No. of settl. with 61-100 houses</b>	<b>No. of settl. with 101-200 houses</b>	<b>No. of settl. with &gt; 200 houses</b>	<b>Total No. of Settlements</b>
1	District 1 (Colombo North)	66	93	85	25	16	17	302
2	District 2A (Colombo Central)	122	162	122	24	11	8	449
3	District 2B (Colombo Central)	61	98	77	20	8	0	264
4	District 3 (Borella)	39	52	77	17	11	6	202
5	District 4 (Colombo East)	9	21	36	13	13	7	99
6	District 5 (Colombo West)	3	16	14	5	6	0	44
	<b>Total</b>	<b>300</b>	<b>442</b>	<b>411</b>	<b>104</b>	<b>65</b>	<b>38</b>	<b>1360</b>
	<b>%</b>	22.1	32.5	30.2	7.6	4.8	2.8	100

The CSS Survey of 2023 revealed that the number of settlements with more than 200 houses was about 2.8% of all settlements. More than half of all settlements were smaller settlements, with a minimum of 10 and a maximum of 60 houses. The number of settlements with 5-9 houses was 22.1% of all settlements. Less than 15% of all settlements had a range of 61-200 houses.

Map 4: Colombo City: Distribution of Settlements by No. of Houses by CMC Districts



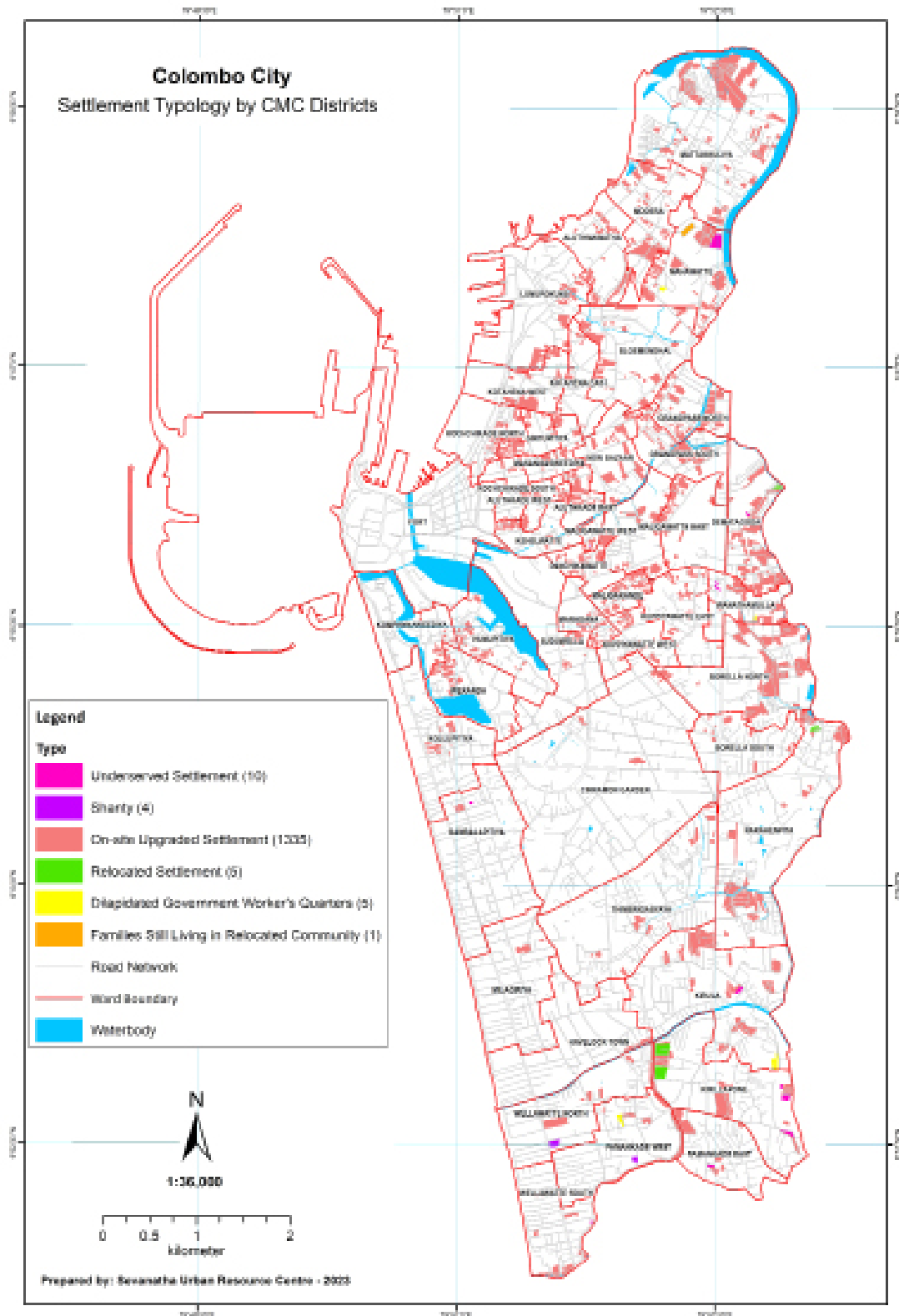
**SETTLEMENT TYPOLOGY BY CMC DISTRICTS**

Table 3.4: Distribution of Settlements by No. of Houses by CMC Districts

Municipal Districts	Types of Settlements										Total	% of the City Total		
	Under-served Settlements	% of the District Total	Shan-ties	% of the District's Total	On-site Up-graded Settlements	% of the District's Total	Relocat-ed Set-tlements	% of the District's Total	Dilapi-dated Govern-ment worker's Quar-ters	% of the District's Total			Fam-ilies still living in re-locat-ed com-muni-ties	% of the District's Total
1 District 1 (Colombo North)	1	0.33	0	0	299	99.34	0	0	1	0.33	1	0.33	302	22.21
2 District 2A (Colombo Central)	0	0	1	0	448	0	0	0	0	0	0	0	449	33.01
3 District 2B (Colombo Central)	0	0	0	0.00	264	94.29	0	0.00	0	0	0	0	264	19.41
4 District 3 (Borella)	2	0.99	0	0	198	97.54	1	0.49	1	0.49	0	0	202	14.85
5 District 4 (Colombo East)	5	4.76	0	0	88	83.81	4	3.81	2	1.90	0	0	99	7.28
6 District 5 (Colombo West)	2	5.13	3	7.69	38	97.44	0	0	1	2.56	0	0	44	3.24
<b>Total</b>	<b>10</b>	<b>0.74</b>	<b>4</b>	<b>0.29</b>	<b>1335</b>	<b>98.16</b>	<b>5</b>	<b>0.37</b>	<b>5</b>	<b>0.37</b>	<b>1</b>	<b>0.07</b>	<b>1360</b>	<b>100.00</b>

A majority of the settlements in the CSS for 2023 (98.16%) are on-site upgraded settlements. On-site upgrading involves upgrading an existing under-served settlement at the same site, instead of relocation. A total of 1.03% of all settlements are underserved settlements or shanties. Relocated settlements and dilapidated government workers' quarters consist of 0.37% of all the settlements. In one settlement (233 watte in Henamulla) families were continuing to reside in a relocated community.

Map 5: Colombo City: Settlement Typology by CMC Districts



# **CHAPTER 04:**

# **SETTLEMENT**

# **INDICATORS FOR**

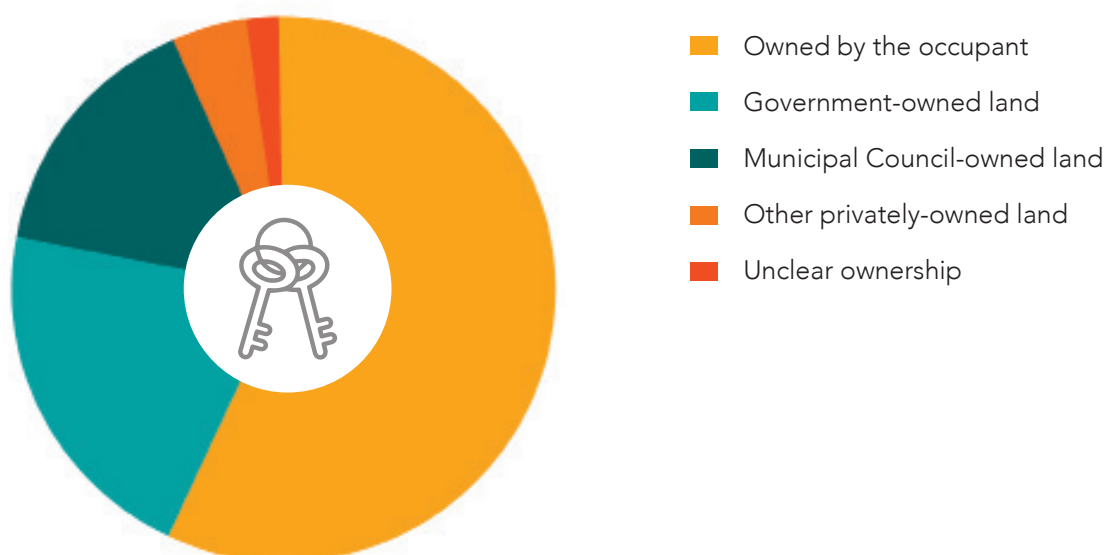
# **CSS 2023**

This chapter presents the key findings of the Colombo Settlement Survey (CSS) 2023. It provides data for each indicator, presented in simple frequency tables, with percentages calculated on the basis of the city total.

## 4.1. LAND OWNERSHIP AND TENURE TYPES

### 4.1.1. INDICATOR 1: LAND OWNERSHIP OF THE SETTLEMENT

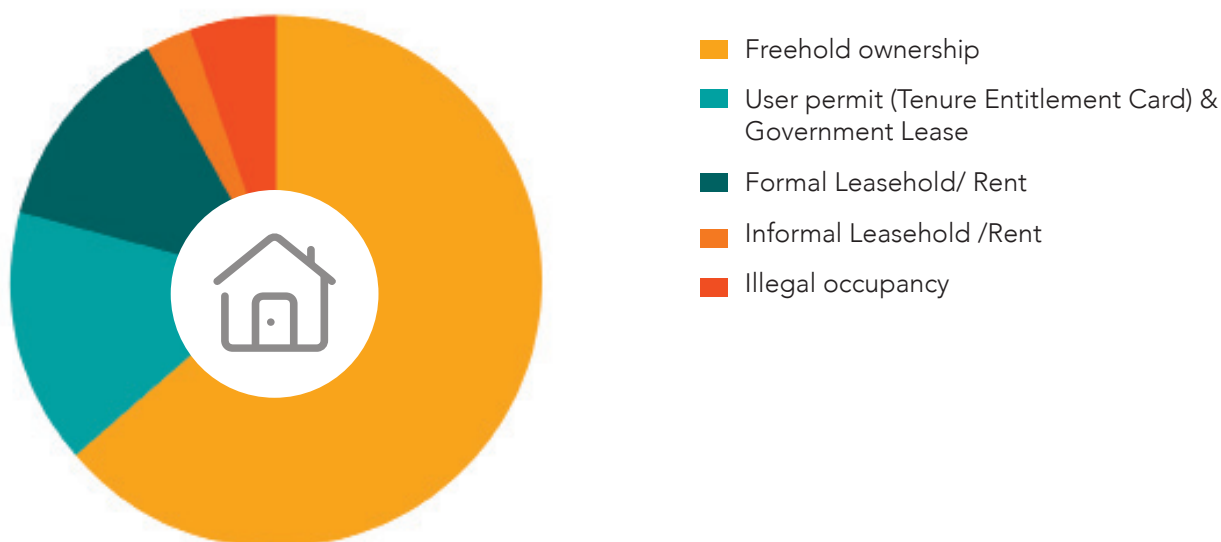
Land Ownership of the Settlement		
Category	No. of Settlements	%
Owned by the occupant	778	57.21
Government-owned land	284	20.88
Municipal Council-owned land	209	15.37
Other privately-owned land	61	4.49
Unclear ownership	28	2.06
<b>Total</b>	<b>1360</b>	<b>100</b>



The above categories are the most common land ownership types in the settlements in Colombo. According to the survey, 57.21% of lands on which settlements are located are owned by the occupants. The government owns 20.88% of lands while 15.37% of land is owned by the Municipal Council. A small number of settlements are located on privately owned land, while unclear land ownership characterises 2.06% of settlements in Colombo.

#### 4.1.2. INDICATOR 2: TYPES OF TENURE RIGHTS

Types of Tenure Rights		
Category	No. of Settlements	%
Freehold ownership	868	63.82
User permit (Tenure Entitlement Card) & Government Lease	212	15.59
Formal Leasehold/ Rent	174	12.79
Informal Leasehold /Rent	36	2.65
Illegal occupancy	70	5.15
<b>Total</b>	<b>1360</b>	<b>100</b>

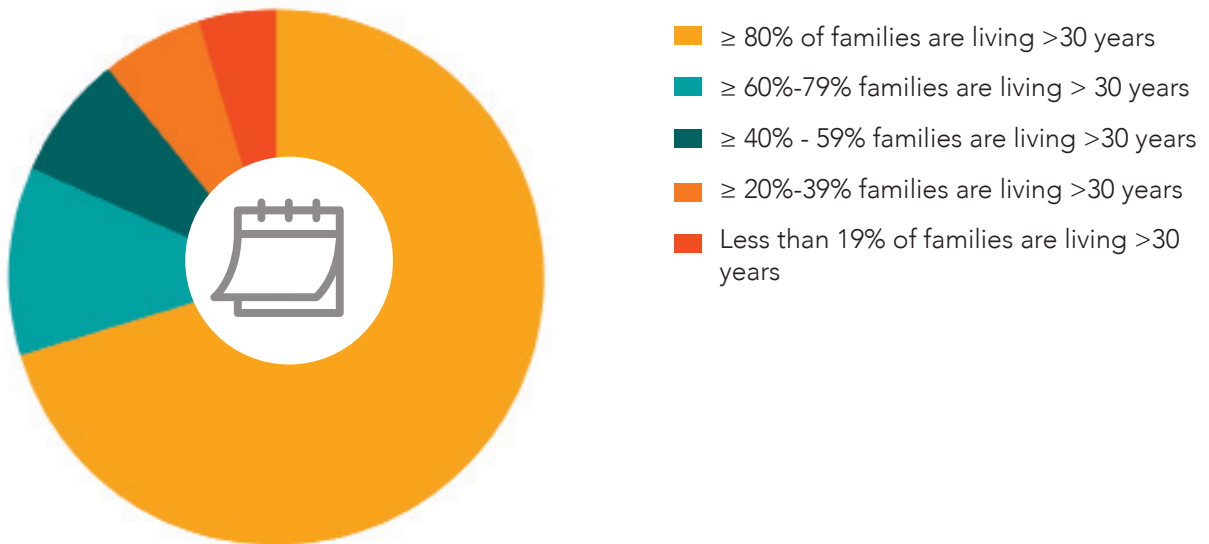


The survey revealed that occupants of 63.82% of settlements have freehold ownership. 15.59% of the population have a user permit or a tenure entitlement card and government lease, and this provides a sense of security to the occupants with regard to their location. 15.44% of occupants are formal and informal tenant or leasehold occupants. 5.15% of occupants are illegal occupants.



**4.1.3. INDICATOR 3: DURATION OF OCCUPANT RESIDING IN THE SETTLEMENT**

Duration of Occupant Residing in the Settlement		
Category	No. of Settlements	%
≥ 80% of families are living >30 years	957	70.37
≥ 60%-79% families are living > 30 years	154	11.32
≥ 40% - 59% families are living >30 years	105	7.72
≥ 20%-39% families are living >30 years	80	5.88
Less than 19% of families are living >30 years	64	4.71
<b>Total</b>	<b>1360</b>	<b>100</b>

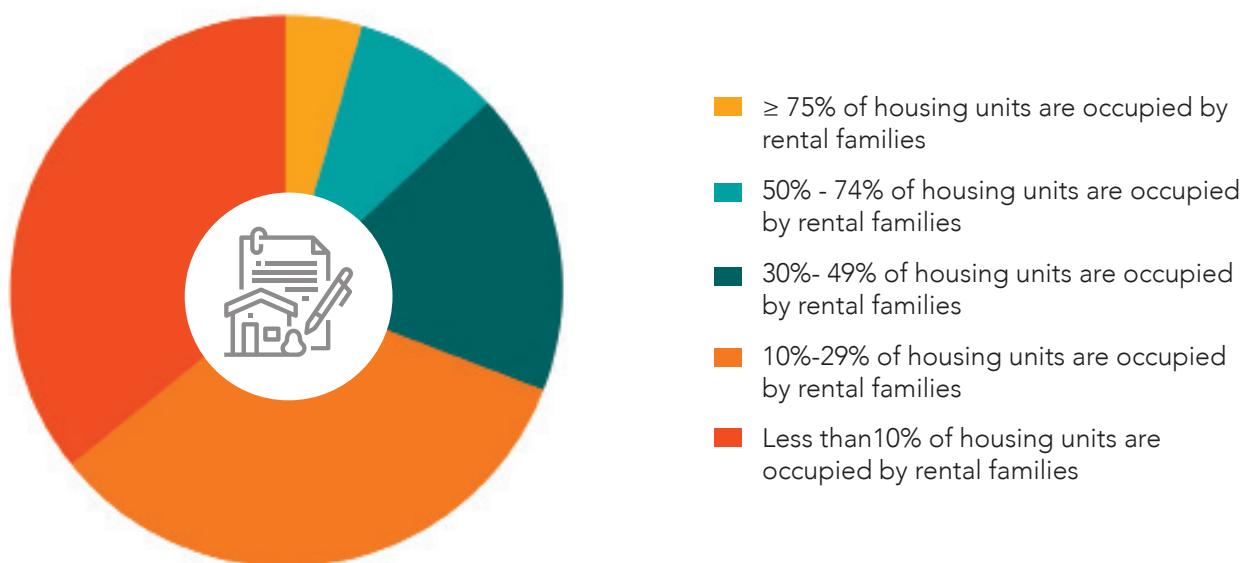


In 70.37% of settlements 80% or more families have been living for more than 30 years. The next range of 60%-79% of families living more than 30 years in the same settlement account for 11.32%, and 40%-59% of families living more than 30 years in the same settlement recorded as 7.72%. In 4.71% of settlements have fewer than 19% of families residing for over 30 years.

**Most families have been living in the same settlements for more than 30 years.**

**4.1.4. INDICATOR 4: RENTAL HOUSING SITUATION IN THE SETTLEMENT**

Rental Housing Situation in the Settlement		
Category	No. of Settlements	%
≥ 75% of housing units are occupied by rental families	64	4.71
50% - 74% of housing units are occupied by rental families	114	8.38
30%- 49% of housing units are occupied by rental families	242	17.79
10%-29% of housing units are occupied by rental families	453	33.31
Less than10% of housing units are occupied by rental families	487	35.81
<b>Total</b>	<b>1360</b>	<b>100</b>



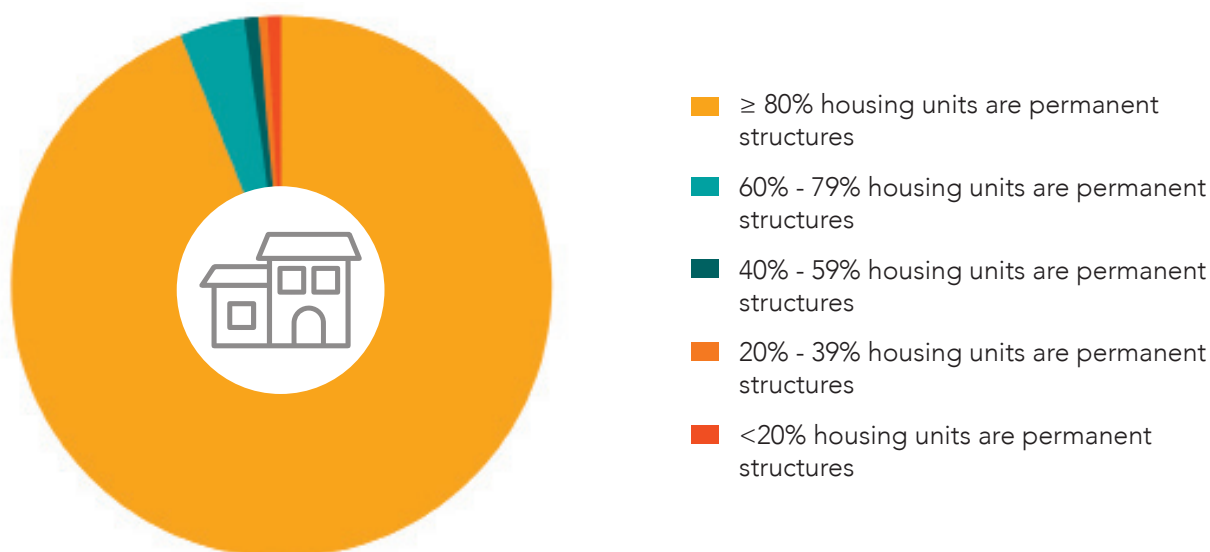
The survey revealed that 4.71% of settlements have over 75% of housing units occupied by rental families. 8.38% of settlements represent 50%- 74% of housing units occupied by rental families. The above table ( table no) shows that 35.81% of settlements have less than 10% of rental housing families.

**This indicates that about 13% of all the settlements consist of over 50% of housing unit occupied by rental families.**

## 4.2. PHYSICAL CONDITION OF HOUSES

### 4.2.1. INDICATOR 5: CONDITIONS OF HOUSES

Conditions of Houses		
Category	No. of Settlements	%
≥ 80% housing units are permanent structures	1277	93.90
60% - 79% housing units are permanent structures	55	4.04
40% - 59% housing units are permanent structures	12	0.88
20% - 39% housing units are permanent structures	7	0.51
<20% housing units are permanent structures	9	0.66
<b>Total</b>	<b>1360</b>	<b>100</b>

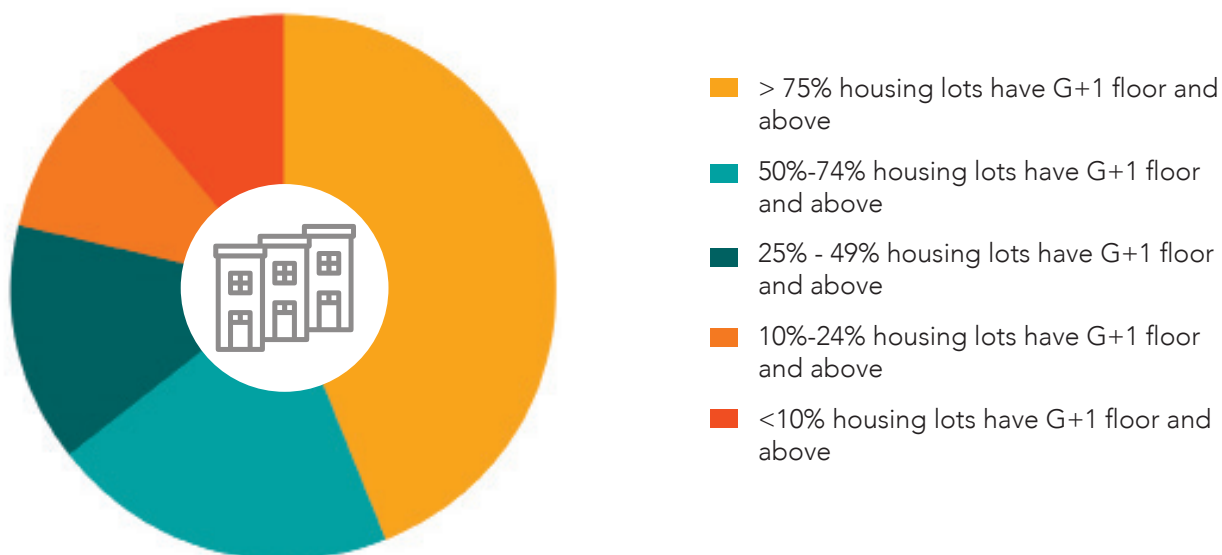


In a majority of settlements (93.9%), 80% or more of the housing units are permanent structures. 60%-79% of housing units are permanent structures in 4.04% of settlements. 40%-59% of housing units are permanent structures in 0.88% of settlements. 20%-39% of housing units are permanent structures in 0.51% of settlements. Less than 20% of housing units are permanent structures in 0.66% of settlements.

**This situation demonstrates that 97% of all the settlements have more than 60% housing units with permanent conditions which is a satisfactory level of development of physical structures in the settlements.**

#### 4.2.2. INDICATOR 6: LEVEL OF HOUSING DEVELOPMENT

Level of Housing Development		
Category	No. of Settlements	%
> 75% housing lots have G+1 floor and above	600	44.1
50%-74% housing lots have G+1 floor and above	277	20.4
25% - 49% housing lots have G+1 floor and above	195	14.3
10%-24% housing lots have G+1 floor and above	140	10.3
<10% housing lots have G+1 floor and above	148	10.9
<b>Total</b>	<b>1360</b>	<b>100</b>

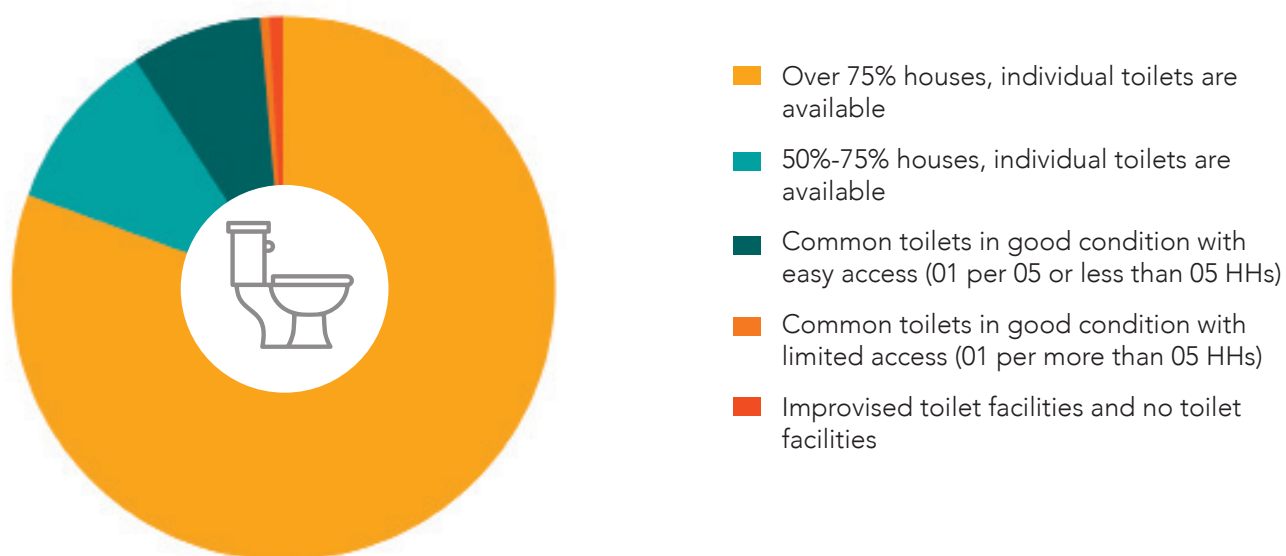


Almost half of all settlements (44.1%) have more than 75% housing lots with G+1 floor and above. In 20.4% of all settlements 50%-74% of housing lots have G+1 floor and above. In 14.3% of all settlements 25%-49% of housing lots have G+1 floor and above. In 10.3% of all settlements 10%-24% of housing lots have G+1 floor and above. 10.9% of settlements have less than 10% of housing lots that are G+1 and above.

**In 64.5% of settlements, 50% of housing units have G+1 floor and above. Increased housing development indicates greater sense of security about their place of living and shows investment to improve the structural condition and expand the floor area of housing units.**

### 4.2.3. INDICATOR 7: AVAILABILITY OF TOILET FACILITIES FOR HOUSING

Availability of Toilet Facilities for Housing		
Category	No. of Settlements	%
Over 75% houses, individual toilets are available	1096	80.6
50%-75% houses, individual toilets are available	141	10.4
Common toilets in good condition with easy access (01 per 05 or less than 05 HHs)	105	7.7
Common toilets in good condition with limited access (01 per more than 05 HHs)	8	0.6
Improvised toilet facilities and no toilet facilities	10	0.7
<b>Total</b>	<b>1360</b>	<b>100</b>



In a majority of the settlements (80.6%) over 75% of houses have individual toilets. 10.4% of all settlements have 50%-75% of houses with individual toilets while 7.7% of all settlements have one easily accessible common toilet for five or less than five households. 0.6% of all settlements have one common toilet in condition but with limited access for five or more households. A very small number of settlements (0.7%) have improvised or no toilet facilities.

**While toilet facilities are satisfactory, it is important to pay serious attention to improve the toilet facilities of those settlement communities who use common toilets and improvised toilets as they represent 9.0% of all the settlements in the city of Colombo.**

### 4.3. LEVEL OF BASIC SERVICES

#### 4.3.1. INDICATOR 8: ACCESS TO POTABLE WATER SUPPLY

Access to Potable Water Supply		
Category	No. of Settlements	%
Individual connection for private use	1331	97.9
Common stand post with easy access (1 or 10 or less HHs)	24	1.8
Common stand post with limited access (1 per more than 10 HHs)	4	0.3
Provided by outside sources	0	0.0
No any water supply system is available	1	0.1
<b>Total</b>	<b>1360</b>	<b>100</b>



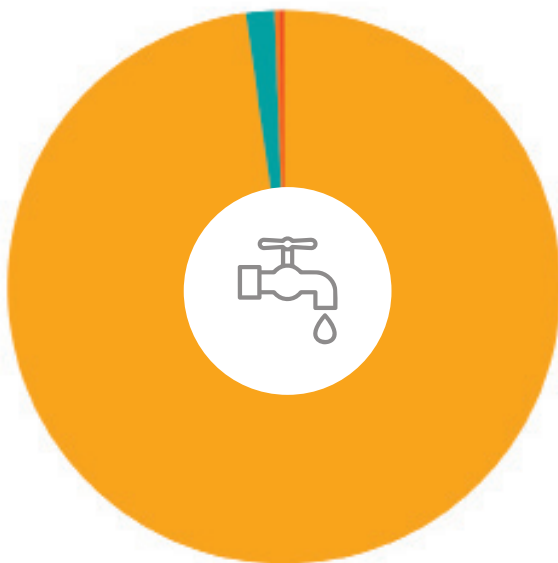
- Individual connection for private use
- Common stand post with easy access (1 or 10 or less HHs)
- Common stand post with limited access (1 per more than 10 HHs)
- Provided by outside sources
- No any water supply system is available

Almost all settlements (97.9%) have individual connections for water. Common stand posts are used by 2.1% of settlements. No settlement receives water from outside sources and there is only one settlement where there is no water supply system available.

**The above situation indicates that the settlement communities in Colombo are better served with pipe-borne water and high coverage of individually metered water connections.**

**4.3.2. INDICATOR 9: AVAILABILITY OF POTABLE WATER**

Availability of Potable water		
Category	No. of Settlements	%
Receive water for 16 - 24 hours a day with adequate pressure	1332	97.9
Receive water for 16 - 24 hours a day with inadequate pressure	22	1.6
Receive water for less than 16 hours a day with adequate pressure	2	0.1
Receive water for less than 16 hours a day with inadequate pressure	3	0.2
Not available within the settlements	1	0.1
<b>Total</b>	<b>1360</b>	<b>100</b>

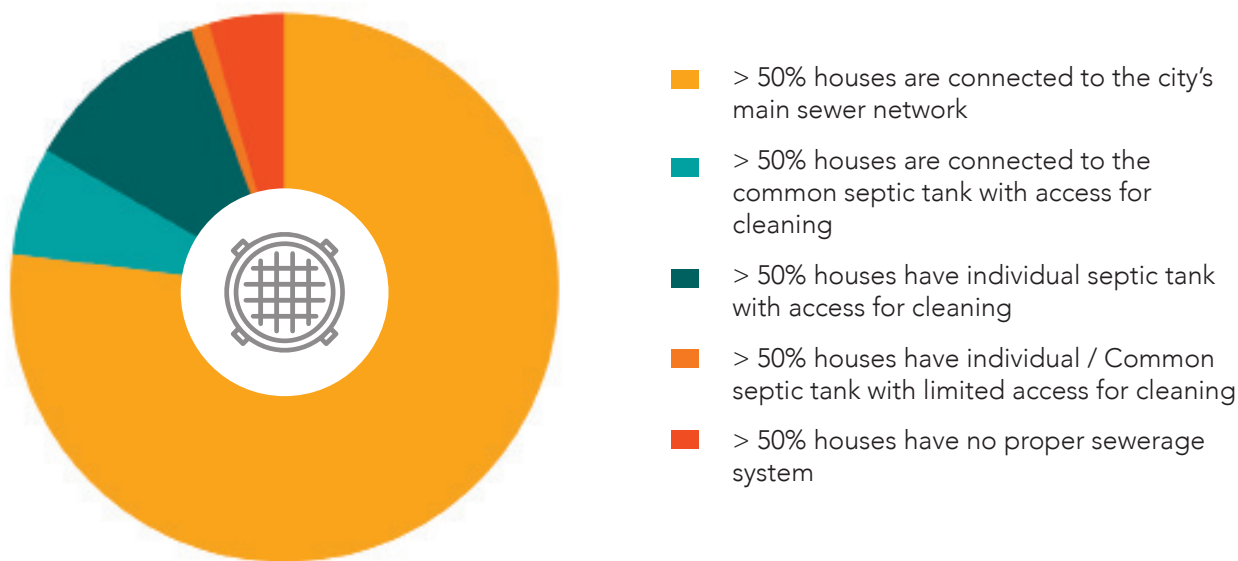


- Receive water for 16 - 24 hours a day with adequate pressure
- Receive water for 16 - 24 hours a day with inadequate pressure
- Receive water for less than 16 hours a day with adequate pressure
- Receive water for less than 16 hours a day with inadequate pressure
- Not available within the settlements

The efficiency and reliability of water supply depend on the time duration of water supply and having adequate pressure. A majority of settlements (97.9%) receive water for 16-24 hours a day, with adequate pressure. 1.6% of all settlements receive water for 16-24 hours a day, with inadequate pressure. 0.1% of settlements receive water for less than 16 hours a day with adequate pressure. 0.2% of settlements receive water for 16 hours a day with inadequate pressure. Only one settlement did not have any water within the settlement.

### 4.3.3. INDICATOR 10: ACCESS TO SEWERAGE SYSTEM

Access to Sewerage System		
Category	No. of Settlements	%
> 50% houses are connected to the city's main sewer network	1048	77.06
> 50% houses are connected to the common septic tank with access for cleaning	89	6.54
> 50% houses have individual septic tank with access for cleaning	148	10.88
> 50% houses have individual / Common septic tank with limited access for cleaning	16	1.18
> 50% houses have no proper sewerage system	59	4.34
<b>Total</b>	<b>1360</b>	<b>100</b>



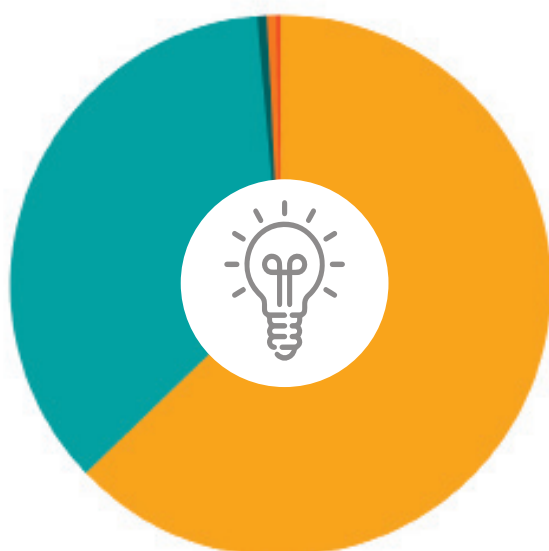
More than 50% of houses in 77.06% of all settlements are connected to the city's main sewer network. In 6.54% of settlements, a majority of houses are connected to the common septic tank, with access for cleaning. In 10.88% of settlements, more than 50% of houses have individual septic tanks with access for cleaning. More than 50% of houses have individual/common septic tank with limited access for cleaning. In 4.34% of all settlements, more than 50% of houses have no proper sewerage system.

**While a majority of settlements are connected to the main sewer networks, attention should be paid to the 4.34% of settlements as inadequate sewage disposal poses a danger to public health.**



#### 4.3.4. INDICATOR 11: ELECTRICITY FOR PRIVATE USE

Electricity for Private Use		
Category	No. of Settlements	%
Electricity connections for >75 houses and with sufficient streetlights	855	62.87
Electricity connections for >75% houses and without sufficient streetlights	487	35.81
Electricity connections for <75% houses with or without streetlights	8	0.59
Electricity connections are not available, but a main line is running near the settlements	9	0.66
Electricity connections are not available, and there is no main line	1	0.07
<b>Total</b>	<b>1360</b>	<b>100</b>



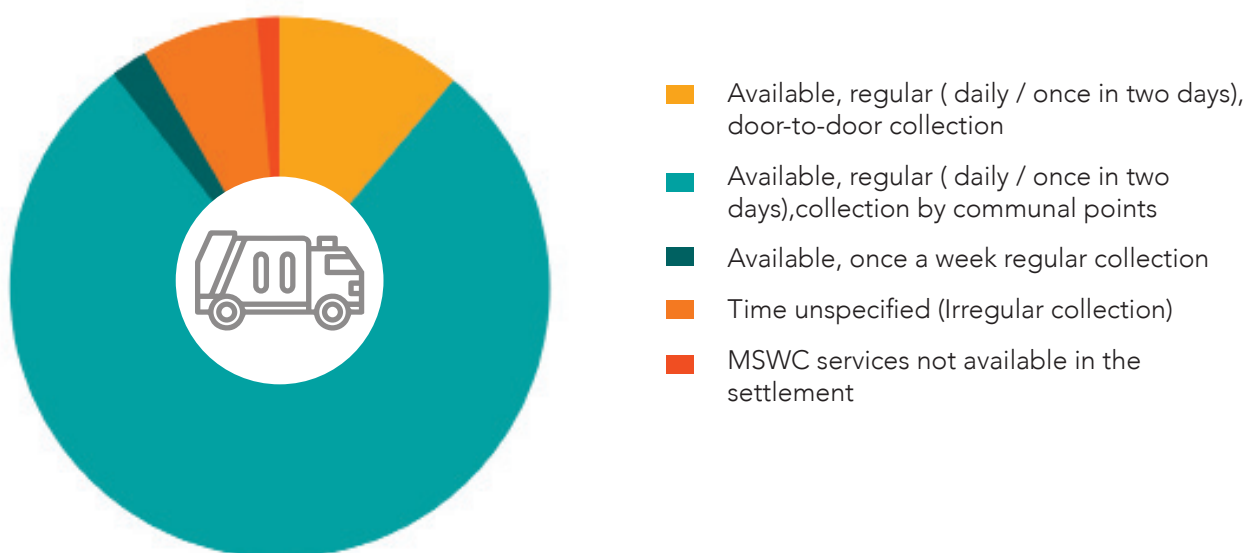
- Electricity connections for >75 houses and with sufficient streetlights
- Electricity connections for >75% houses and without sufficient streetlights
- Electricity connections for <75% houses with or without streetlights
- Electricity connections are not available, but a main line is running near the settlements
- Electricity connections are not available, and there is no main line

More than 75% of houses have an electricity connection with sufficient street lights in 62.87% of all settlements. In 35.81% of settlements, more than 75% of houses have an electricity connection, with insufficient street lights. In 0.59% of all settlements, less than 75% of houses have an electricity connection, and are with or without streetlights. In 0.66% of settlements, electricity connections are not available, but the main line runs near the settlement. One settlement does not have electricity connections and the main line has not come to the area.

**It can be concluded that access to individually metered electricity is at a satisfactory level in Colombo.**

#### 4.3.5. INDICATOR 12: MUNICIPAL SOLID WASTE COLLECTION (MSWC) SERVICE

Municipal Solid Waste Collection (MSWC) Service		
Category	No. of Settlements	%
Available, regular ( daily / once in two days), door-to-door collection	154	11.3
Available, regular ( daily / once in two days),collection by communal points	1064	78.2
Available, once a week regular collection	31	2.3
Time unspecified (Irregular collection)	94	6.9
MSWC services not available in the settlement	17	1.3
<b>Total</b>	<b>1360</b>	<b>100</b>

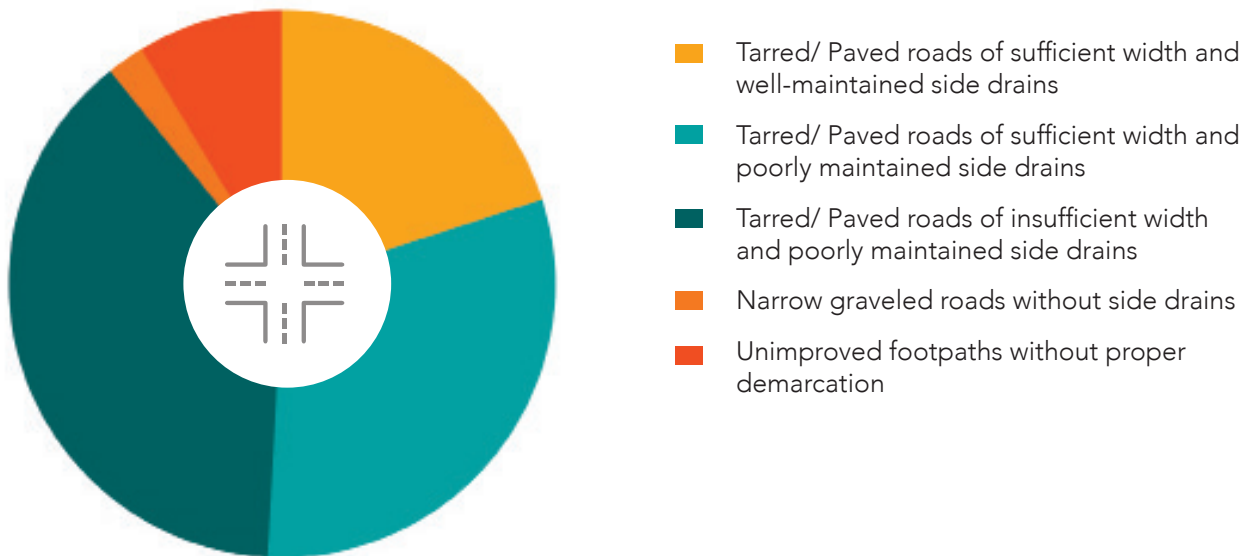


In 11.3% of settlements, municipal solid waste collection service is available regularly (daily or once in two days) with door-to-door collection. A majority of settlements (78.2%) have regular municipal solid waste collection services with collection done from communal points. In 2.3% of settlements, municipal solid waste collection services are available once a week while 6.9% of settlements experience irregular municipal solid waste collection services. In 1.3% of settlements, municipal solid waste collection services are not available.

**A majority of settlements have regular municipal solid waste collection, however, 6.9% of settlements have irregular collection.**

**4.3.6. INDICATOR 13: CONDITION OF THE INNER ACCESS ROADS**

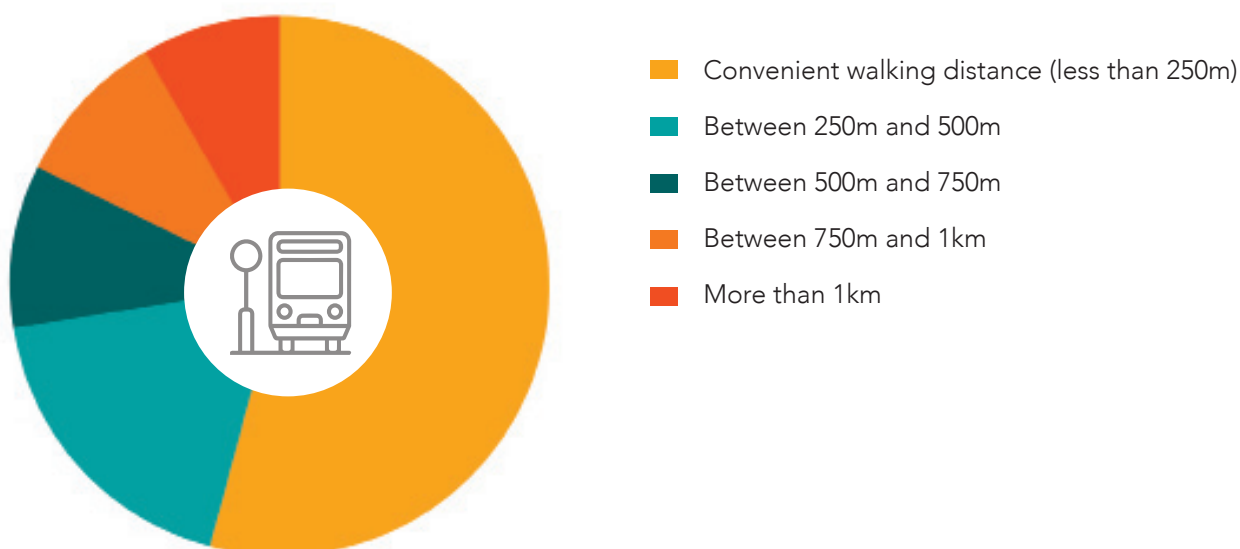
Condition of the Inner Access Roads		
Category	No. of Settlements	%
Tarred/ Paved roads of sufficient width and well-maintained side drains	274	20.1
Tarred/ Paved roads of sufficient width and poorly maintained side drains	421	31.0
Tarred/ Paved roads of insufficient width and poorly maintained side drains	518	38.1
Narrow graveled roads without side drains	30	2.2
Unimproved footpaths without proper demarcation	117	8.6
<b>Total</b>	<b>1360</b>	<b>100</b>



20.1% of settlements have tarred/paved roads of sufficient width and well-maintained side drains. 31% of settlements have tarred/paved roads of sufficient width and poorly maintained side drains. 38.1% of all settlements have tarred/paved roads with insufficient width and poorly maintained side drains. 2.2% of settlements have narrow, graveled roads without side drains. 8.6% of settlements have unimproved footpaths without proper demarcation.

#### 4.3.7. INDICATOR 14: PROXIMITY TO BUS STOP FROM THE SETTLEMENT

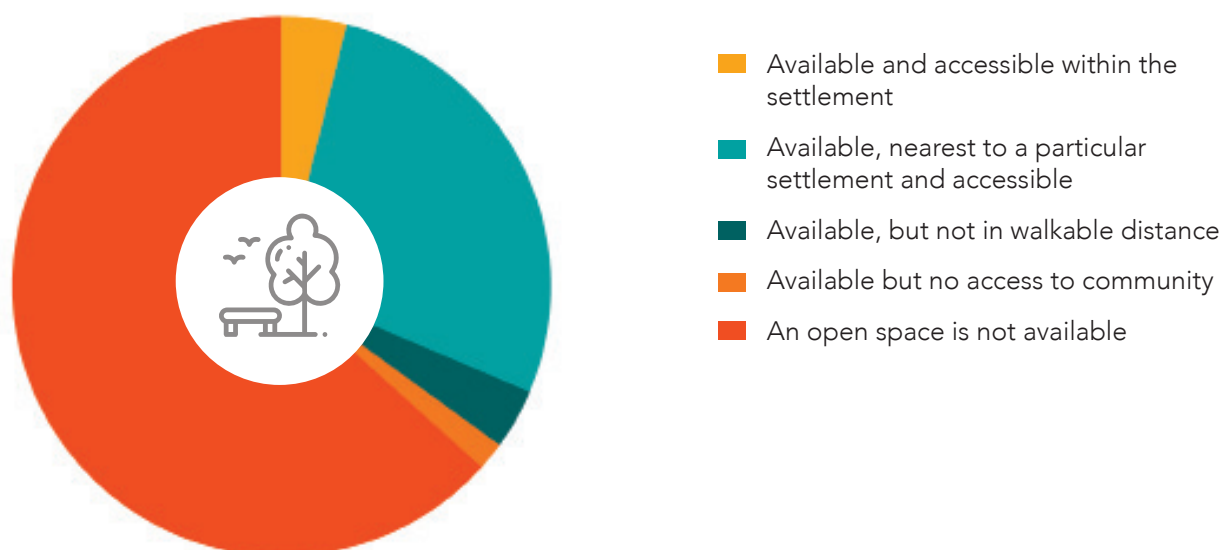
Proximity to Bus stop from the settlements		
Category	No. of Settlements	%
Convenient walking distance (less than 250m)	738	54.3
Between 250m and 500m	248	18.2
Between 500m and 750m	135	9.9
Between 750m and 1km	126	9.3
More than 1km	113	8.3
<b>Total</b>	<b>1360</b>	<b>100</b>



For more than 54.3% of settlements, the bus stop is located at a convenient walking distance from the settlement (less than 200m away). The bus stop is located between 250m to 500m away for 18.2% of settlements. 9.9% of settlements have a bus stop between 500m and 750m away. 9.3% of settlements have a bus stop between 750m and 1km away. For 8.3% of settlements, the bus stop is located more than 1km away.

#### 4.3.8. INDICATOR 15: ACCESS TO OPEN SPACE AND GREEN SPACE

Access to Open Space and Green Space		
Category	No. of Settlements	%
Available and accessible within the settlement	55	4.0
Available, nearest to a particular settlement and accessible	373	27.4
Available, but not in walkable distance	51	3.8
Available but no access to community	23	1.7
An open space is not available	858	63.1
<b>Total</b>	<b>1360</b>	<b>100</b>

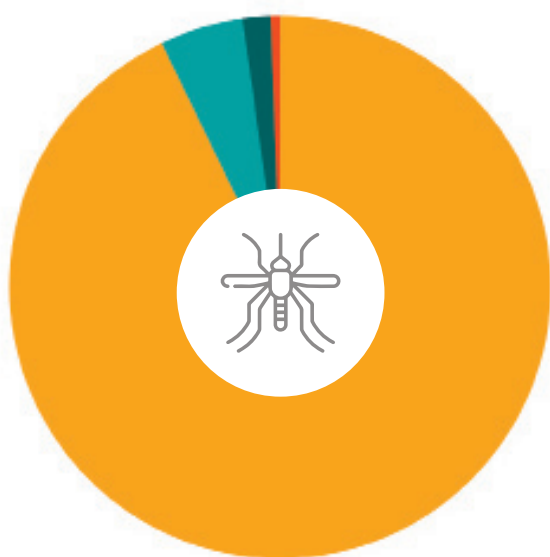


Most of the settlements (63.1%) do not have access to an open space. 27.4% of settlements have access to an open and/or green space located near the settlement. Only 4% of all settlements have access to an open or green space within the settlement. For 3.8% of the settlements, green and open spaces are available, but not in walkable distance. 1.7% of settlements have open/green spaces that are not accessible to the settlements.

**A majority of settlements do not have access to open/green space.**

#### 4.3.9. INDICATOR 16: RISK OF FACING DENGUE FEVER BY THE COMMUNITY

Risk of facing Dengue fever by the community		
Category	No. of Settlements	%
< 10% of the HHs in the settlement affected by the dengue fever during the past 6 months	1265	93.0
10% -25% of the HHs in the settlement affected by the dengue fever during the past 6 months	66	4.9
26% -50% of the HHs in the settlement affected by the dengue fever during the past 6 months	22	1.6
51% -75% of the HHs in the settlement affected by the dengue fever during the past 6 months	3	0.2
>75% of the HHs in the settlement affected by the dengue fever during the past 6 months	4	0.3
<b>Total</b>	<b>1360</b>	<b>100</b>



- < 10% of the HHs in the settlement affected by the dengue fever during the past 6 months
- 10% -25% of the HHs in the settlement affected by the dengue fever during the past 6 months
- 26% -50% of the HHs in the settlement affected by the dengue fever during the past 6 months
- 51% -75% of the HHs in the settlement affected by the dengue fever during the past 6 months
- >75% of the HHs in the settlement affected by the dengue fever during the past 6 months

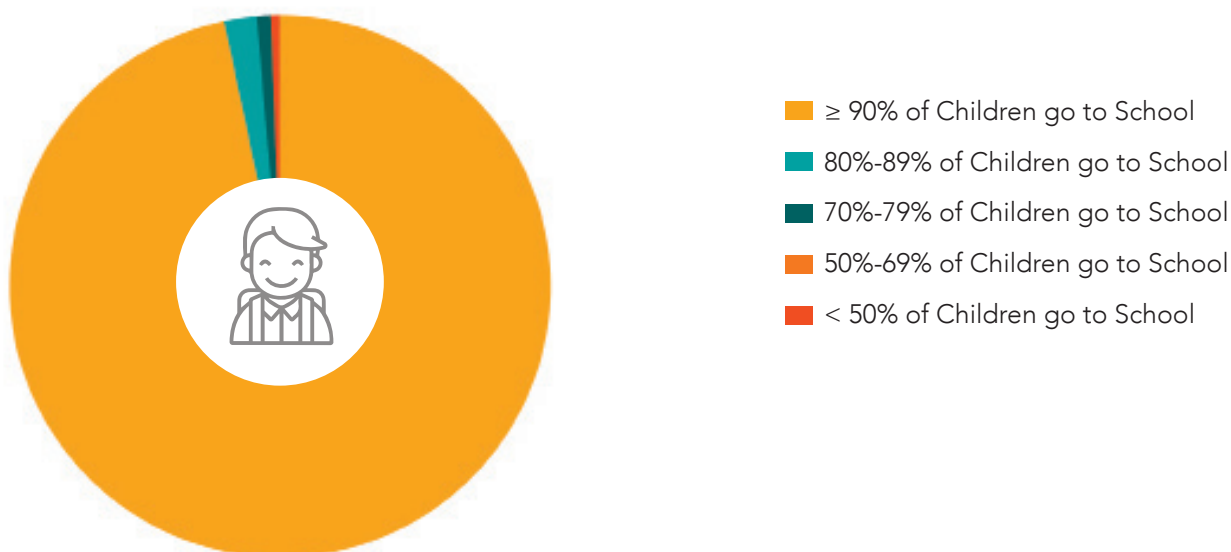
Less than 10% of households have been affected by dengue in the past 6 months in a majority of households (93%). 10-25% of households in 4.9% of all settlements have been affected by dengue fever in the past 6 months. 26%-50% of households in the settlement have been affected by dengue fever in 1.6% of households. In 0.2% of settlements, 51%-75% of households have been affected by dengue in the past 6 months.

**The data reveals that no majority of HHs are affected by dengue fever during the past six months. This may be attributed to the efforts taken by the Public Health Department of the CMC as well as the community’s awareness of this issue.**

#### 4.4. STATUS OF SELECTED SOCIO-ECONOMIC ASPECTS

##### 4.4.1. INDICATOR 17: SCHOOL ATTENDANCE OF SCHOOL – GOING AGE CHILDREN

School Attendance of School- Going age Children		
Category	No. of Settlements	%
≥ 90% of Children go to School	1317	96.8
80%-89% of Children go to School	28	2.1
70%-79% of Children go to School	9	0.7
50%-69% of Children go to School	1	0.1
< 50% of Children go to School	5	0.4
<b>Total</b>	<b>1360</b>	<b>100</b>

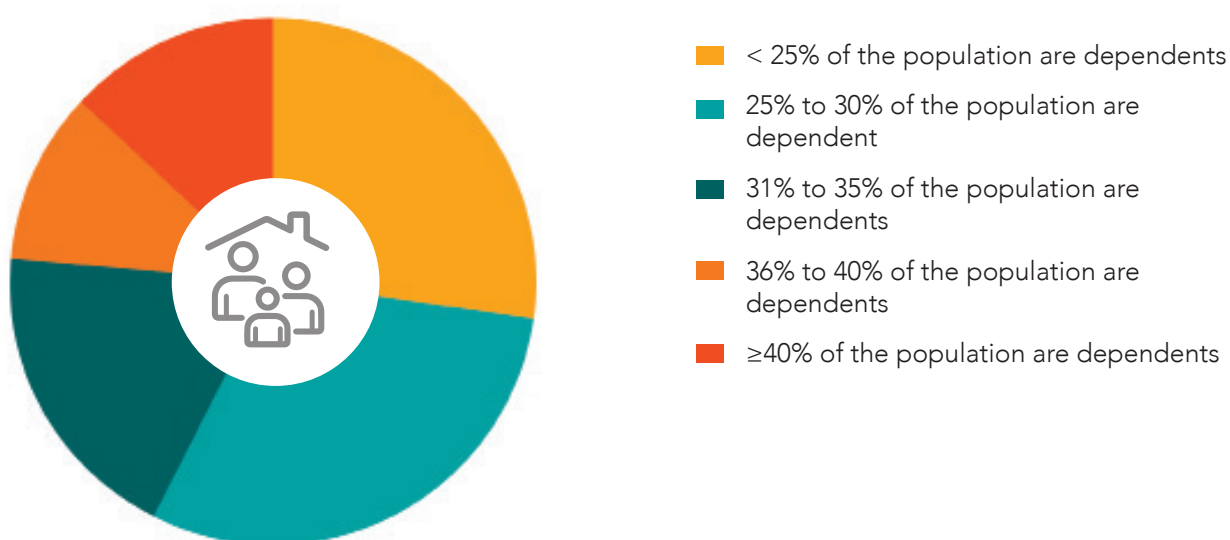


In 96.8% of all settlements, 90% or more children go to school. In 2.1% of settlements, 80%-89% of children go to school. In 0.7% of settlements, 70%-79% of children go to school. In one settlement 50%-69% of children go to school. In 0.4% of settlements, less than 50% of children go to school.

**Attention should be paid to communities with low levels of school attendance to achieve 100% school attendance in low-income communities.**

#### 4.4.2. INDICATOR 18: DEPENDENCY RATIO OF THE FAMILIES

Dependency Rate of the Families		
Category	No. of Settlements	%
< 25% of the population are dependents	373	27.4
25% to 30% of the population are dependent	412	30.3
31% to 35% of the population are dependents	257	18.9
36% to 40% of the population are dependents	141	10.4
≥40% of the population are dependents	177	13.0
<b>Total</b>	<b>1360</b>	<b>100</b>



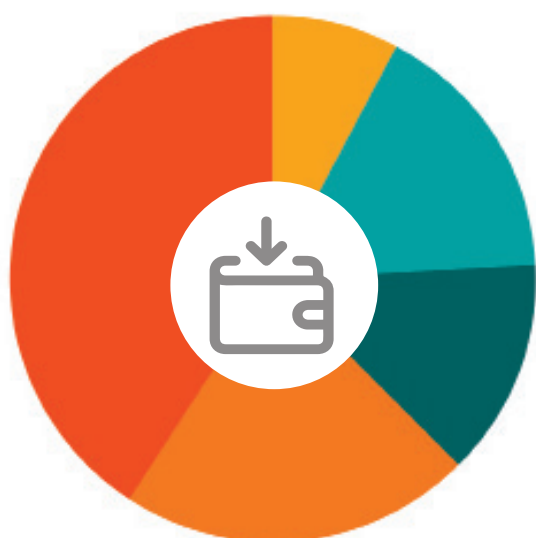
A household with more dependents can affect the economic stability of the unit. In 27.4% of settlements, less than 25% of the population are dependents. In 30.3% of the settlements, 25% to 30% of the population are dependents. 31% to 35% of the settlement population are dependents in 18.9% of the settlements. In 10.4% of the settlements, 36% to 40% of the population are dependents. 40% or more of the population are dependents in 13% of all settlements.

**This reveals that most settlements have a high number of dependents.**



#### 4.4.3. INDICATOR 19: INCOME LEVEL OF HOUSEHOLDS

Income - Level of the Households		
Category	No. of Settlements	%
≥ 80% HHs earn more than 70,000 LKR of monthly income	109	8.0
60% to 79% HHs earn more than 70,000 LKR of monthly income	223	16.4
40% to 59% HHs earn more than 70,000 LKR of monthly income	180	13.2
20% to 39% HHs earn more than 70,000 LKR of monthly income	294	21.6
<20% HHs earn more than 70,000 LKR of monthly income	554	40.7
<b>Total</b>	<b>1360</b>	<b>100</b>



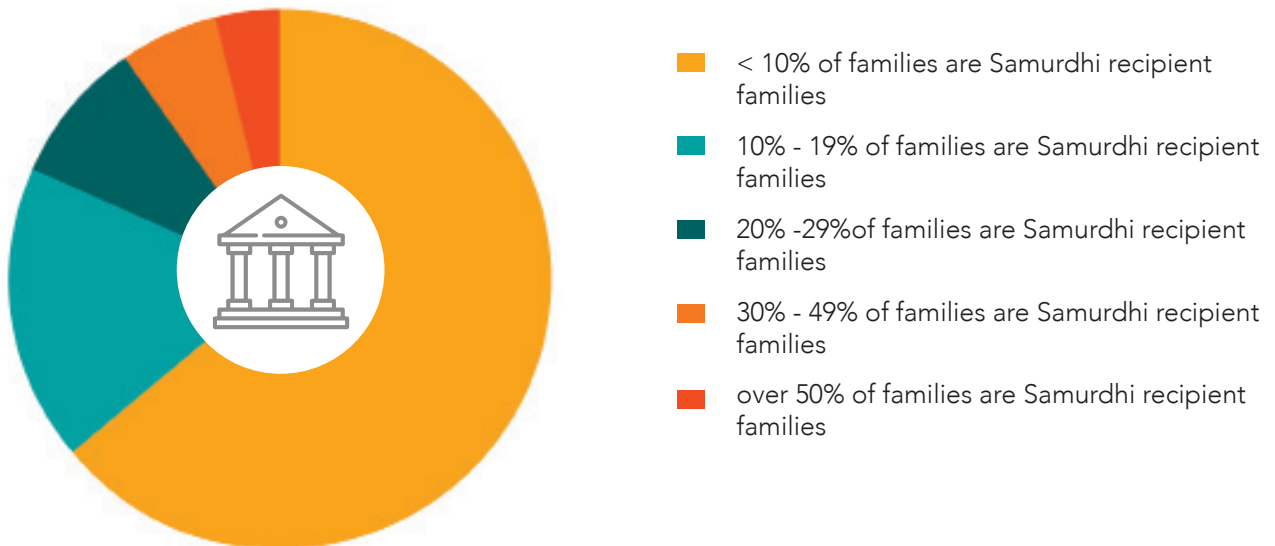
- ≥ 80% HHs earn more than 70,000 LKR of monthly income
- 60% to 79% HHs earn more than 70,000 LKR of monthly income
- 40% to 59% HHs earn more than 70,000 LKR of monthly income
- 20% to 39% HHs earn more than 70,000 LKR of monthly income
- <20% HHs earn more than 70,000 LKR of monthly income

In order to understand income levels, this indicator assumes LKR 70,000 to be the minimum income that a family of four can manage their expenses with (See Annex 1). Less than 20% of households earn more than LKR 70,000 monthly income in 40.7% of all settlements. 20%-39% of households earn more than LKR 70,000 of monthly income in 21.6% of settlements. 40%-59% of households earn more than LKR 70,000 monthly income in 13.2% of settlements. 60%-79% of households in 16.4% of all settlements earn more than LKR 70,000 monthly income.

**A majority of settlements do not have households that are earning more than LKR 70,000.**

**4.4.4. INDICATOR 20: RECIPIENT FAMILIES OF GOVERNMENT SUBSIDIES INCLUDING SAMURDHI & OTHER BENEFITS**

Recipient Families of Government Subsidies including Samurdhi and other Benefits		
Category	No. of Settlements	%
< 10% of families are Samurdhi recipient families	872	64.1
10% - 19% of families are Samurdhi recipient families	241	17.7
20% -29%of families are Samurdhi recipient families	117	8.6
30% - 49% of families are Samurdhi recipient families	78	5.7
over 50% of families are Samurdhi recipient families	52	3.8
<b>Total</b>	<b>1360</b>	<b>100</b>

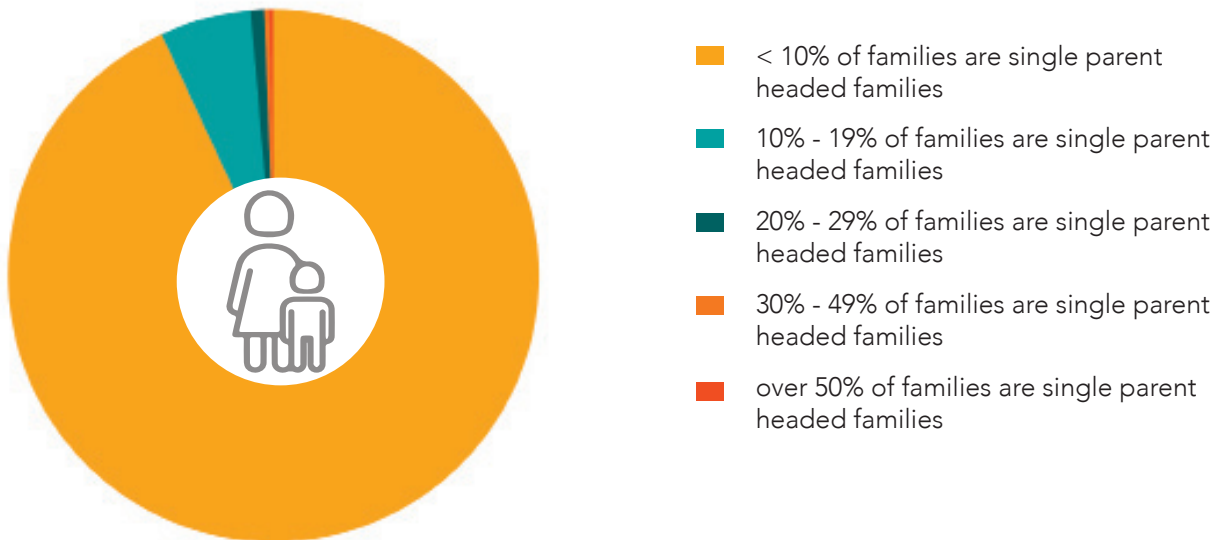


Less than 10% of families receive Samurdhi in 64.1% of all settlements. 10%-19% of families receive Samurdhi in 17.7% of all settlements. 20%-29% of families are Samurdhi recipient families in 8.6% of all settlements. 30%-49% of families receive Samurdhi in 5.7% of all settlements. Over 50% of families receive Samurdhi in only 3.8% of all settlements.

**A majority of settlements have low levels of government assistance through Samurdhi.**

**4.4.5. INDICATOR 21: SINGLE PARENT HEADED FAMILIES IN THE SETTLEMENT**

<b>Single Parent Headed Families in the Settlement</b>		
<b>Category</b>	<b>No. of Settlements</b>	<b>%</b>
< 10% of families are single parent headed families	1266	93.1
10% - 19% of families are single parent headed families	76	5.6
20% - 29% of families are single parent headed families	14	1.0
30% - 49% of families are single parent headed families	1	0.1
over 50% of families are single parent headed families	3	0.2
<b>Total</b>	<b>1360</b>	<b>100</b>

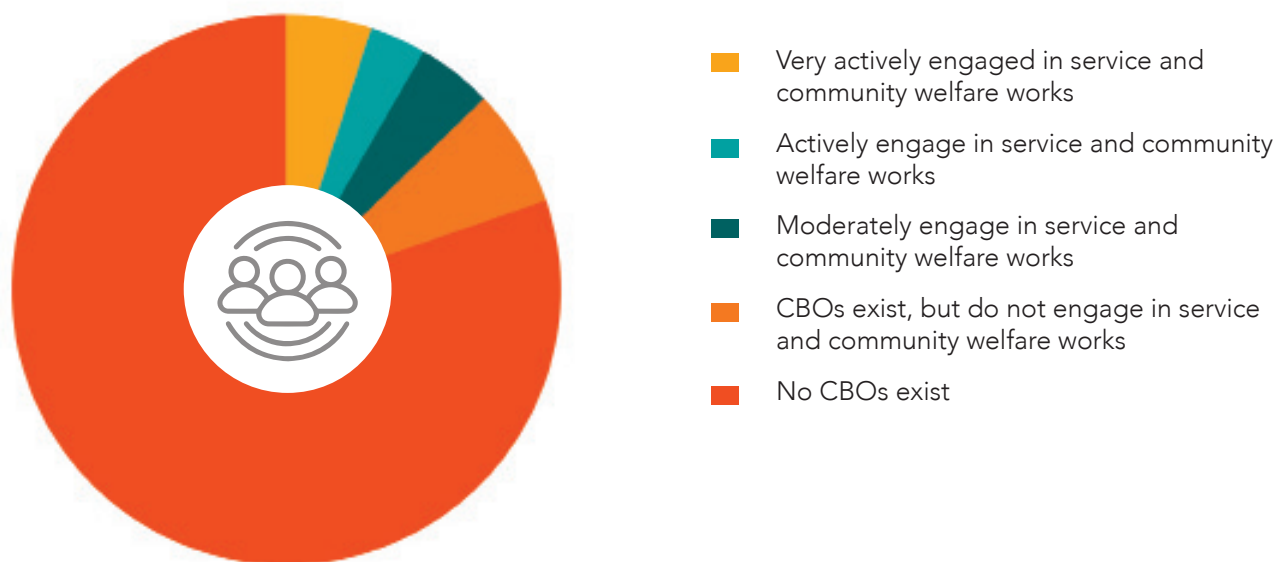


Less than 10% of families are single parent headed families in 93.1% of all settlements. In 5.6% of all settlements, 10%-19% of families are single parent headed families. 1% of settlements have 20%-29% of families that are single parent headed. One settlement had 30%-49% of families that are single parent headed families. Over 50% of families are single parent headed families in 3 settlements.

#### 4.5. STATUS OF SOCIAL CAPITAL

##### 4.5.1. INDICATOR 22: FUNCTIONING OF COMMUNITY-BASED ORGANISATIONS (CBOs) IN THE SETTLEMENT

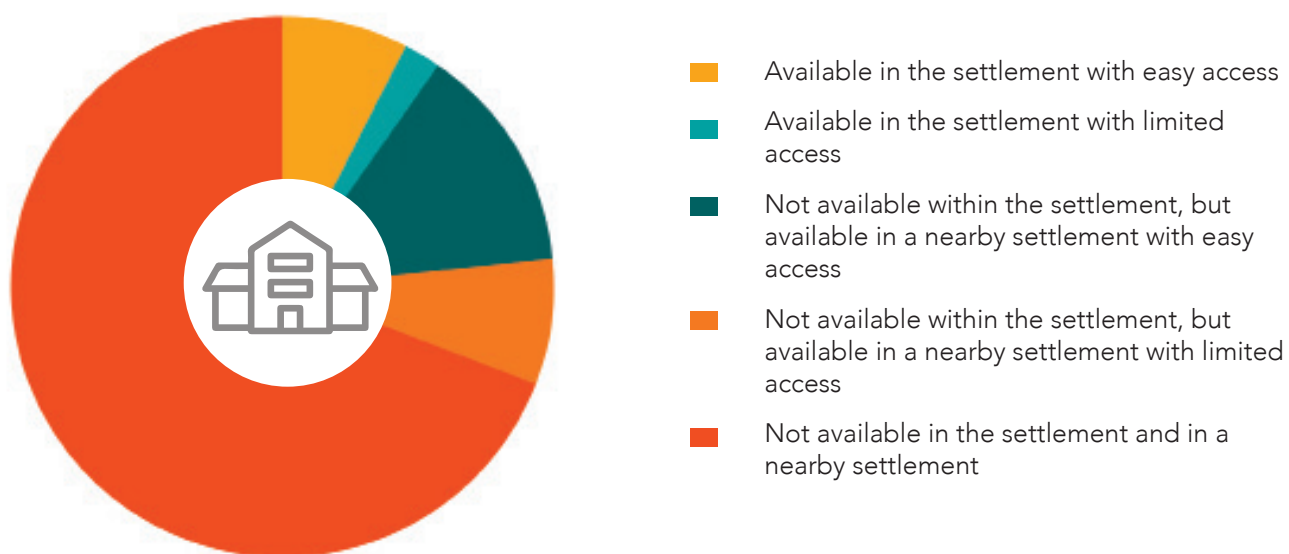
Functioning of Community-Based Organisations (CBOs) in the Settlement		
Category	No. of Settlements	%
Very actively engaged in service and community welfare works	70	5.1
Actively engage in service and community welfare works	45	3.3
Moderately engage in service and community welfare works	61	4.5
CBOs exist, but do not engage in service and community welfare works	94	6.9
No CBOs exist	1090	80.1
<b>Total</b>	<b>1360</b>	<b>100</b>



No CBOs exist in a majority of settlements (80.1%). In 6.9% of all settlements, CBOs exist but do not engage in service or community welfare work. In 4.5% of settlements, CBOs moderately engage in service and community welfare work.

#### 4.5.2. INDICATOR 23: AVAILABILITY AND ACCESSIBILITY TO A COMMUNITY CENTER

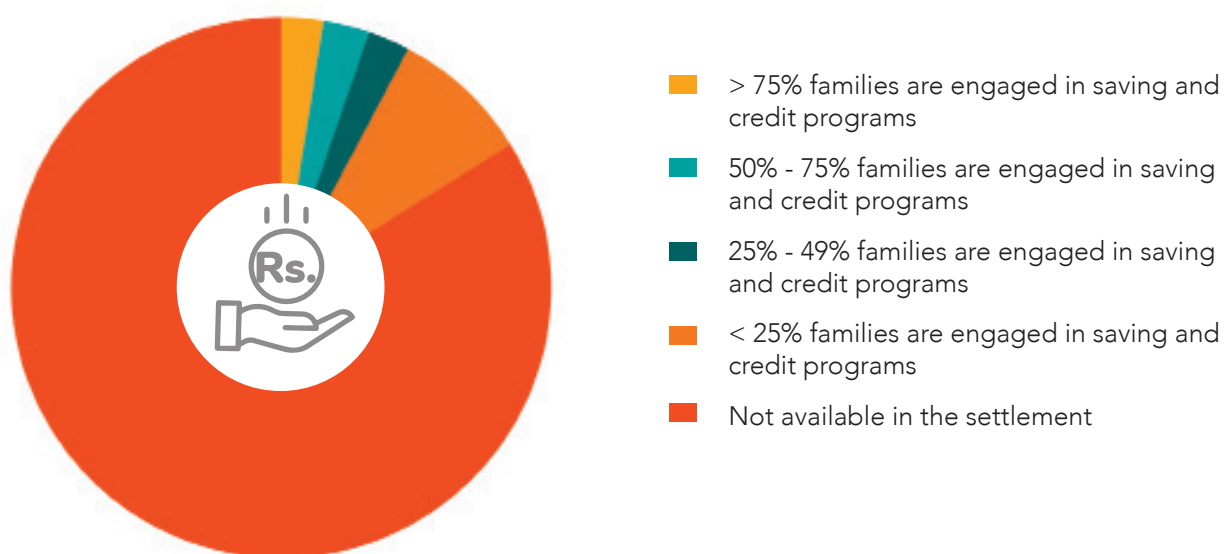
Availability and Accessibility to a Community Center		
Category	No. of Settlements	%
Available in the settlement with easy access	104	7.6
Available in the settlement with limited access	30	2.2
Not available within the settlement, but available in a nearby settlement with easy access	186	13.7
Not available within the settlement, but available in a nearby settlement with limited access	102	7.5
Not available in the settlement and in a nearby settlement	938	69.0
<b>Total</b>	<b>1360</b>	<b>100</b>



For most settlements (69%), community centers are not available in the settlement or any other settlement nearby. 7.5% of all settlements can access a community center that is available in a nearby settlement, although the access is limited. For 13.7% of settlements, a community center is available in a nearby settlement with easy access. For 2.2% of settlements, a community center is available in the settlement, although with limited access. Only 7.6% of all settlements have easy access to a community center within the settlement.

### 4.5.3. INDICATOR 24: NO. OF FAMILIES ENGAGE IN COMMUNITY SAVING AND CREDIT PROGRAMS

No. of Families engage in Community Saving and Credit Programs		
Category	No. of Settlements	%
> 75% families are engaged in saving and credit programs	37	2.7
50% - 75% families are engaged in saving and credit programs	37	2.7
25% - 49% families are engaged in saving and credit programs	33	2.4
< 25% families are engaged in saving and credit programs	114	8.4
Not available in the settlement	1139	83.8
<b>Total</b>	<b>1360</b>	<b>100</b>

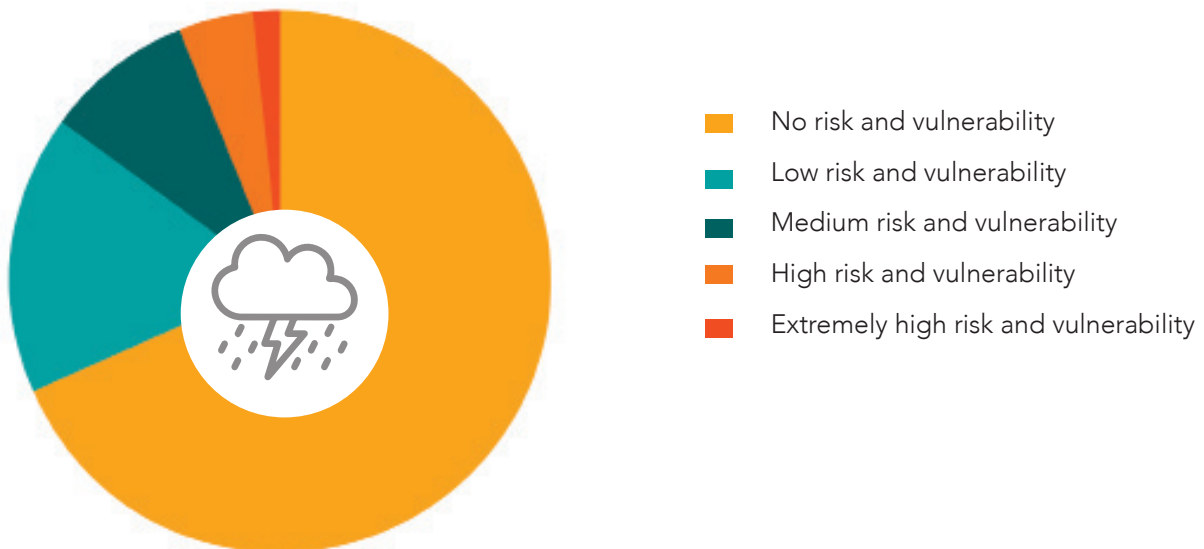


Community saving and credit programs are not available in a majority (83.8%) of all settlements. Less than 25% of families are engaged in community saving and credit programs in 8.4% of all settlements. The survey results indicate that 5.4% of settlements have 50% and above families engaged in savings and credit programmes. In 10.8% of settlements, 25-49% of families are engaged in savings and credit programmes.

**83.8% of the settlements do not have any savings and credit programs. This indicates that there is an opportunity to initiate savings and credit programs for a significant number of settlements.**

**4.5.4. INDICATOR 25: RISK & VULNERABILITY FOR HAZARDS - NATURAL HAZARD**

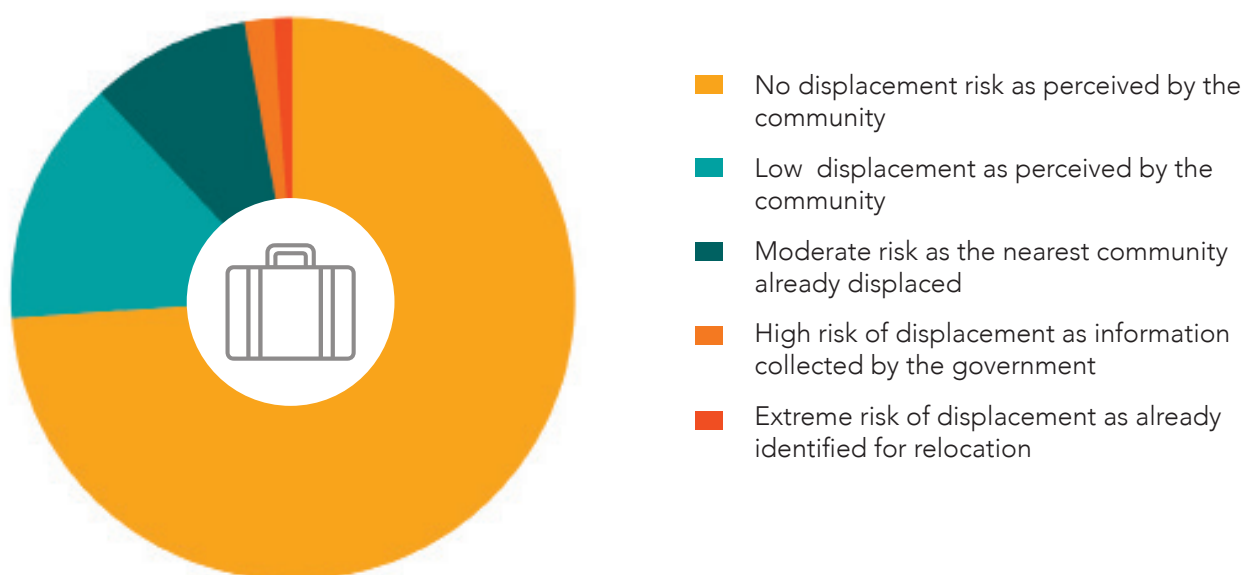
Risk & Vulnerability for Hazards - Natural Hazard		
Category	No. of Settlements	%
No risk and vulnerability	931	68.5
Low risk and vulnerability	227	16.7
Medium risk and vulnerability	118	8.7
High risk and vulnerability	63	4.6
Extremely high risk and vulnerability	21	1.5
<b>Total</b>	<b>1360</b>	<b>100</b>



Natural hazards (as provided in the definitions) include heavy rains and flash floods, living close to garbage dumps, destructive heavy winds, possible landslides and fire. Most settlements (68.5%) do not face any risk or vulnerability to natural hazards. 16.7% of settlements have low risk or vulnerability to natural hazards. 8.7% of all settlements face medium risk and vulnerability to natural hazards. 4.6% of settlements face high risk and vulnerability to natural hazards. 1.5% of settlements face very high risk and vulnerability to natural hazards.

#### 4.5.5. INDICATOR 26: LEVEL OF DISPLACEMENT RISK AS PERCEIVED BY THE COMMUNITY

Level of Displacement risk as perceived by the community		
Category	No .of Settlements	%
No displacement risk as perceived by the community	1006	74.0
Low displacement as perceived by the community	195	14.3
Moderate risk as the nearest community already displaced	122	9.0
High risk of displacement as information collected by the government	22	1.6
Extreme risk of displacement as already identified for relocation	15	1.1
<b>Total</b>	<b>1360</b>	<b>100</b>

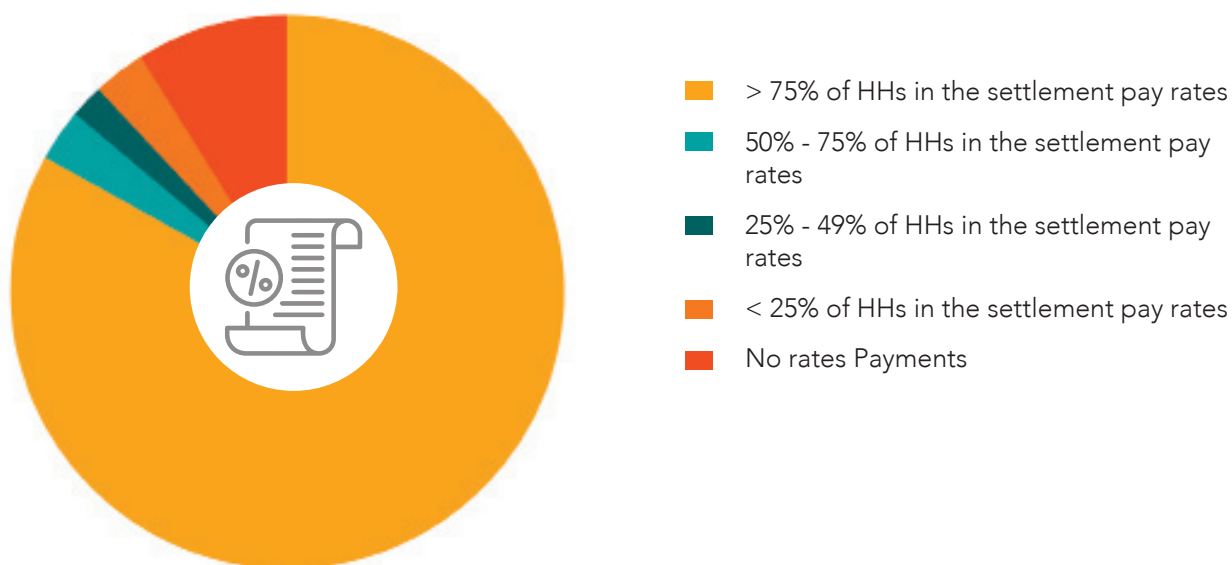


No displacement risk is perceived by the community in most of the settlements (74%). Low displacement risk is perceived by 14.3% of settlements. Moderate risk of displacement (as the nearest community is already displaced) in 9% of all settlements. High risk of displacement is perceived in 1.6% of all settlements as Information has been collected by the government. Extreme risk of displacement as perceived by the community is present in 1.1% of all settlements, as the settlement has been identified for relocation.



**4.5.6. INDICATOR 27: PAYMENT OF RATES TO THE MUNICIPALITY**

Payment of Rates to the Municipality		
Category	No .of Settlements	%
> 75% of HHs in the settlement pay rates	1131	83.2
50% - 75% of HHs in the settlement pay rates	41	3.0
25% - 49% of HHs in the settlement pay rates	26	1.9
< 25% of HHs in the settlement pay rates	42	3.1
No rates Payments	120	8.8
<b>Total</b>	<b>1360</b>	<b>100</b>



Payment of annual rates to the Municipal Council is a legal obligation for the residents of Colombo. More than 75% of households in the settlement pay rates to the Municipality in a majority of the settlements (83.2%). 50%-75% of households in the settlement pay rates to the Municipality in 3% of all settlements. 25%-49% of all households in the settlement pay rates to the Municipality in 1.9% of all settlements. Less than 25% of all households in the settlement pay rates to the Municipality in 3.1% of all settlements. 8.8% of all settlements pay no rates to the Municipality.

**A majority of settlements have high levels of payments of municipal rates, indicating that this is an important part of proving their occupancy and fighting for their rights.**

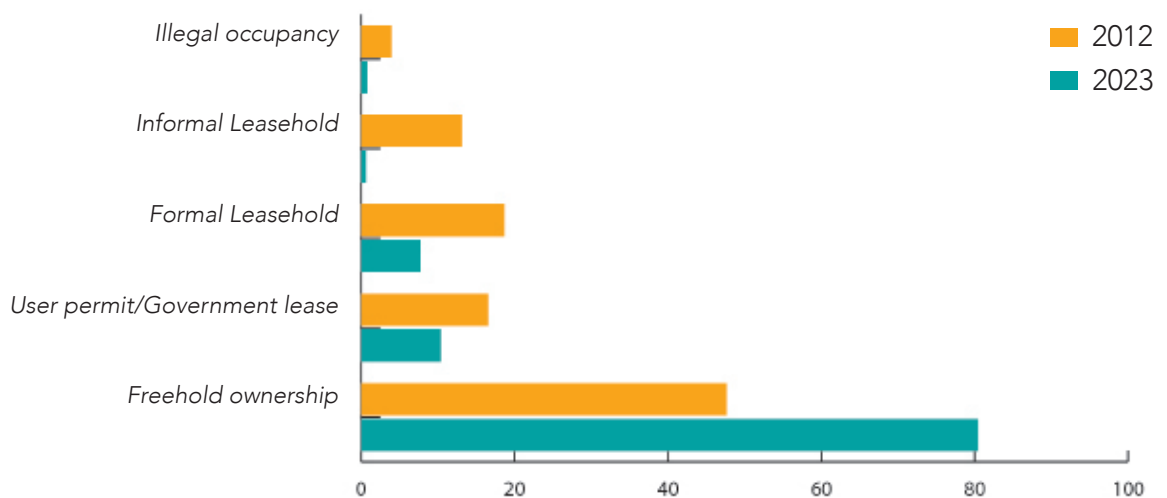
# CHAPTER 05: FINDINGS AND ANALYSIS

## SECTION 1

### INDICATOR COMPARISON

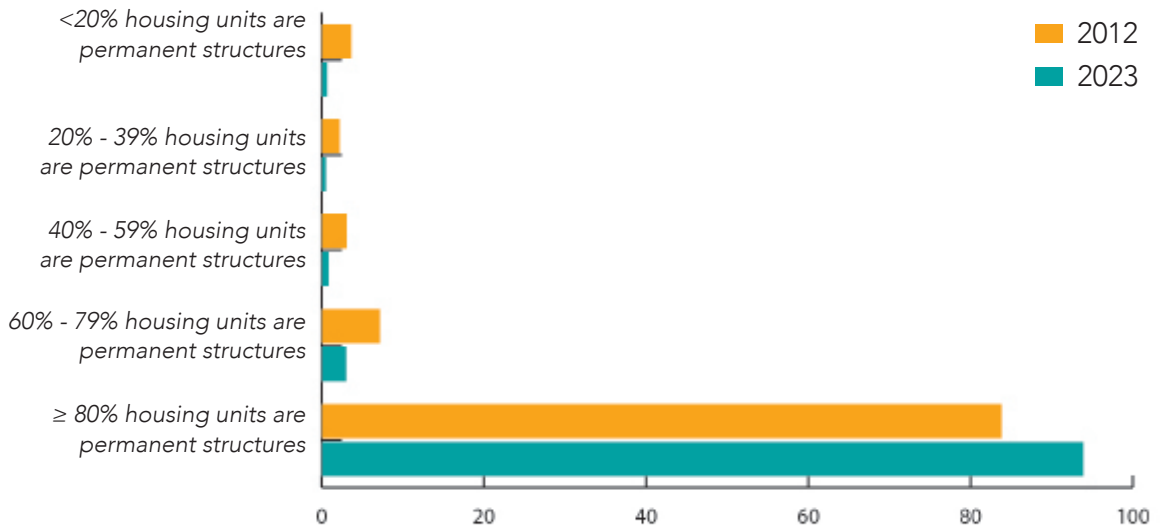
The following section provides a comparison of 1263 settlements surveyed in 2012 and 2023, across a selected set of indicators, in order to understand changes during the past 10 years. The number of settlements (1263) was arrived at by removing resettled communities, new settlements (captured in the 2023 survey but not captured in USS 2012), government flats (captured in the USS in 2012 but not captured in CSS 2023). Clusters that can no longer be considered as settlements have been removed from the list.

### TYPES OF TENURE RIGHTS



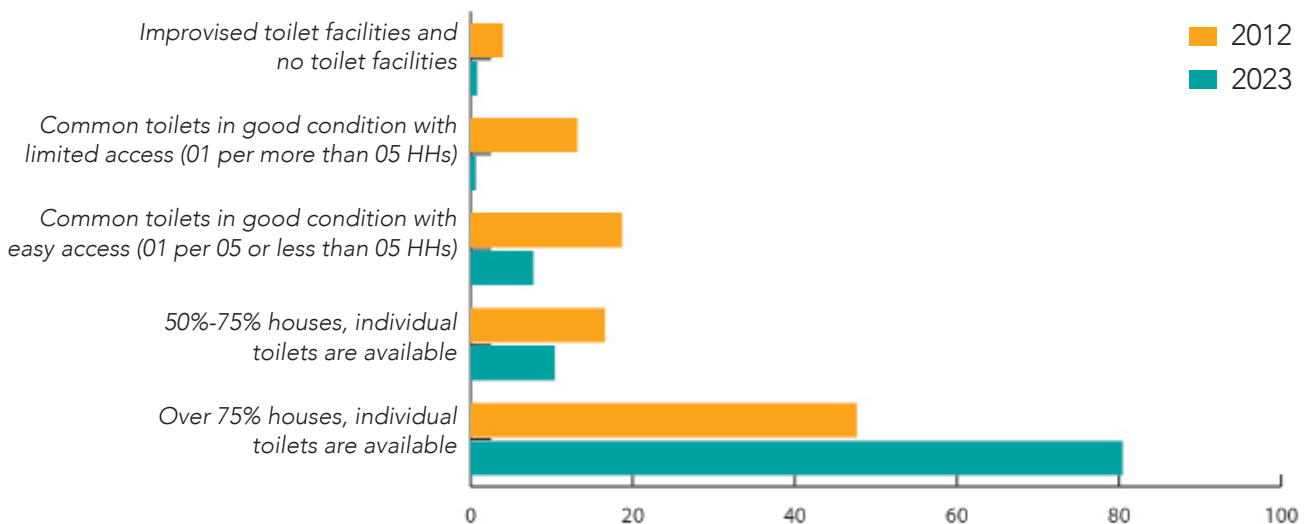
In terms of the conditions of the houses in the settlements surveyed, in a majority of the settlements (94.3%), 80% or more housing units are permanent structures. This has changed from 83.85% in 2012

### HOUSING CONDITIONS



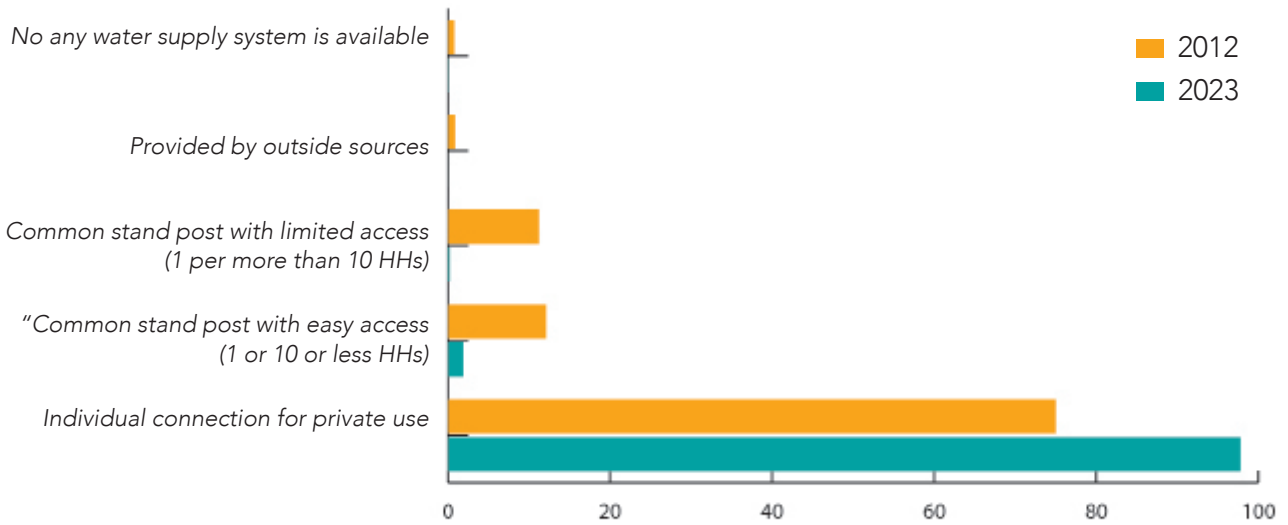
to 94.3% in 2023. It is evident that in both 2012 and 2023 surveys, the settlements having houses with permanent structures have increased more than the freehold ownership of land in the settlements. This indicates that people are building permanent housing units even without freehold ownership, which may be *inter alia* due to perceptions of low displacement risk and rate payments made to the municipality. Overall, there seems to be a sense of security derived from being recognised by the government.

### AVAILABILITY OF TOILET FACILITIES



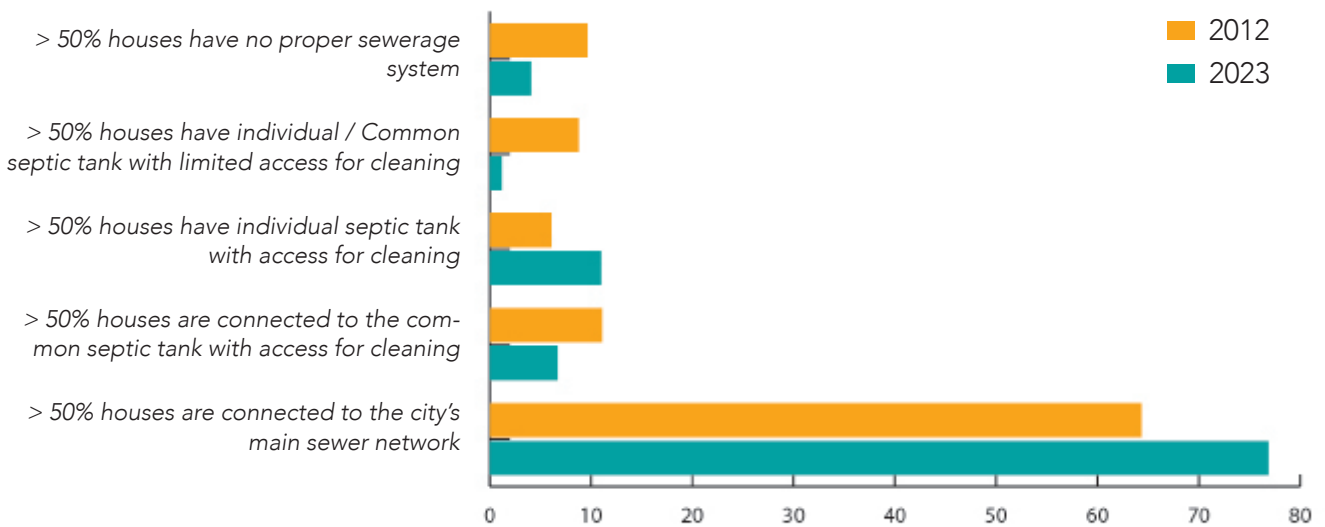
The availability of toilet facilities for housing has significantly improved in 2023, in comparison to 2012. In 2012, 47.6% of settlement communities had individual toilets, which increased to 80.4% in 2023. Improvised toilet facilities and no toilet facilities are only seen in about 10 settlements (0.79%) in 2023 when compared to 50 settlements (3.96%) in 2012. Improved housing conditions, increased levels of individual water connections and poor maintenance of community toilets may have contributed to the increase in the number of individual toilets during the past 10 years.

**ACCESS TO POTABLE WATER**



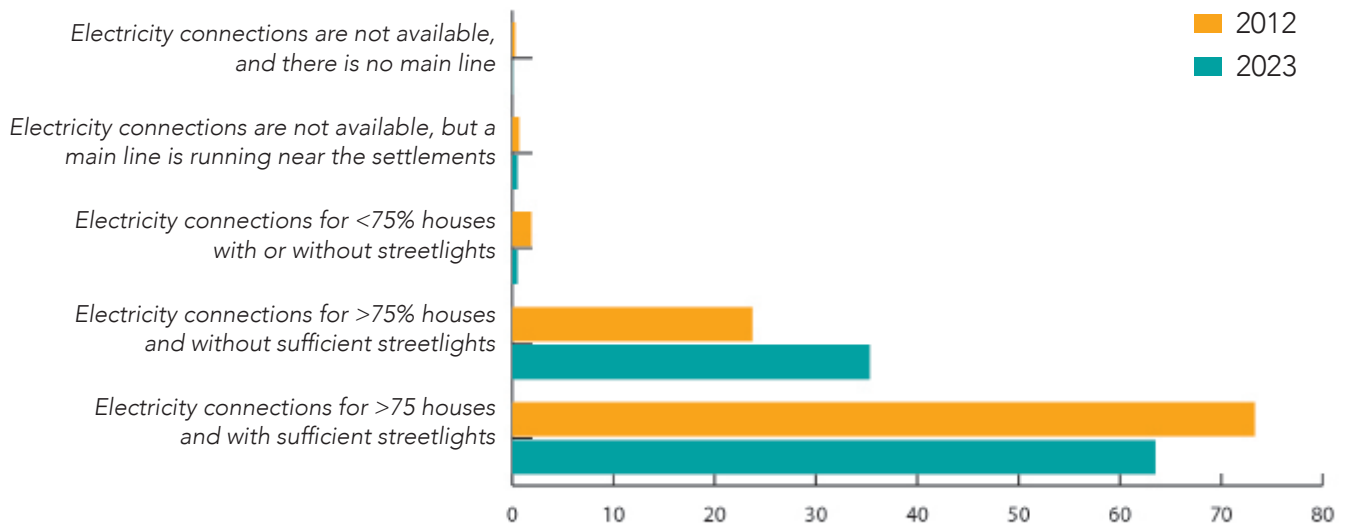
Access to potable water supply through individual connections is seen in a majority of (97.78%) of settlements surveyed in 2023 compared to 74.98% of settlements in 2012. While a clear improvement in individual connections for private use can be seen at present, the number of common stand posts for potable water supply has reduced from 23.35% settlements to 2.14% settlements indicating a noticeable shift in the number of public taps available for use by those living in the settlements. This can be attributed to efforts to reduce non-revenue water under the Greater Colombo Water and Wastewater Management Improvement Investment Program. Since 2012, the NWSDB's Randiya Unit has been responsible for disconnecting public standpipes and encouraging low-income urban households to obtain individual water connections. The increased numbers of individual water connections is mainly due to the success of the above mentioned programme.

**SEWAGE SYSTEM**



In 2023, 76.96% of all settlements had more than 50% of their houses connected to the city's main sewer network. This is an improvement from 64.37% of settlements having more than 50% of houses being connected to the city's main sewer network in 2012. The number of settlements with houses that have no proper access to a sewerage system has reduced from 9.66% in 2012 to 4.12% in 2023.

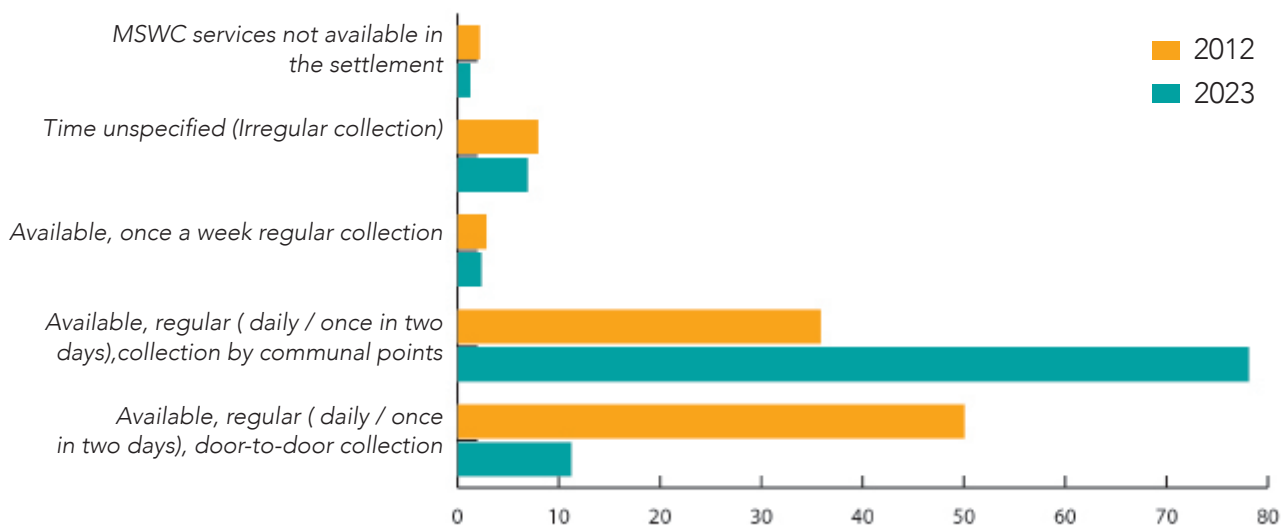
### AVAILABILITY OF ELECTRICITY



A majority of settlements (98.81%) have more than 75% of houses with access to an electricity connection with or without sufficient streetlights in 2023 which was recorded as 97.07% in 2012.

However, it is evident that the number of settlements having sufficient street lights has decreased in 2023 when compared to the situation in 2012 (i.e. the settlements with sufficient street lights in 2012 were 73.32% and in 2023 which is recorded as 63.50%). Residents of the settlements surveyed in 2023 noted that streetlights are only available at the entrance to the settlement, and often don't function properly.

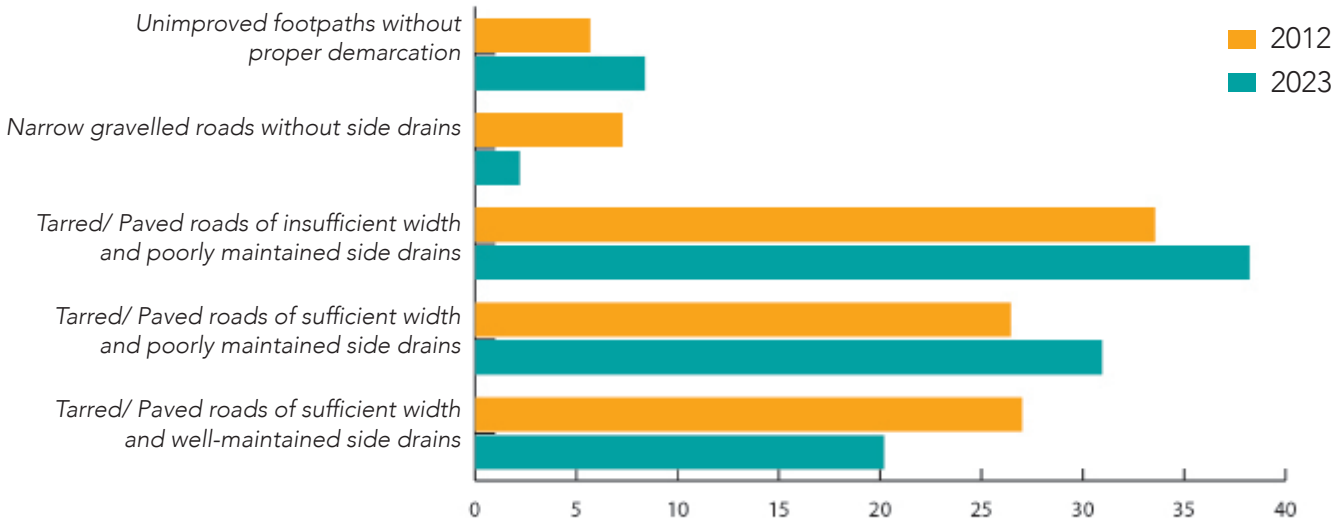
### MUNICIPAL SOLID WASTE COLLECTION SERVICES



The availability of a regular (daily or once in two days) municipal solid waste collection service is prevalent in a majority of settlements (89.39%) in 2023 which is an increase from 86.94% in 2012. When analysing the method of Solid waste collection by the CMC it is observed that the Door-to-Door collection has decreased to 11.2% in 2023 when compared to the 51.07% in 2012 situation. Along with the above situation it is evident that collection from communal points has increased to 78.15% in 2023 from 35.87% in 2012. This may be attributed to the poor access roads in the settlements and

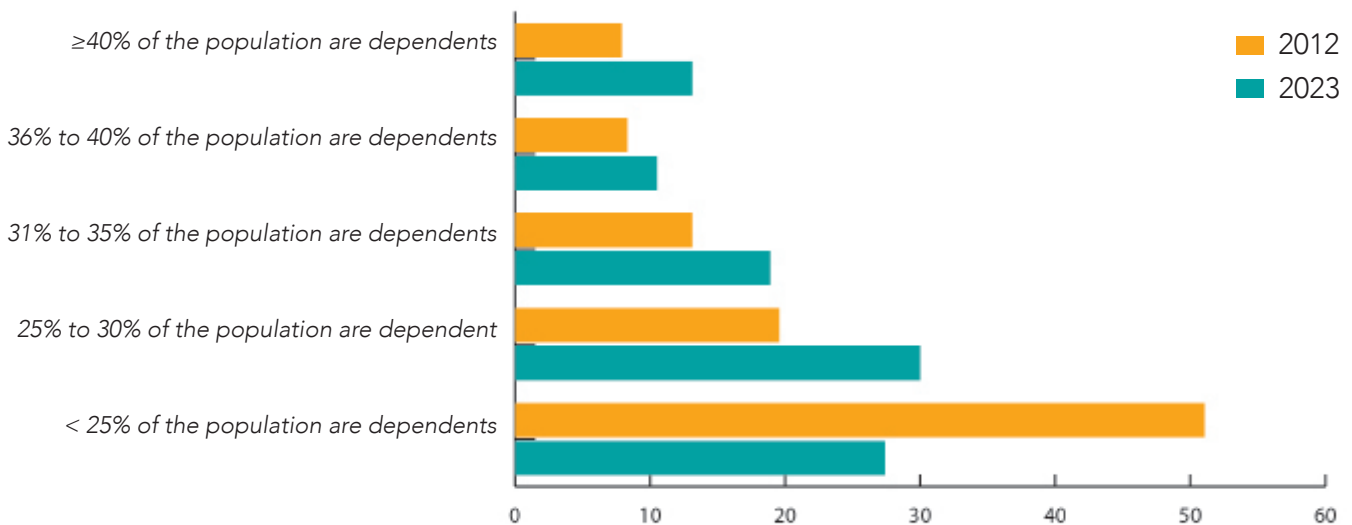
the changes introduced to the collection system of solid waste by the CMC contracting out solid waste collection services by private companies as opposed to solely by the Colombo Municipal Council (CMC) back in 2012.

**CONDITION OF INNER ACCESS ROADS**



Over the past ten years, the condition of the inner access roads of settlements has not improved significantly. 20.19% of settlements have inner access roads that are tarred/paved with sufficient width and well-maintained side drains in 2023 and this has reduced from 27% in 2012. When compared to the situation of access roads without well-maintained side drains which is 72.99% in 2012 it has increased up to 79.81% in 2023. This indicates deteriorating conditions of inner access roads in the settlements.

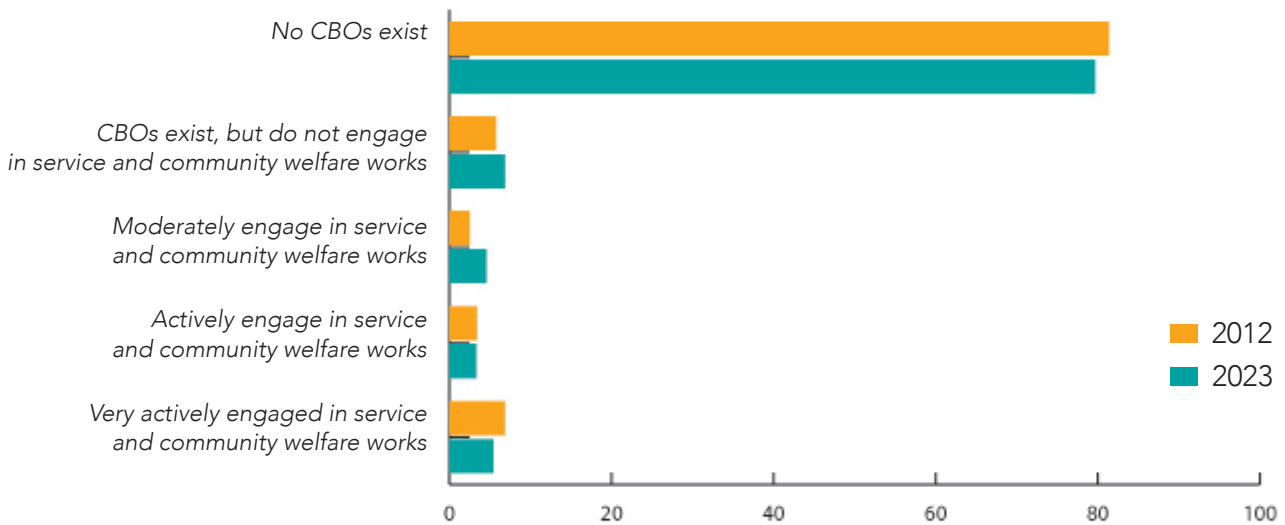
**DEPENDENCY RATE IN FAMILIES**



In 2012, more than half (51.07%) of all settlements had a population of which less than 25% were dependents.

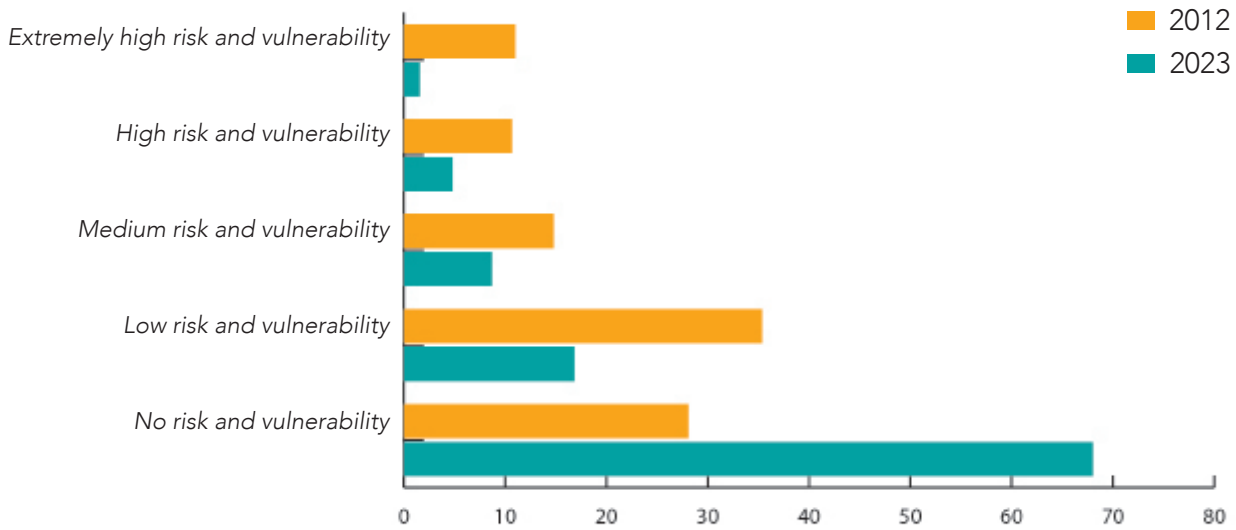
This has reduced to 27.4% in 2023. Further, 13.14% of all settlements in 2023, had a population of which 40% or more were dependents. This has increased from 7.92% in 2012. This may be attributed to a growing ageing population, number of differently able persons within the settlements and an increase in the number of children in the settlement etc.

**FUNCTIONING OF CBOS**



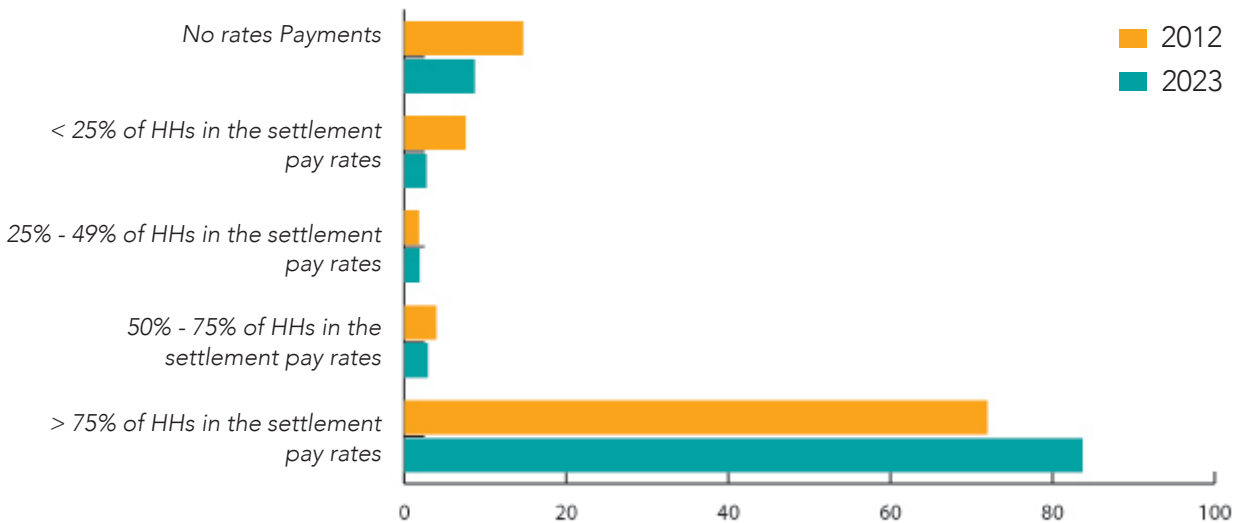
With regards to the functioning of CBOs in the settlement it was found that in 2012, 81.3% of all settlements had no CBOs. This has reduced to 79.73% in 2023. According to the above chart, it is evident that very active CBOs exist in 5.46% of settlements in the year 2023 while this figure was 6.89% in 2012. The non-functioning of CBOs and their poor performances in the settlement may be the result of a lack of CBO promotion and engagement programs by the CMC and their formal sector institutions. The other reason for the non-functioning of CBOs may be that there is no incentive to engage in CBOs or initiate a new CBO as the basic services are already acquired in most of the settlements in Colombo.

**RISK AND VULNERABILITY FOR HAZARDS - NATURAL HAZARD**



In 2012, the number of settlements with no risk and vulnerability for natural hazards was 28.11% of all settlements. This has increased significantly to 68.01% of settlements in 2023, indicating that many settlements now face no risk and vulnerability to natural hazards. The settlements with extremely high risk and vulnerability to natural hazards have reduced to 1.58% of settlements in 2023, compared to 11.01% of all settlements in 2012.

**PAYMENT OF MUNICIPAL RATES**



In 2023, more than 75% of houses in the settlement pay rates to the municipality in 83.69% of settlements. The number of settlements with more than 75% of houses paying rates to the municipality has increased from 71.97% in 2012. The number of settlements with houses paying no rates to the municipality has reduced from 14.65% of settlements in 2012 to 8.71% of settlements in 2023.



## SECTION 2

### KEY FINDINGS

#### TRENDS IN SETTLEMENTS: HOUSING AND POPULATION

The number of settlements has declined from 1735 in 2012 to 1360 in 2023. While reasons for a settlement disappearing are not always clear, the primary reason for the decline in settlements can be considered due to communities being involuntarily relocated to high-rise apartments under the Urban Regeneration Programme implemented by the Urban Development Authority from 2011.

After adjusting for settlements that no longer exist in 2023, the total population in settlements has grown by 15% since 2012, while the number of families residing in settlements has increased by 3%. This indicates that while families have expanded in size, migration into settlements in Colombo has been low. It is further estimated that out of 1360 settlements, approximately 17 are newly established settlements. This is supported by data indicating that a majority of families in settlements have resided in settlements for over 30 years. The new settlements are mostly located in Maligawatta and Grandpass, and four out of the 17 consist of over a hundred houses, while the majority contain fewer than 50 houses.

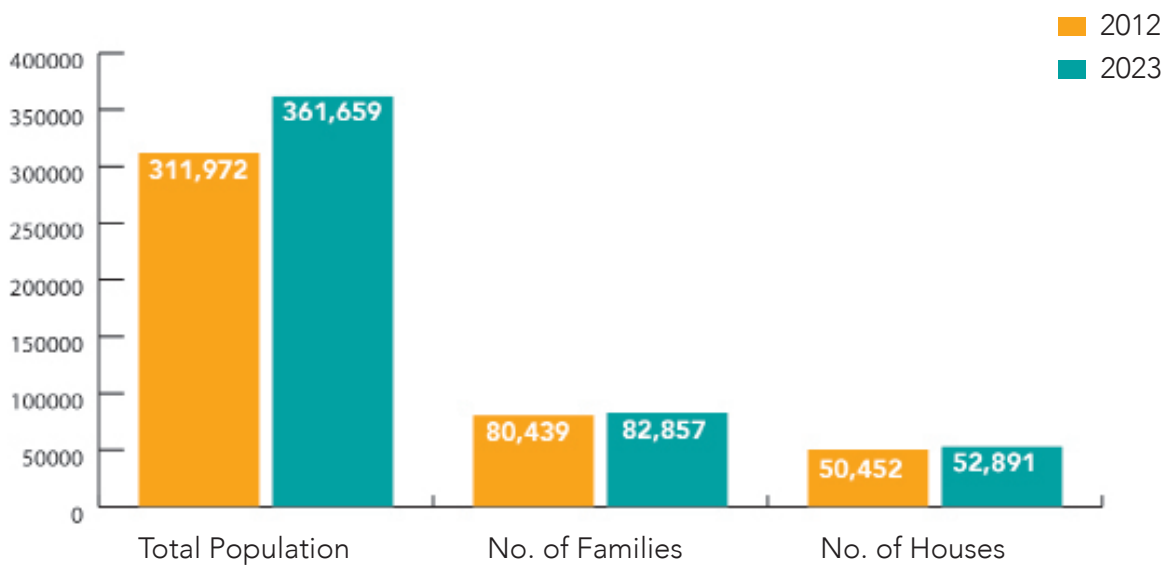


Figure 1: Comparison of settlements in the city of Colombo 2012 & 2023.

Colombo's settlements are not sprawling unlike other South Asian cities, but rather small in size and fragmented in distribution, apart from some concentration in North Colombo and the ward of Pamankada. 54% of settlements have 20 or fewer housing units, while only 2.8% of settlements have over 200 houses. (See Figure 2. Map 4 of settlements by housing size). This is further supported by trends in housing increase in settlements. Since 2012, housing stock has increased by 4.8% with only 2439 new houses being added.

<b>No. of increased Houses</b>	<b>No. of. Settlements</b>	<b>%</b>
1 - 10	369	68.84
11 - 20	66	12.31
21 – 50	56	10.45
51 – 100	23	4.29
101 - 200	12	2.24
> 200	10	1.87
<b>Total</b>	<b>536</b>	<b>100.00</b>

*Figure 2: Increase in houses from 2012 to 2023 in 1236 settlements*

536 settlements saw an increase in the number of houses since 2012. The increase in houses in a majority of settlements consists of 1 - 10 houses, with only 22 settlements seeing significant growth of over 100 houses. Settlements with the most significant increases in housing stock were located in Mattakkuliya (D1) and New Bazar (D2A).

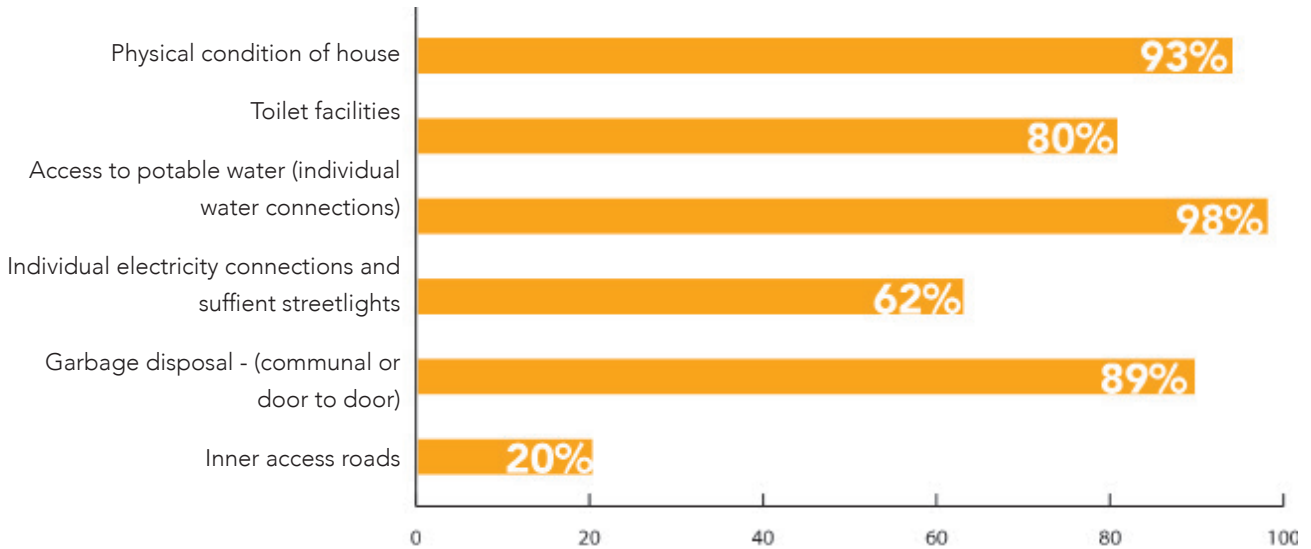
This is complemented by data on housing development indicators which suggest larger families are being accommodated by vertical expansion rather than new houses. A majority of settlements have housing stock that consists of multiple floors, with the majority having over 75% of the settlement dominated by houses with Ground floor plus one floor or more. These settlements are predominantly situated on land that is owned by the occupants with freehold tenure rights or long-term lease. Freehold tenure offers security that enables households to invest in their property and adjust it according to their needs. It also underscores the importance of providing deeds.

Settlements with more multiple storey buildings were characterised by long standing occupants. This suggests that the original occupants continue to reside in these settlements and have incrementally added to existing structures over a period of time. Greater occupancy rates (number of people per house) in these settlements also suggests that floors are added to accommodate expanding families over time.

While renting households were generally located in areas with multiple storeys, settlements with high rates of multi-storey buildings did not have a significantly higher renting population. While rental families perhaps do not play a role in encouraging incremental housing extensions, they still remain an important feature of settlements and are often ignored when relocation programmes are implemented. While a majority of settlements reported low rates of renting, in terms of numbers 178 settlements still reported that over 50% of housing units were occupied by renting families. These were found mostly in Modara, Aluthmawatha and Bluemendhal (D1).

**LEVELS OF SERVICE PROVISIONING AND PHYSICAL INFRASTRUCTURE**

1011 (74%) of settlements are fully upgraded indicating that they have secure tenure, excellent service provisioning and permanent housing structures. A further 340 or 25% of settlements can be considered upgraded.



*Figure 3: Percentage of settlements with highest scores for infrastructure provision.*

97.9% of settlements have individual water connections due to efforts by the NWSDB to reduce non-revenue water and encourage low-income dwellers to access individual metered water connections. 28 settlements continue to rely on common standposts to access water. While these settlements are distributed across 18 wards; Slave Island, Hunupitiya and Thimbirigasaya had higher concentrations of these settlements. Settlements reliant on common standposts had an average of 22 houses, with the largest settlement having 110 houses. 18 out of 28 settlements had common toilets used by a majority of residents. In two settlements, households had individual toilets but relied on common taps for water.

While levels of individual toilets in settlements are high at 80%, they remain lower than levels of individual water connections. Out of the 113 settlements that rely mostly on common toilets, 95 have individual water connections. In many settlements the removal of public taps occurred parallel to connecting households to individual meters, in order to incentivise individual connections and reduce non-revenue water. As such, even those using common toilets often carry water from their homes, which is inconvenient and may impede the cleanliness and maintenance of common toilets as water costs will be borne by individual households. Many settlements feature small houses that do not have the space for individual toilets and cannot bear the expenses of construction.

In terms of solid waste disposal, almost 90% of settlements had regular waste disposal services, either from door-to-door or at communal collection points. 17 settlements reported that there was no municipal waste disposal service available in the settlement, with many of these settlements being located in Mahawatta. 94 settlements reported irregular waste collection, out of which 28 settlements were located in Dematagoda.

Quality of inner access roads differed widely across settlements but only 20% of settlements had properly maintained drains and adequate inner access roads. A majority of settlements had narrow roads, and even those with wide roads had poorly maintained drains. 117 settlements had only unimproved footpaths and tended to be located in Maligawatta East, Mahawatta and Kotahena West. 35% of settlements with poor waste disposal services had inner access roads of insufficient width, this may not explain the irregularity of services. Poorly maintained drains were frequently flagged as a problem. Non maintenance of drains has led to flooding during the rainy season, increased rats and mosquito breeding and communities often identify the link between poorly maintained drains and disease.

While coverage of service provisioning has been comprehensive, a handful of settlements have fallen through the cracks. 10 settlements do not have any metered electricity connections or streetlights. These settlements were located in Kupiyawatta East, Maligawatta West, Wanathamulla and Kirulapone and had an average 11 houses per settlement. All but one settlement out of these 10 had a power line running near the settlement, indicating that these settlements could be added to the grid. 8 out of 10 settlements without metered electricity had individually metered water and one relied on a common tap, showing the greater coverage of individual water connections. Reasons for remaining without electricity are unclear. While electricity connections require more permanent housing conditions such as a concrete wall, half these settlements have permanent housing. Only 3 of these settlements perceived a risk of displacement, and did not mention the lack of electricity as a serious issue.

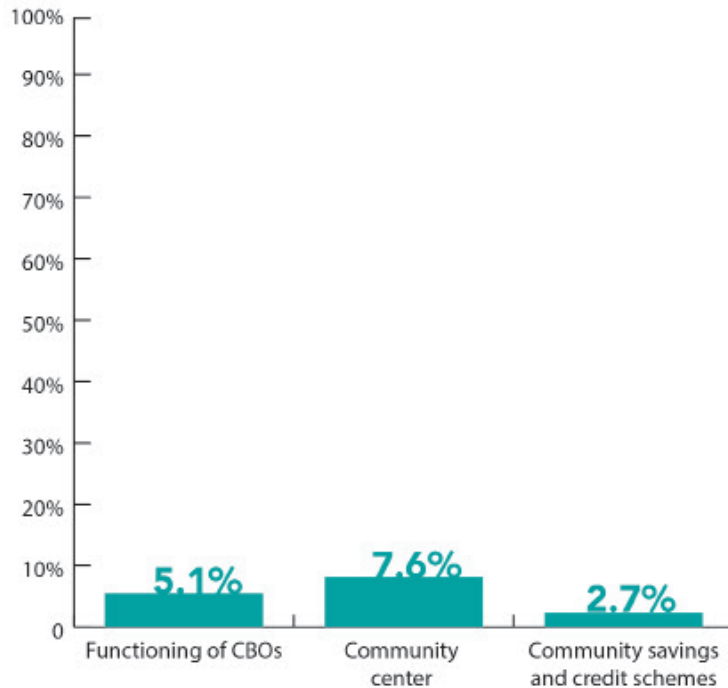
## SOCIAL INDICATORS

Social indicators reveal not only socio-economic characteristics such as income and dependency rates, but also levels of social cohesion and social capital in the settlement as understood through active functioning of CBOs and community savings programmes in the settlements. These indicators are important as communities are not defined by physical infrastructure alone, and furthermore, a focus only on physical services and amenities may be at the expense of other factors that contribute to a good quality of life and create sustainable and livable cities. As such, a combination of both physical and social indicators reveals the sustainability of a settlement as captured below.

Score Range	Category	No. of Settlements	%
108-135	Neighbourhoods with High Sustainability	436	32.06
81-107	Neighbourhoods with Moderate Sustainability	911	66.99
54-80	Neighbourhoods with Low Sustainability	12	0.88
27-53	Neighbourhoods with Poor Sustainability	1	0.07
	<b>Total</b>	<b>1360</b>	<b>100.00</b>

Figure 4: Percentage of sustainability of settlement

While settlements achieved high scores for physical infrastructure indicators, only 5% of settlements had high social indicators. Fully upgraded settlements scored lower on social indicators, and a combination of both social and physical indicators show that a majority of settlements are moderately sustainable.



*Figure 5: Percentage of settlements with highest scores for social capital indicators*

80% of settlements had no functioning CBO in the settlement and only 5% had a CBO that was actively engaging in community works. Moreover, 69% had no access to a community center, even in a neighbouring settlement. 84% have no access to community credit or savings schemes in the settlement. The absence of active CBOs and community savings schemes together reveals that communities do not have support for livelihood development or skills training that might be conducted by active CBOs or financed by community saving schemes. The absence of the latter may also leave them vulnerable to unregulated microfinance schemes and predatory lenders.

The high levels of physical upgrading may be one potential reason that CBOs are no longer active, as they are often galvanised by common problems such as poor service provisioning and lack of deeds or tenure documents. However, in the context of the economic crisis and state-driven displacement, CBOs can play a crucial role in advocating for communities and serve as a platform or node for addressing various socio-economic issues.

## COLOMBO'S SETTLEMENTS AND SUSTAINABLE DEVELOPMENT GOAL 11

Research findings indicate progress in SDG 11, to make cities inclusive, safe, resilient and sustainable. Target 11.1, which is to ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums, is particularly relevant and is measured by the proportion of urban population living in slums, informal settlements or inadequate housing. CSS data shows that a majority of settlements are fully upgraded, consisting of permanent structures with individual service provisioning. Moreover, a majority of settlements have freehold ownership of land, with only 5% of settlements having no legal tenure. This is the legacy of decades of participatory housing policies such as the One Million Houses Programme, that has enabled in-situ development and allowed settlements to reap the benefits of security of tenure.

When considering informal settlements or those without adequate legal tenure, it is important to note that these settlements often have other ways of establishing legitimate residence with the consent and active participation of state institutions. For example, over half these settlements have individually metered electricity connections and 90% have individually metered water connections. In terms of infrastructure provisioning, their houses have been viewed as authorised by government bodies responsible for service provisioning. In addition, almost half of these settlements pay municipal rates, indicating that they are contributing to the municipality, and that the municipality recognises the validity of their address and residence. Despite the absence of deeds, permits or leases to prove occupancy, a majority of families in these settlements have lived there for over 30 years. In contextualising universal SDGs to a Sri Lankan context, it is important to note that informal does not equal inadequate when it comes to housing.

In terms of progress in accessibility of public transport (Target 11.2), CSS data reveals that 72.5% of settlements in Colombo have a bus stand within 500 metres, with 54% of settlements having a bus stand within 250 metres. This indicates that settlements are well located in terms of public transport and accessibility. SDG 11 indicators for access to public space (Target 11.7) consider the proportion of public space available to the public, while CSS indicator 15 ranked the availability and accessibility of an open space for the settlement. Access to public space was very poor, with only 4% of settlements having an open space within the settlement. These tended to be larger settlements having an average of 109 houses per settlement. 27% of settlements had an accessible open space nearby, while a majority 63% had no accessible open space, indicating that smaller settlements have no options for leisure, exercise and recreation.

## BEYOND INDICATORS: COMMUNITY PERCEPTIONS

In addition to scorecard indicators, qualitative perceptions and opinions about the settlement were gathered during focus group discussions, revealing both positive and negative perceptions around settlements.

In terms of locational issues, lack of space or limited space for houses was the most commonly cited disadvantage. Lack of parking for vehicles was another frequently mentioned problem. This indicates that while houses have upgraded individually, there is a need for the upgrading and expansion of common spaces and amenities beyond individual service provisioning. The poor maintenance of inner access roads also supports this. Given that families have been able to upgrade and often expand individual houses, the presence of assets such as vehicles must also be accommodated for.

Only a small percentage of settlements (5.6%) mentioned flooding as a disadvantage of the location, and these were generally located in Borella North, Kirulapone and Dematagoda, with flooding from the nearby canal during the rainy season being a considerable problem.

A majority of settlements also identified that the location of the settlement was an advantage as it provided them access to necessary facilities including schools, hospitals, market and places of employment.

Issues related to sewage disposal was a widespread problem reported by communities. This included broken pipes, frequent blockages leading to overflowing toilets and other problems emerging due to poor maintenance and repair. Often communities reported having to pay a regular fee to clean sewage pits due to frequent blockage. Another significant problem was the growing prevalence of rats in settlements, leading to disease. Rats were seen as contributing to sewage issues eg. digging at clay pipes and breaking them, but also as a result of an unhygienic environment caused by poor sewage facilities. These problems can be seen in a context of poor maintenance but also one of strained capacity, as increased family size has been coupled with a drive for individual toilets, requiring individual pits or connections to sewage lines. Prevalence of mosquito breeding grounds in the settlement was another frequently cited health problem.

A majority reported that there was social harmony and unity in the settlement, and while lack of space or facilities for children to play was cited as a problem, 72% of settlements were reported safe for women and children in terms of security and harassment. Communities also noted an increase in drug users in the settlements.

# CHAPTER 06: RECOMMENDATIONS

This chapter puts forward recommendations to address key issues and problems that emerged from both the scorecard ranking as well as other perceptions by community members during focus group discussions.

## GOVERNANCE

- CSS data shows that a majority of low-income settlements in Colombo are fully upgraded, and therefore should not be included in the definitions of slums or shanties. Characterisations of these settlements as “underserved” are also inaccurate as the majority of settlements receive infrastructure provisioning. Government institutions, INGOs, donor agencies and CBOs should adopt a terminology of ‘settlements’ or ‘Neighbourhood/watte’ when describing the urban poor in Colombo, instead of relying on inaccurate generalisations that delegitimise and stigmatise these communities. It is imperative that the physical upgrading efforts of these communities should not be erased in order to justify their removal. Moreover, the media should be sensitive to differences in terminology in their portrayals of the urban poor.
- Settlements have diverse tenure types with many having user permits such as Plot allocation cards issued by the NHDA or CMC. The Government institutions should work towards providing deeds/freehold ownership of land to occupants as this is the strongest form of tenure and will encourage households to invest in their home and community and ensure their tenure security.
- The CMC should revitalise the Community Development Councils (CDCs) which were first formed during the UNICEF founded UBSP and MHP in the 1980s. A majority of CDCs are currently non-functioning and most settlements do not have CBOs. The CMC may revitalise the CDC strengthening process by holding regular meetings with community leaders and providing formal recognition to the CDCs.



## INFRASTRUCTURE

- CMC/NHDA should improve inner access roads of the settlements through a community participation process, where CDC is given the responsibility for maintenance of common spaces in the settlement
- CMC/NHDA should ensure that common/public areas are not converted for private use through regular inspections and awareness raising.
- Ensure regular cleaning and maintenance of drains to prevent flooding and mosquito breeding. Blockage and encroachment of drains should be prevented through regular monitoring and supervision.
- A detailed assessment of existing community toilets should be carried out by the CMC and NHDA, and an improvement programme should be implemented which gives management responsibility to users. Improvement programmes can also include the reconnection of public taps.
- Provide sufficient street lights to the settlements where it is not available at present by introducing appropriate methods such as installing solar powered street lights etc.
- Introduce appropriate solid waste collection and disposal methods by paying attention to the 3R concept (Reduce, Reuse, Recycle) of Solid Waste Management to the settlement communities where the CMC's solid waste management service is currently not available.
- Connect settlements without proper method of sewage and wastewater disposal to the city sewage system.

## SOCIAL COHESION AND COMMUNITY

- CMC can work with the private sector to finance community centres in areas with high concentrations of settlements and no community centres. Many communities have identified unoccupied land or common spaces for such centres including common toilets that are no longer in use.
- Create recreational and green spaces to improve social cohesion and health, particularly in the wards of Dematagoda, Mahawatta, Grandpass and Jinthupitiya. Work with CDCs/CBOs to programme sports/recreational activities for children in nearby parks. Such activities also complement a preventative substance abuse approach for adolescents.
- Encourage and promote small scale urban agriculture schemes, including homegardens within settlements, to create green spaces, improve nutrition, reduce expenditure and promote food sovereignty. These programmes should also provide technical and financial support to ensure access.

- The lack of community-based savings and credit programmes in the settlement communities denies access to affordable credit, leaving communities vulnerable to predatory micro-finance schemes. Community based savings and credit programmes should be encouraged in settlements.

## **SANITATION AND HEALTH**

- Improve sewage networks and replace faulty/broken/old pipes. Increase household connections to sewage networks or construct appropriate solid disposal methods particularly in settlements adjacent to canals and water bodies.
- CMC should launch a citywide rodent eradication campaign, which includes raising public awareness and regular implementation of control mechanisms. As irregular organic waste collection attracts pests, alternative solutions such as pest-proof food waste bins or community composting should be encouraged.
- Standardise garbage collection times to ensure all settlements receive collection from communal points at least every other day. Particular attention should be paid to the ward of Dematagoda where settlements report that garbage collection is irregular, leading to improper disposal.
- Mosquito breeding and a high prevalence of dengue were noted by communities. Many reported that fumigation/fogging was not conducted in the settlement, and often only conducted in adjacent middle-class neighbourhoods. As a result, mosquitos are driven into the settlement. CMC should conduct regular inspections for mosquito breeding grounds and extend fumigation to settlements.

## **RELOCATION**

- The mischaracterisation of settlements as slums and shanties or underserved settlements has been used to justify involuntary relocation of communities to high-rise apartments. The Urban Development Authority should evaluate the need for relocating settlements through a rigorous community and stakeholder consultation process and formulate a sustainable resettlement strategy paying adequate attention to energy conservation, social integration, livelihoods, safety and community preferences as well as maintenance of housing schemes, community affordability and other aspects of environmental sustainability.
- Fully upgraded settlements should be excluded from any relocation programmes since they are already served with basic services and live in permanent housing units. Any improvement in community amenities for such settlements could be decided in consultation with the communities.

- Any resettlement programme to improve the living standards of urban poor settlements should be designed to address the issues faced by most vulnerable communities in the city but pay due attention to alternative types of housing which would not disturb their social networks, livelihoods and aspirations. Relocation alternatives should be provided and decided in consultation with the community according to their needs.
- Alternatives to relocation to high-rise apartments, such as on-site upgrading of settlements and walk-up apartments should be considered . These should be conducted with participatory planning processes that include beneficiary families in the design process.

# **ANNEXURES**

## ANNEX 1: EXPLANATORY NOTES FOR THE PROPOSED INDICATORS

This explanatory note has been reviewed and updated by SEVANATHA and Colombo Urban Lab based on the inputs through a number of stakeholder meetings held for this purpose. The USS Profile of 2012 has been used as the base document for updating the characteristics and indicators identified for the Colombo Settlement Survey, 2023. During the stakeholder consultation, it was agreed to add new indicators to the original 20 indicator list by considering the changes that have taken place in the settlement characteristics since 2012. Accordingly, this survey will include 27 indicators (7 new indicators) which are grouped into five characteristics—**Land Ownership and Tenure Type, Physical Condition of Houses, Level of Basic Services, Status of Selected Socio-Economic Aspects, and Status of Social Capital**. Each indicator will be assigned a score of 5 to 1 (from best to worst) to quantify the variables of each indicator. The definitions of each indicator and related variables are provided in the following section.

### Character 1 - Land Ownership and Tenure Type

#### 01. Land Ownership of the Settlement:

'Land' is real estate property that is fixed and immovable. 'Ownership' is the legal right to use, pos-  
sess, and give away a particular plot of land. The person who has legal rights to live, and enjoy the use of, or dispose of the property is called a land owner. In Colombo, there are three types of land ownership, namely; land under state control, lands owned by the Municipality, and privately owned lands.

This indicator aims to find out whether the majority of the land is privately owned, owned by the government or unidentified. The meaning of each variable is described below:

VN	Variable	Description
1.1	Owned by the occupants	More than half of the houses in the settlement are owned by the persons who live in the houses or property and hold the title to that property (Score 5).
1.2	Government owned land	More than half of the houses in the settlement belong to a government agency (Score 4).
1.3	Municipal Council owned land	More than half of the houses in the settlement are owned by the municipal council (Score 3).
1.4	Other privately owned land	More than half of the houses in the settlement are owned by private owners or institutions (Score 2).
1.5	Unclear ownership	More than half of the houses in the settlement have no clear land ownership (Score 1).

## 02. Type of Land Tenure Right

The term 'land tenure' is derived from the Latin language. Tenure means to 'hold' or 'rights in land'. It refers to the possession rights associated with each parcel of land (ICRAF, 1985 & Zerga, 2016) or relationship among individuals with respect to land. Tenure can be legal or customary. Therefore, land tenure determines who has the right to a plot of land, for how long, and under what conditions. Tenure arrangements may be based on both official laws and policies or on cultural norms.

This indicator variable examines the type of land tenure types of the majority of HHs in communities in the city of Colombo.

VN	Variable	Description
2.1	Freehold Right	<b>More than half of HHs are having freehold rights:</b> a property that is legally 'free from hold' of any entity other than the owner. Owner has a freehold right and can utilise the land within the applicable laws of the country (Score 5).
2.2	User permit [Tenure Entitlement Card] & Government Lease.	<b>More than half of HHs are having user permit:</b> households in the settlement are living on the land plots provided under a certificate given by a public agency [E.g.: Conditional certificate/ Permit / Lease by NHDA/UDA etc.] (Score 4)
2.3	Leasehold Occupancy (Private Lease)	<b>More than half of HHs are leaseholders:</b> a situation where the HHs are occupying houses obtained on lease agreements for an agreed-period of time for specified payments. Leaseholder has the right to use the land or property but at the end of the agreement period, the title returns to the freeholder (Score 3).
2.4	Rental Occupancy	<b>More than half of HHs are tenants:</b> the property owner and the tenant legally or informally agree to rent a house for a particular period and the tenant is responsible for payment of agreed rental fee to the house owner (Score 2).
2.5	Illegal Occupancy	<b>More than half of HHs are illegal occupants:</b> a HH who is occupying a plot of land/house for which there is no legal right to use or occupy. The land may be owned by the government or private owner or no clear ownership is found but the occupancy is considered as illegal or unauthorized (Score 1).

## 03. Duration of Occupants Residing in the Settlement

The duration of the occupancy in a particular location provides an identity and stability for a HH or group of HHs. In the context of urban low-income housing, this indicator provides useful information about the families living in the settlements in the City of Colombo with regard to their social stability. In this context, the below variable indicator assesses the duration of occupants residing in the settlement over a 30 year period.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
3.1	Above 80% families are living > 30 years	More than 80% of families living in a settlement for over 30 years. The settlement is considered a very stable community (Score 5).
3.2	Above 60% - 79% families are living > 30 years	60% - 79% of families living in a settlement for over 30 years. The settlement is considered a stable community (Score 4).
3.3	Above 40%- 59% families are living > 30 years	40%- 59% of families living in a settlement for over 30 years. The settlement is considered a moderately stable community (Score 3).
3.4	Above 20%- 39% families are living > 30 years	20%- 39% of families living in a settlement for over 30 years. The settlement is considered a fairly stable community (Score 2).
3.5	Less than 19% families are living > 30 years	Less than 19% families living in a settlement for over 30 years. The settlement is considered an unstable community (Score 1).

#### **04. Rental Housing Situation in the Settlement**

Availability of rental houses in a settlement is considered a positive factor for fulfilling the housing needs of the excess families as well as migrant families to the city. It could be observed that part of a house or entire house is available for rent in many of the settlement communities. In this context, if more houses are available for rent such settlements can be identified as most appropriately located having connectivity to the city services and more attractive locations. Land owners would enjoy more benefits by way of earning additional income from the property by renting it out. In this context, the below variable indicator assesses the settlements based on the availability of rental housing.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
4.1	Above 75% housing units are occupied by rental families	Most attractive and have high connectivity to the city services (Score 5)
4.2	50% - 74% housing units are occupied by rental families	More attractive and have connectivity to the city services (Score 4)
4.3	30% - 49% housing units are occupied by rental families	Moderately attractive and connectivity to the city services (Score 3)
4.4	10% - 29% housing units are occupied by rental families	Fairly attractive and connectivity to the city services (Score 2)
4.5	less than 10% housing units are occupied by rental families	Less attractive and less connectivity to the city services (Score 1)

## Character 2: Physical Condition of Houses

### 05. Condition of the Houses:

The condition of the houses refers to the physical and structural aspects of the houses. The physical and structural conditions of a house is determined by the materials used for the construction of walls, roofs, and the floor and its durability. Accordingly, housing conditions can be categorised into permanent houses, semi-permanent houses, and temporary houses. For measuring the condition of the houses, the availability of the permanent houses in each settlement will be identified by using the following indicator variables.

VN	Indicator	Description
5.1	≥ 80% of housing units are permanent structures	Among all the houses in the settlement, more than 80% are constructed using the permanent materials (Score 5)
5.2	60% - 79% of housing units are permanent structures	Among all the houses in the settlement, 60% - 79% are constructed using the permanent materials (Score 4)
5.3	40% - 59% of housing units are permanent structures	Among all the houses in the settlement, 40% - 59% are constructed using the permanent materials (Score 3)
5.4	20% - 39% of housing units are permanent structures	Among all the houses in the settlement, 20% - 39% are constructed using the permanent materials (Score 2)
5.5	<20% of housing units are permanent structures	Among all the houses in the settlement, less than 20% are constructed using the permanent materials (Score 1)

### 06: Level of Housing Development

Most of the settlement communities who have been living in the city for a longer period (above 30 years) used to have a strong connectivity with all the basic services and therefore developed a sense of permanency in their location. This has resulted in making investment in improving their houses, particularly vertical expansion of the house by adding floors. Such additional floors provide space for extended families as well as earning additional income by renting out to those who are looking for accommodation in the city. It is expected to measure the level of housing development of settlements by using the below indicator variables.

VN	Variable	Description
6.1	More than 75% housing lots are having G+1 floor and above	Among all houses in the settlement, more than 75% and above are having G+1 floor and above (Score 5)
6.2	50-74% housing lots are having G+1 floor and above	Among all houses in the settlement, 50-74% houses are having G+1 floor and above (Score 4)
6.3	25%- 49% housing lots are having G+1 floor and above	Among all houses in the settlement, 25%- 49% houses are having G+1 floor and above (Score 3)



6.4	10 - 24% housing lots are having G+1 floor and above	Among all houses in the settlement, 10 - 24% houses are having G+1 floor and above ( <i>Score 2</i> )
6.5	< 10% housing lots are having G+1 floor and above	Among all houses in the settlement, less than 10% houses are having G+1 floor and above ( <i>Score 1</i> )

## 07. Availability of Toilet Facilities for Housing Units

Availability of toilet facilities considered whether settlements consist of individual or shared toilets. Individual toilet means it is for the personal usage by family members. It can be one family or more families living in a house.

Common toilet can be defined as one or more toilet units that are available for the use of many people. The common toilets may not be available for individual household usage unless there are specific arrangements to use by a limited number of families.

This indicator assesses the availability of toilet facilities in the settlements by using the below indicator variables.

VN	Variable	Description
7.1	For over 75% houses individual toilets are available	Over 75% of the HHs in the settlement have individually owned toilets within the house ( <i>Score 5</i> )
7.2	For 50% -75% houses individual toilets are available	50% - 75% of the HHs in the settlement have individually owned toilets within the house ( <i>Score 4</i> )
7.3	>50% of the HHs use common toilets in good condition with easy access (01 per 05 or less than 05 HHs)	The available type of toilet in the settlement is a common toilet and in good condition. An average of 05 HHs or less are using one common toilet ( <i>Score 3</i> )
7.4	>50% of the HHs use common toilets in good condition with limited access (01 per more than 05 HHs)	The available type of toilet in the settlement is a common toilet with good condition. But more than 05 HHs are using one common toilet ( <i>Score 2</i> )
7.5	Improvised toilet facilities or no toilet facilities	There are no sanitary toilets available in the settlement. Common toilets which are not in good condition are also come under this category ( <i>Score 1</i> )

### Character 3: Level of Basic Services

#### 08. Access to Potable Water Supply

Potable water is defined as water that is suitable for human consumption (i.e., for drinking, cooking, bathing and washing). Access to potable water means people who live in the settlement have individual water meter connections or to a water stand post.

Common stand post means water connection is not personalised. It is open to many people. The bill can be shared by the water users or paid by any other organisation. Access to safe drinking water contributes to enhancing the health and well-being of the families and therefore it is considered as an important indicator to be measured.

This indicator helps to identify what is the level of access to potable water in a particular settlement. The meaning of each variable is given below:

VN.	Variable	Description
8.1	Individual water meter connection for private use	More than 50% of the HHs in the settlement have own private metered water connections, which is considered as better (Score 5)
8.2	Common stand post with easy access (1per 10 or less than 10 HHs)	More than 50% of the HHs in the settlement use the common stand post for their daily usage of water. 01 common stand post available for 10 HHs or less, which is considered as good (Score 4)
8.3	Common stand posts with limited access(1 per more than 10HHs)	More than 50% of the HHs in the settlement use the common stand post for their daily use of water. 01 common stand posts available for more than 10HHs, which is considered as moderate (Score 3)
8.4	Provided by outside sources	More than 50% of the HHs in the settlement are provided treated water from outside sources either by water bowser or any other supply method, which is considered as fair (Score 2)
8.5	No any water supply system is available	More than 50% of the HHs do not have individual or common water supply connection, which is considered as poor (Score 1)

#### 09. Availability of Potable Water

This indicator investigates the availability of pipe borne water with adequate pressure over a continuous period of time (i.e. 24 hours, 16 to 24 hours, less than 16 hours etc.). The below indicator variables describe the situation as below:

<b>VN</b>	<b>Variable</b>	<b>Description</b>
9.1	Receive water for 16 - 24 hours a day with adequate pressure	For more than 50% of the HHs, water supply is available for 16 – 24 hours a day with adequate pressure, which is considered as better situation (Score 5)
9.2	Receive water for 16 - 24 hours a day with inadequate Pressure	For more than 50% of the HHs, water supply is available in the settlement for 16 – 24 hours a day, with inadequate pressure which is considered as good situation (Score 4)
9.3	Receive water for less than 16 hours a day with adequate pressure	For more than 50% of the HHs, water supply is available in the settlement for less than 16 hours with or without adequate pressure which is considered as moderate situation (Score 3)
9.4	Receive water for less than 16 hours a day with inadequate pressure	For more than 50% of the HHs, water supply is available in the settlement for less than 16 hours with or without adequate pressure which is considered as fair situation (Score 2)
9.5	Not available within the settlement	Water supply system is not available for more than 50% of the HHs in the settlement which is considered as poor situation (Score 1)

## 10. Access to Sewerage System

In urban areas, it is important to have a proper sewage disposal system to safeguard the city's environment and healthy living conditions of the city population. However, it is evident that many settlements in Colombo do not have access to the city's sewerage network due to various problems such as location limitations as well as legal and financial issues. As a result, alternative methods of sewage disposal are being used. These include, use of a common septic tank or soak pit as appropriate. In some congested places, there are no proper sewage disposal systems.

The following indicator variables are used to assess the current level of the accessibility to the sewerage system of each settlement in the city of Colombo.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
10.1	Over 50% houses are connected to the city's main sewer network	More than 50% of houses in the settlement are connected to the city's sewer network which is considered as a very good situation (Score 5)
10.2	Over 50% houses are connected to the common septic tank with access for cleaning	More than 50% of houses in the settlement share one or several common-septic tanks and those septic tanks have adequate access for gully emptier service which is considered as a good situation (Score 4)
10.3	Over 50% houses have Individual septic tank with access for cleaning	More than 50% of houses in the settlement have their own septic tanks and those septic tanks have adequate access for gully emptier service which is considered as a moderate situation (Score 3)

10.4	Over 50% houses have Individual/ Common septic tank with limited access for cleaning	More than 50% of houses in the settlement use septic tanks, but majority of those septic tanks don't have access for gully emptier service which is considered as a fair situation (Score 2)
10.5	Over 50% houses have no proper sewerage system	There is no any proper sewerage system for more than 50% of houses in the settlement which is considered as a poor situation (Score 1)

## 11. Electricity for private use

The availability of electricity for private use is considered as an important determinant of community wellbeing. The availability or unavailability of electricity is an indicator of the housing condition, legal ownership for the property, and level of income etc. To obtain electricity connection, some requirements regarding housing conditions and ownership for the property have to be proven. There may be other issues which can hinder obtaining the electricity to the settlements such as non-availability of service lines close to the settlement.

Cities are mostly active at night.. Thus, people need street lights to carry out their livelihood activities as well to ensure safe movement of people at night. Therefore, the availability of street lights is also considered in the below variable.

VN	Variable	Description
11.1	Electricity connections taken by >75% houses and with sufficient streetlights.	More than 75% of the houses have obtained electricity connection and there are sufficient street lights covering a major portion of the settlement which is considered as better situation (Score 5)
11.2	Electricity connections taken by >75% houses and without sufficient streetlights.	More than 75% of the houses have obtained electricity connection, but there aren't sufficient street lights to cover the settlement which is considered as good situation (Score 4)
11.3	Electricity connections taken by <75% houses with sufficient street lights	Less than 75% of the houses in the settlement have obtained electricity connection with sufficient street light which is considered as moderate situation (Score 3)
11.4	Electricity connections taken by <75% houses without sufficient street lights	Less than 75% of the houses in the settlement have electricity connection without sufficient street light which is considered as fair situation (Score 2)
11.5	Electricity connection not available, and the main line <u>has not come to the area</u>	There is no any electricity line passing through or closer by the settlement which is considered as poor situation (Score 1)

## 12. Municipal Solid Waste Collection Service

Availability of proper solid waste management [SWM] service is another important characteristic to determine the improved health of the inhabitants and the quality of the environment. As the settlement areas are more congested, people are not able to adopt their own waste disposal methods in their premises. In this context, the availability of municipal solid waste collection service is considered as an important characteristic.

This indicator investigates the availability of the solid waste collection service and frequency of collection by the Colombo Municipal Council.

VN	Variable	Description
12.1	Available, regular (daily/once in two days), door to door collection	The municipal solid waste collection service is available in the settlement on a regular basis (daily/once in two days), door to door collection which is considered a better situation (Score 5).
12.2	Available, regular (daily/once in two days), collection by communal points	The municipal solid waste collection service is available in the settlement on a regular basis (daily/once in two days) but collected in a communal place which is considered a good situation (Score 4).
12.3	Available, once a week regular collection (door to door or communal)	The municipal solid waste collection service is available in the settlement on once a week regular collection in door to door or communal place basis which is considered as moderate situation (Score 3)
12.4	Time unspecified (Irregular) collection	The municipal solid waste collection service is available in the settlement but the collection time is unspecified (no regular collection) which is considered a fair situation (Score 2).
12.5	Service is not available in the settlement	The Municipal solid waste collection service is not available for the settlement which is considered as poor situation (Score 1)

## 13. Condition of the Inner Access Roads

Availability of proper access roads enhances the mobility, social acceptability and the quality of life of the communities in the settlement. In this context, the condition of the available access roads can be considered as an important characteristic of the living conditions. At the same time, appropriate access roads in a settlement enables demand for municipal services such as solid waste collection, gully bowser services, and fire services, etc. Further, it is important to have a proper road network with side drains to ensure proper disposal of stormwater from the settlement. The following variables assess the condition of the available inner access roads in each settlement in the city.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
13.1	Tarred/paved roads of sufficient width and well maintained side drains	Almost all interior access roads in the settlement are constructed as tarred or paved roads with sufficient width. These roads have well maintained side drains as well which is considered as better situation (Score 5)
13.2	Tarred/paved roads of sufficient width and poorly maintained side drains	Almost all interior access roads in the settlement are constructed as tarred or paved roads with sufficient width. But the available side drains of the roads are not properly maintained which is considered as good situation (Score 4)
13.3	Tarred/paved roads of insufficient width and poorly maintained side drains	Almost all interior access roads in the settlement are constructed as tarred or paved roads but do not have sufficient width to carry out daily activities. The side drains are also poorly maintained which is considered as moderate situation (Score 3)
13.4	Narrow graveled roads without side drains	The interior access roads are gravel roads, without sufficient width and no side drains, which is considered as fair situation (Score 2)
13.5	Unimproved footpaths without proper demarcation	Most of the access roads in the settlement are footpaths, which do not have proper demarcations, which is considered a poor situation (Score 1).

#### 14. Proximity to Bus Stop from the Settlement

Public transport (bus transport) is more affordable to people living in the settlements in the city when compared to hiring three-wheelers/taxis. Therefore, the location of their settlement community in close proximity to a bus stop is an important factor contributing to reaching the services such as school, market, hospital and the workplaces. The following variables assess the location proximity to the bus stop by the communities in settlements of Colombo.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
14.1	Convenient walking distance to the bus stop (less than 100m)	The bus stop is located within < 100 meters which is considered as the most convenient walking distance for men, women and children (Score 5).
14.2	Between 100m to 250m	The bus stop is located between 100 to 250 meters which is considered a more convenient walking distance (Score 4).
14.3	Between 250m to 500m	The bus stop is located between 250 to 500 meters which is considered as a moderately convenient walking distance (Score 3).

14.4	Between 500m to 750m	The bus stop is located between 500 to 750 meters which is considered a fairly convenient walking distance (Score 2).
14.5	More than 750m	The bus stop is located > 750 meters which is considered as inconvenient walking distance (poor situation) (Score 1)

## 15. Access to Open Space and Green Space

Open space means a portion of a development site that is permanently set aside for public or private use. It can be owned by the public or private parties. Also, the purpose of the usage can be recreation and leisure.

Green Space means publicly accessible areas with natural vegetation, such as grass, plants or trees and may include built environment features. For example: community parks, neighborhood parks, and children play areas etc. In this context, these variables assess the accessibility to open space or green space by settlements in the city.

VN	Variable	Description
15.1	Available and accessible within the settlement	The open spaces and green spaces are available within the settlement which is considered as most accessible for men, women and children – Better situation (Score 5)
15.2	Available, nearest to particular settlement and accessible	The open spaces and green spaces are located near to the settlement which is considered as more accessible for men, women and children – Good situation (Score 4)
15.3	Available, but not in walkable distance	The open spaces and green spaces are not available within the walkable distance and considered as moderately accessible for men, women and children – Moderate situation (Score 3)
15.4	Available but no access for the community	The open spaces and green spaces are available within or near to the settlement and do not have access for men, women and children – Fair situation (Score 2)
15.5	Available and accessible but very far from the settlement	The open spaces and green spaces are available very far from the settlement and have access for men, women and children – Poor situation (Score 1)

## 16. School Attendance of School Going Age Children

School attendance of the children is a legally and socially accepted family responsibility in Sri Lanka. It is an important means of making the young generation a more productive and socially recognised segment in the society. In Sri Lanka, the level of school attendance of the school going age children [05 – 16 years of age] is very much higher [96%] compared to the other countries in the region. But, within different income groups and economic sectors, different levels of school attendance can be observed. Poor level of school attendance by the school going age children can be considered as a reflection of poverty of the settlement.

This indicator assesses school attendance between age groups of 5-16 years in the settlement communities in the city of Colombo.

VN	Variable	Description
16.1	≥ 90% of Children go to school	Among all the HHs in the settlement, >90% of children go to school, which is considered a better situation (Score 5).
16.2	80% - 89% of Children go to school	Among all the HHs in the settlement, 80% - 89% of the children go to school, which is considered a good situation (Score 4)
16.3	70% - 79% of Children go to school	Among all the HHs in the settlement, 70% - 79% of the children go to school, which is considered a moderate situation (Score 3)
16.4	50% - 69% of Children go to school	Among all the HHs in the settlement, 50% - 69% of the children go to school, which is considered a fair situation (Score 2)
16.5	< 50% Children go to school	Among all the HHs in the settlement, less than 50% of the children go to school, which is considered a poor situation (Score 1)

## 17. Dependency Rate of the Families

The term 'dependency' refers to a person or persons who lives with a family, above age 65 or below age 16, disabled persons, and chronically ill persons including those with HIV/AIDS etc.

This indicator investigates the percentage of population of the settlement falling within the category of dependency as described above in each settlement.



<b>VN</b>	<b>Variable</b>	<b>Description</b>
17.1	< 25% of the population in the settlement are dependents	Out of the total population of the settlement, less than 25% dependents is considered as a low dependency rate. That 25% includes elderly people over 65 years, children below 16 years of age, disabled persons and chronically ill persons, this is considered a better situation (Score 5).
17.2	25% to 30% of the population in the settlement are dependents	Out of the total population of the settlement, if 25% - 30% are dependents, this is considered a good dependency rate (Score 4).
17.3	31% to 35% of the population in the settlement are dependents	Out of the total population of the settlement, if 31% - 35% are dependents, this is considered as a moderate dependency rate (Score 3)
17.4	36% to 40% of the population in the settlement are dependents	Out of the total population of the settlement, if 36% - 40% are dependents, this is considered as a fair dependency rate (Score 2)
17.5	≥40% of the population in the settlement are dependents	Out of the total population of the settlement >40% are dependents, this is considered as an extreme dependency rate (Score 1)

## 18. Income-Level of the Households

\*Source: Anker Living Wage Reference Value Urban Sri Lanka 2022

People engage in different types of employment activities for their income earning purpose. In the settlements in Colombo, a large number of persons are daily wage workers and it is also difficult to gather realistic information about the sources of income and monthly income of the families. The survey aims to gather approximate information about income level of the majority of HHs in settlement communities through focus group discussions of the community representatives/leaders. For the purpose of deciding the monthly income level of an average urban family, the research publication by the Anker Living Wage Reference Value Urban Sri Lanka 2022 has been used.

Accordingly, a family must have a total monthly income of Sri Lankan Rupees [LKR] 70,000 to meet basic household consumption expenses. This figure was further verified at the community leaders consultation meeting held by Sevanatha. Based on the above figure, income level of households in the settlements has been considered for the purpose of assessing this characteristic. Income refers to the amount of money earned by a family during a period of one month by different means.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
18.1	≥80% HHs have more than 70,000 LKR of monthly income	80% and above households in the settlement, earn more than 70,000 LKR of income per month, to manage their monthly expenses, which is considered a better situation (Score 5).

18.2	60% to 79% HHs have more than 70,000 LKR of monthly income	60% - 79% of the households in the settlement, earn more than 70, 000 LKR of income per month to manage their monthly expenses, which is considered a good situation (Score 4).
18.3	40% to 59% HHs have more than 70,000 LKR of monthly income	40% - 59% of the households in the settlement, earn more than 70,000 LKR of income per month to manage their monthly expenses, which is considered a moderate situation (Score 3).
18.4	20% to 39% HHs have more than 70,000 LKR of monthly income	20% - 39% of the households in the settlement earn more than 70, 000 LKR of income per month to manage their monthly expenses, which is considered a fair situation (Score 2).
18.5	<20% HHs have more than 70,000 LKR of monthly income	Less than 20% of the households in the settlement earn more than 70,000 LKR of income per month to manage their monthly expenses, which is considered a poor situation (Score 1).

### 19. Recipient Families of Government Subsidies including Samurdhi and Other Benefits

Number of families who receive Samurdhi and other government benefits in a settlement is considered as an indicator to assess the level of the income of families. If the number of Samurdhi and other government benefits' recipients is very high, the income level of the families in that particular settlement will be low. If the number of Samurdhi Recipients is low, it indicates that the income level of the families in the settlement is better.

The below indicator variables assess the general income-level of the settlement communities based on the above consideration.

VN	Variable	Description
19.1	<10% of families are Samurdhi recipient families	Less than 10% families in the settlement receive Samurdhi and other government benefits which is considered as the better situation (Score 5)
19.2	10%- 19% of families are Samurdhi recipient families	10%- 19% families in the settlement receive Samurdhi and other government benefits which is considered as the good situation(Score 4)
19.3	20%- 29% of families are Samurdhi recipient families	20%- 29% families in the settlement receive Samurdhi and other government benefits which is considered as the moderate situation (Score 3)
19.4	30% - 49% of families are Samurdhi recipient families	30% - 49% families in the settlement receive Samurdhi and other government benefits which is considered as the fair situation (Score 2)
19.5	Over 50% of families are Samurdhi recipient families	Over 50% families in the settlement receive Samurdhi and other government benefits which is considered as the poor situation (Score 1)

## 20. Number of single parent-headed (mother/father/caretaker) families

A single parent is someone who is unmarried, widowed, or divorced. The single parent HH can be headed by a mother, a father, a grandparent, and an uncle, aunt or care taker. In such situations, children do not receive the affection and protection of both parents and may fall into socially unacceptable behaviour. In the long run, the family may face crucial social and economic issues and put the members of the family in a state of unsafe and poverty.

This indicator investigates the percentage of the families who are headed by a single-parent in each settlement.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
20.1	Less than 10% of families are single parent-headed families	Less than 10% of the families in the settlement are single parent-headed families. All these families are managed by a mother, a father, a grandparent, and an uncle, aunt or care taker which is considered as a better situation (Score 5)
20.2	10%- 19% of families are single parent-headed families	If 10% - 19% of the families in the settlement are single parent-headed families which is considered as a good situation (Score 4)
20.3	20%- 29% of families are single parent-headed families	If 20% - 29% of the families in the settlement are single parent-headed families which is considered as a moderate situation (Score 3)
20.4	30%- 49% of families are single parent-headed families	If 30% - 49% of the families in the settlement are single parent-headed families which is considered as a fair situation (Score 2)
20.5	Over 50% of families are single parent-headed families	If more than 50% of the families in the settlement are single parent-headed families which is considered as a poor situation (Score 1)

## Character 5: Status of Social Capital

### 21. Functioning of Community-Based Organizations (CBOs) in the Settlement

Community-based organisations (CBOs) are generally formed by nominating the representatives among the communities of a particular settlement with or without the assistance of an outside organisation. For a CBO to be formally recognized, it needs to be registered with a government organisation such as local authority, DS Office or any other organisation. With regard to settlements in Colombo City, the CMC facilitates the formation of Community Development Councils (CDCs) under the Public Health Department of CMC. The DS Office also has provision to form a community association called '*Praja Mandala*'.

In addition to these, the settlement communities have the freedom to form their own community organisation with specific objectives to serve common interest. For the purpose of this study it is considered that the functioning of active CBO would provide benefits to the community and look after the common needs of the settlement communities.

In this context, the following indicator variable assesses the level of function of the CBOs in the settlements in the city of Colombo.

VN	Variable	Description
21.1	Very actively engaged in service and community welfare works	There are one or more CBOs which are very actively engage in community service improvements or in community welfare activities which is considered as better situation of CBO functioning (Conduct monthly regular meetings, elect members on time) (Score 5)
21.2	Actively engage in service and community welfare works	There are one or more CBOs which are actively engage in community service improvements or in community welfare activities which is considered as good situation of CBO functioning (Conduct once in 2-3 months meetings, elect members on time) (Score 4)
21.3	Moderately engage in service and community welfare works	There are one or more CBOs which are moderately active in community service delivery/ improvements or in community welfare activities which is considered as moderate situation of CBO functioning (No regular meetings, but having elected members) (Score 3)
21.4	CBOs exist, but do not engage in Service and community welfare works	There are at least one or more CBOs in existence. But neither a single CBO of them engages in the service improvement or community welfare activities which is considered as fair situation of CBO functioning (Score 2)
21.5	No CBOs exist	There are no CBOs in the settlement. People do not have linkage with any of institutional body to represent for their rights and needs which is considered as poor situation of CBO functioning (Score 1)

## 22. Availability and Accessibility to a Community Centre

This indicator assesses the availability and accessibility to a community centre in a particular settlement. A Community centre is a place where people from a particular neighbourhood can use for social gathering, information sharing, and community welfare activities. Accessibility of Community Centre means people who reside in the settlement can use, easily reach or participate in the centre. In this context, this indicator variable assesses the availability and accessibility to community centres in each settlement community.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
22.1	Available in the settlement with easy accessibility	A community centre is available in the settlement and the community can use it for social gathering, information sharing, and community welfare activities. Such a situation is considered a better situation (Score 5).
22.2	Available in the settlement with limited accessibility	A community centre is available in the settlement but does not have easy accessibility. There is always a delay in reserving it. Such a situation is considered a good situation (Score 4).
22.3	Not available within the settlement, but available in a nearby settlement with easy accessibility	Community centre is not available in the particular settlement. But, available in a nearby settlement with easy accessibility that can be used for social gathering, information. Such a situation is considered a moderate situation (Score 3).
22.4	Not available within the settlement, but available in a nearby settlement with limited accessibility	Community centre is not available in the settlement, but is available in a nearby settlement with limited accessibility. Such a situation is considered as fair situation (Score 2)
22.5	Not available in the settlement and or in a nearby settlement	A community centre is not available in the settlement as well as in nearby settlements. Such a situation is considered a poor situation (Score 1).

## 23. Number of Families engage in Community Savings and Credit Programs

The Community Savings and credit program mean a micro financing activity which is managed by the community members themselves. Communities' engagement in savings and credit programs is an important determinant of people's ability to face vulnerable situations. The amount of savings owned by a family is a decisive factor to weather emergencies. Thus, a considerable coverage of a settlement by savings and credit program directly influences the wellbeing of settlement communities.

The below indicator variables assess the number of families engaged in Community Savings and Credit Programs in each settlement community in the city.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
23.1	Over 75% families are engaged in savings and credit program	More than 75% of the families in the settlement have engaged in savings and credit program which is considered a better situation (Score 5)
23.2	50% - 75% families are engaged in savings and credit Program	50% - 75% of the families in the settlement have engaged in savings and credit program which is considered a good situation (Score 4)
23.3	25%- 49% families are engaged in savings and credit program	25%- 49% of the families in the settlement have engaged, in savings and credit program, which is considered a moderate situation (Score 3)
23.4	Less than 25% families engaged in saving and credit program	More than 75% of the families do not engage in any of saving and credit program, which is considered a fair situation (Score 2)
23.5	Not available in the settlement	No any savings and credit program has been introduced to the community yet which is considered a poor situation (Score 1)

#### **24. Risk and Vulnerability in Hazard**

A situation where a community is facing risk and vulnerability is an important aspect of determining the level of wellbeing of a family or a community. This is a common experience for most of the people living in the urban poor settlements. The hazardous situations affect the social, health and economic wellbeing of the people. The sudden heavy rains and flash floods, living close to garbage dumps, destructive heavy winds [Tornados, Cyclones, Typhoons, and Storms], possible landslides and fire come under natural hazards. Seasonal epidemics and diseases come under health hazards. To determine the long-term influence of these hazards in a particular settlement, the level of risk and vulnerability conditions faced by the people in the past must be identified.

This indicator is used to measure the level of risk and vulnerability by natural hazards and man-made hazards faced by the people, within the last three years.

<b>VN</b>	<b>Variable</b>	<b>Description</b>
24.1	No risk and vulnerability	No any experience of facing any kinds of risk and vulnerability by natural hazard and man-made hazard within the last three years, which is considered a better situation (score 5)
24.2	Low risk and vulnerability	Faced some hazardous situations but less vulnerable for the community within the last three years which is considered a good situation (score 4)

24.3	Medium risk and vulnerability	Faced some hazardous situations but moderate vulnerable for the community within the last three years which is considered a medium situation (score 3)
24.4	High risk and vulnerability	Faced frequent hazardous situations and high vulnerable for the community within the last three years which is considered a fair situation (score 2)
24.5	Extremely high risk and vulnerability	Faced frequent hazardous situations and extremely vulnerable for the community within the last three years which is considered a poor situation (score 1)

## 25. Risk of facing dengue fever by the community

Prevalence of dengue fever in the city of Colombo is a common occurrence with the monsoon rain seasons experienced in each year. It is generally perceived that the low-income settlements are more prone to the dengue fever than the rest of the population due to the poor environmental conditions of the settlements. In this context, identification of communities who are facing high risk of dengue fever is important. The below indicator variables assess the level of vulnerability of dengue fever by the communities in the city of Colombo.

VN	Variable	Description
25.1	<10% of the HHs in the settlement affected by the dengue fever during the past 06 months	Among all the HHs in the settlement, less than 10% HHs were affected by the dengue fever during the past 06 months (one or more family members in one HH suffering from dengue fever is considered as one affected HH). The above situation is considered as a low risk situation (Score 5).
25.2	10% - 25% of the HHs in the settlement affected by the dengue fever during the past 06 months	Among all the HHs in the settlement, 10% - 25% HHs were affected by the dengue fever during the past 06 months (one or more family members in one HH suffering from dengue fever is considered as one affected HH). The above situation is considered as a fair risk situation (Score 4)
25.3	26% - 50% of the HHs in the settlement affected by the dengue fever during the past 06 months	Among all the HHs in the settlement, 26% - 50% HHs were affected by the dengue fever during the past 06 months (one or more family members in one HH suffering from dengue fever is considered as one affected HH). The above situation is considered as a moderate risk situation (Score 3)

25.4	51% - 75% of the HHs in the settlement affected by the dengue fever during the past 06 months	Among all the HHs in the settlement, 51% - 75% HHs were affected by the dengue fever during the past 06 months (one or more family members in one HH suffering from dengue fever is considered as one affected HH). The above situation is considered as a high risk situation (Score 2)
25.5	>75% of the HHs in the settlement affected by the dengue fever during the past 06 months	Among all the HHs in the settlement, more than 75% HHs were affected by the dengue fever during the past 06 months (one or more family members in one HH suffering from dengue fever is considered as one affected HH). The above situation is considered as an extreme risk situation (Score 1)

## 26. Level of displacement risk as perceived by the community

'Displacement' is defined as the involuntary relocation of people or businesses from their existing location. Generally, involuntary relocation takes place as a result of government implemented development programs. In urban areas, the poor or low-income people become more vulnerable when involuntary relocation programs are implemented since their livelihood activities and social networks are disturbed.

The below indicator variables attempt to identify the level of displacement risk faced by the settlement communities as perceived by the community.

VN	Variable	Description
26.1	No displacement risk as perceived by the community	There is no displacement risk for the community from their existing location which is considered as a better situation (Score 5).
26.2	Low risk of displacement as perceived by the community	There is a likely displacement risk as perceived by the community but no confirmed information received from any organisation which is considered as a good situation (Score 4)
26.3	Moderate risk as a nearest community already displaced	There is a medium risk of displacement as perceived by the community with some information received from the government which is considered as a moderate situation (Score 3).
26.4	High risk of displacement as information collected by the government	There is a high risk of displacement as perceived by the community since the government has already collected the information from the community but not informed the community about the date of displacement etc. which is considered as a high risk situation (Score 2)



26.5	Extreme risk of displacement as already identified for relocation	There is an extreme risk of displacement as perceived by the community because the relocation process has already started (Score 1).
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## 27. Payment of Rates to the Municipality

Inhabitants of a city are responsible to pay rates to the municipal council for the services they receive by the municipality. The revenue collected through municipal rates will be used for upgrading or improvement of the municipal services benefiting the city population.

If a low-income community pays rates to the municipality, it implies that the community has more advantages to prove their occupancy. At the same time, having an assessment number on a property provides a legal recognition to that property and its occupants. Therefore paying municipal rates is a socially and institutionally recognized condition of a family. In this context, the following indicator variables assess the situation of municipal rate payments by the communities of settlements in Colombo.

VN	Variable	Description
27.1	More than 75% of HHs in the settlement pay rates	More than 75% of the households in the settlement pay rates to the Municipality and they have their own assessment numbers which is considered as a better situation (Score 5).
27.2	50% - 75% of HHs in the settlement pay rates	50% - 75% of the households in the settlement pay rates to the Municipality and they have their own assessment numbers which is considered as a good situation (Score 4).
27.3	25%- 49% of HHs in the settlement pay rates	25%- 49% of the households in the settlement pay rates to the Municipality and they have their own assessment numbers which is considered as a moderate situation (Score 3).
27.4	Less than 25% of HHs in the settlement pay rates	Less than 25% of the households in the settlement pay taxes to the Municipality and they have their own assessment numbers which is considered as a fair situation (Score 2).
27.5	No rate payments	None of the households in the settlement pay taxes to the Municipality, and they don't have their own assessment numbers which is considered as a poor situation (Score 1).

## ANNEX 3: SURVEY QUESTIONNAIRE

### Colombo Settlements Survey – 2023

#### SURVEY QUESTIONNAIRE

The aim of this survey is to gather the most recent data and information on the existing shelter and living conditions of the communities in the settlements of the City of Colombo. The survey is conducted with the support of the Colombo Municipal Council by SEVANATHA and Colombo Urban Lab. The data and information collected through the survey will be published and intended to be used by the key stakeholders in urban planning and development in Sri Lanka. Furthermore, this information will be used by university students, researchers, private sector organisations, and NGOs.

This survey will be conducted through Focus Group Discussions (FGDs) by engaging community members/leaders of each settlement. The survey will take about two (2) hours to complete. The information provided will be kept strictly confidential and will be used only for the purpose of this study. The truthfulness of your answers would be of great help to this survey. We are grateful for your cooperation.

Thank You,

Yours Sincerely,

President, SEVANATHA Urban Resource Center

#### LOCATION INFORMATION OF THE SETTLEMENT & FOCUS GROUP

1.1 Settlement Type		Settlement Type - √
Slums	A	
Shanties	B	
On-site Upgraded Settlements	C	
Relocated Settlements	D	
Dilapidated Government workers. Quarters	E	
Families still living in relocated communities	F	

1.2	GPS Information	Latitude	
		Longitude	
1.3	CMC Ward No. & Name		
1.4	Name of the settlement		
1.5	If relevant, Block No.		
1.6	Address of the settlement		
1.7	No. of housing units		
1.8	No. of families		
1.9	Population		

## 2.0 THE DETAILS OF THE COMMUNITY LEADERS/ REPRESENTATIVES IN THE FOCUS GROUP

No.	Name	Sex M/F	Age	Name the CBO/s	Position	Mobile No.
1						
2						
3						
4						
5						
6						
7						

<b>Female</b>		<b>Male</b>		Total	
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**\*Note: Minimum 05 and maximum 07 community members can be included in the focus group**

### Settlement Characteristics and Indicators

No		Variable		Standard Score	Assigned Score
<b>Character 1: Land Ownership and Tenure Type</b>					
<b>3.1</b>	Land Ownership of the Settlement				
	3.1.1	Owned by the occupants	The land occupied by more than half of HHs are owned by the occupants	5	
	3.1.2	Government owned land	The land occupied by more than half of HHs are owned by the government	4	
	3.1.3	Municipal Council owned land	The land occupied by more than half of HHs are owned by the CMC	3	
	3.1.4	Other privately owned land	The land occupied by more than half of HHs are owned by the private owner	2	
	3.1.5	Unclear ownership	The land occupied by more than half of HHs are no occupied	1	
<b>3.2</b>	Type of Tenure Rights				
	3.2.1	Free hold ownership	More than half of HHs is having freehold right	5	
	3.2.2	User permit [Tenure Entitlement Card] & Government Lease.	More than half of HHs is having user permits / Government lease	4	
	3.2.3	Formal Leasehold / rent (with govt. or private party)	More than half of HHs are leaseholders/tenants	3	
	3.2.4	Informal Leasehold / Rent (with private party)	More than half of HHs are informal leaseholders/tenants	2	
	3.2.5	Illegal occupancy [Reservation Land/ Marshy Land/ Private Land]	More than half of HHs are illegal occupants	1	
<b>3.3</b>	Duration of Occupants residing in the settlement				
	3.3.1	Above 80% families are living > 30 years		5	
	3.3.2	Above 60% - 79% families are living > 30 years		4	

	3.3.3	Above 40%- 59% families are living > 30 years	3	
	3.3.4	Above 20%- 39% families are living > 30 years	2	
	3.3.5	less than 19% families are living > 30 years	1	
<b>3.4</b>	Rental Housing Situation in the Settlement			
	3.4.1	Above 75% housing units are occupied by rental families	5	
	3.4.2	50% - 74% housing units are occupied by rental families	4	
	3.4.3	30% - 49% housing units are occupied by rental families	3	
	3.4.4	10% - 29% housing units are occupied by rental families	2	
	3.4.5	less than 10% housing units are occupied by rental families	1	
<b>Character 2: Physical Condition of Houses</b>				
<b>3.5</b>	Conditions of Houses			
	3.5.1	≥ 80% of housing units are permanent structures	5	
	3.5.2	60% - 79% of housing units are permanent structures	4	
	3.5.3	40% - 59% of housing units are permanent structures	3	
	3.5.4	20% - 39% of housing units are permanent structures	2	
	3.5.5	< 20% of housing units are permanent structures	1	
<b>3.6</b>	Level of Housing Development			
	3.6.1	More than 75% housing lots are having G+1 floor and above	5	
	3.6.2	50-74% housing lots are having G+1 floor and above	4	
	3.6.3	25%- 49% housing lots are having G+1 floor and above	3	
	3.6.4	10 - 24% housing lots are having G+1 floor and above	2	
	3.6.5	< than 10% housing lots are having G+1 floor and above	1	
<b>3.7</b>	Availability of Toilet Facilities for Housing Units			
	3.7.1	For over 75% houses, individual toilets are available	5	

	3.7.2	For 50% -75% houses, individual toilets are available	4	
	3.7.3	>50% of the HHs use common toilets in good condition with easy access (01 per 05 or less than 05 HHs)	3	
	3.7.4	>50% of the HHs use common toilets in good condition with limited access (01 per more than 05 HHs)	2	
	3.7.5	Improvised toilet facilities or no toilet facilities	1	
<b>Character 3: Level of Basic Services</b>				
<b>3.8</b>	Access to Potable Water Supply			
	3.8.1	Individual connection for private use	5	
	3.8.2	Common stand post with easy access (1per 10 or less than 10 HHs)	4	
	3.8.3	Common stand posts with limited access (1 per more than 10HHs)	3	
	3.8.4	Provided by outside sources	2	
	3.8.5	No water supply system is available	1	
<b>3.9</b>	Availability of Potable Water			
	3.9.1	Receive water for 16 - 24 hours a day with adequate pressure	5	
	3.9.2	Receive water for 16 - 24 hours a day with inadequate pressure	4	
	3.9.3	Receive water for less than 16 hours a day with adequate pressure	3	
	3.9.4	Receive water for less than 16 hours a day with inadequate pressure	2	
	3.9.5	Not available within the settlement	1	
<b>3.10</b>	Access to Sewerage System			
	3.10.1	Over 50% houses are connected to the city's main sewer network	5	
	3.10.2	Over 50% houses are connected to the common septic tank with access for cleaning	4	
	3.10.3	Over 50% houses have Individual septic tank with access for cleaning	3	
	3.10.4	Over 50% houses have Individual/ Common septic tank with limited access for cleaning	2	
	3.10.5	Over 50% houses have no proper sewerage system	1	

<b>3.11</b>	Electricity for Private Use			
	3.11.1	Electricity connections taken by > 75% houses and with sufficient streetlights	5	
	3.11.2	Electricity connections taken by > 75% houses and without sufficient streetlights	4	
	3.11.1	Electricity connections taken by < 75% houses with or without streetlights	3	
	3.11.2	Electricity connections are not available, but the main line is running near by the settlement	2	
	3.11.1	Electricity connections not available, and the main line has not come to the area	1	
<b>3.12</b>	Municipal Solid Waste Collection (MSWC) Service			
	3.12.1	Available, regular (daily/once in two days), door to door collection	5	
	3.12.2	Available, regular (daily/once in two days), collection by communal points	4	
	3.12.3	Available, once a week regular collection	3	
	3.12.4	Time unspecified (Irregular) Collection	2	
	3.12.5	MSWC service is not available in the settlement	1	
<b>3.13</b>	Condition of the Inner Access Roads			
	3.13.1	Tarred/Paved roads of sufficient width and well-maintained side drains	5	
	3.13.2	Tarred/Paved roads of sufficient width and poorly maintained side drains	4	
	3.13.3	Tarred/Paved roads of insufficient width and poorly maintained side drains	3	
	3.13.4	Narrow graveled roads without side drains	2	
	3.13.5	Unimproved footpaths without proper demarcation	1	
<b>3.14</b>	Proximity to Bus stop from the settlement			
	3.14.1	Convenient walking distance (less than 100m)	5	
	3.14.2	Between 100m and 250m	4	
	3.14.3	Between 250m and 500m	3	
	3.14.4	Between 500m and 750m	2	
	3.14.5	More than 750m	1	
<b>3.15</b>	Access to Open Space and Green Space			

	3.15.1	Available and accessible within the settlement	5	
	3.15.2	Available, nearest to particular settlement and accessible	4	
	3.15.3	Available, but not in walkable distance	3	
	3.15.4	Available but no access for the community	2	
	3.15.5	Available but very far from the settlement	1	
<b>Character 4: Status of Selected Socio-Economic Aspects</b>				
<b>3.16</b>	School Attendance of School-Going Age Children			
	3.16.1	≥ 90% of Children go to School	5	
	3.16.2	80% - 89% of Children go to School	4	
	3.16.3	70% - 79% of Children go to School	3	
	3.16.4	50% - 69% of Children go to School	2	
	3.16.5	< 50% Children go to School	1	
<b>3.17</b>	Dependency Rate of the Families			
	3.17.1	< 25% of the population are dependents	5	
	3.17.2	25% to 30% of the population are dependents	4	
	3.17.3	31% to 35% of the population are dependents	3	
	3.17.4	36% to 40% of the population are dependents	2	
	3.17.5	≥ 40% of the population are dependents	1	
<b>3.18</b>	Income-Level of the Households	*Source: Anker Living Wage Reference Value Urban Sri Lanka 2022		
	3.18.1	≥ 80% HHs earn more than 70,000 LKR of monthly income	5	
	3.18.2	60% to 79% HHs earn more than 70,000 LKR of monthly income	4	
	3.18.3	40% to 59% HHs earn more than 70,000 LKR of monthly income	3	
	3.18.4	20% to 39% HHs earn more than 70,000 LKR of monthly income	2	
	3.18.5	< 20% HHs earn more than 70,000 LKR of monthly income	1	
<b>3.19</b>	Recipient Families of Government Subsidies including Samurdhi and Other Benefits			
	3.19.1	<10% of families are Samurdhi recipient families	5	



	3.19.2	10%- 19% of families are Samurdhi recipient families	4	
	3.19.3	20%- 29% of families are Samurdhi recipient families	3	
	3.19.4	30% - 49% of families are Samurdhi recipient families	2	
	3.19.5	Over 50% of families are Samurdhi recipient families	1	
<b>3.20</b>	Number of single parent (mother/father/caretaker) headed families			
	3.20.1	Less than 10% of families are single parent headed families	5	
	3.20.2	10%- 19% of families are single parent headed families	4	
	3.20.3	20%- 29% of families are single parent headed families	3	
	3.20.4	30%- 49% of families are single parent headed families	2	
	3.20.5	Over 50% of families are single parent headed families	1	
<b>Character 5: Status of Social Capital</b>				
<b>3.21</b>	Functioning of Community Based Organisations [CBOs] in the Settlement			
	3.21.1	Very actively engage in service and community welfare works	5	
	3.21.2	Actively engage in service and community welfare works	4	
	3.21.3	Moderately engage in service and community welfare works	3	
	3.21.4	CBOs exist, but do not engage in service and community welfare works	2	
	3.21.5	No CBOs exist	1	
<b>3.22</b>	Availability and Accessibility to a Community Centre			
	3.22.1	Available in the settlement with easy access	5	
	3.22.2	Available in the settlement with limited access	4	
	3.22.3	Not available within the settlement, but available in a nearby settlement with easy access	3	
	3.22.4	Not available within the settlement, but available in a nearby settlement with limited access	2	

	3.22.5	Not available in the settlement and in a nearby settlement	1	
<b>3.23</b>	No. of Families engage in Community Savings and Credit Programmes			
	3.23.1	Over75% families are engaged in savings and credit programmes	5	
	3.23.2	50% - 75% families are engaged in savings and credit programmes	4	
	3.23.3	25%- 49% families are engaged in savings and credit programmes	3	
	3.23.4	Less than 25% families are engaged in savings and credit programmes	2	
	3.23.5	Not available in the settlement	1	
<b>3.24</b>	Risk and Vulnerability for Hazards - natural hazard (flooding, etc.)			
	3.24.1	No risk and vulnerability	5	
	3.24.2	Low risk and vulnerability	4	
	3.24.3	Medium risk and vulnerability	3	
	3.24.4	High risk and vulnerability	2	
	3.24.5	Extremely high risk and vulnerability	1	
<b>3.25</b>	Risk of facing dengue fever by the community			
	3.25.1	<10% of the HHs in the settlement affected by the dengue fever during the past 06 months	5	
	3.25.2	10% - 25% of the HHs in the settlement affected by the dengue fever during the past 06 months	4	
	3.25.3	26% - 50% of the HHs in the settlement affected by the dengue fever during the past 06 months	3	
	3.25.4	51% - 75% of the HHs in the settlement affected by the dengue fever during the past 06 months	2	
	3.25.5	>75% of the HHs in the settlement affected by the dengue fever during the past 06 months	1	
<b>3.26</b>	Level of Displacement risk as perceived by the community			
	3.26.1	No displacement risk as perceived by the community	5	
	3.26.2	Low risk of displacement as perceived by the community	4	
	3.26.3	Moderate risk as a nearest community already displaced	3	
	3.26.4	High risk of displacement as information collected by the government	2	
	3.26.5	Extreme risk of displacement as already identified for relocation.	1	

<b>3.27</b>	Payment of Rates to the Municipality			
	3.27.1	More than 75% of HHs in the settlement pay rates	5	
	3.27.2	50% - 75% of HHs in the settlement pay rates	4	
	3.27.3	25%- 49% of HHs in the settlement pay rates	3	
	3.27.4	Less than 25% of HHs in the settlement pay rates	2	
	3.27.5	No rate payments	1	

**4.0 COMMUNITY EXPERIENCE ON SELECTED ASPECTS OF THE SETTLEMENT.**

Being the community representatives, focus group members will be asked to express their perception on the following themes.

It is expected to obtain 03 key problems and 03 positive aspects related to the theme.

4.1 What are the key problems & positive aspects you have experienced, in relation to proximity to the city center, workplace, and other services when considering the location of your settlement.

No	key problems	No	positive aspects
4.1.1		4.1.4	
4.1.2		4.1.5	
4.1.3		4.1.6	

4.2 What are the key problems & positive aspects you have experienced, in relation to the health aspects of the community by considering the location of your settlement.

No	key problems	No	positive aspects
4.2.1		4.2.4	
4.2.2		4.2.5	
4.2.3		4.2.6	

4.3 What are the key problems & positive aspects you have experienced, in relation to the peaceful living of the community by considering the location of your settlement.

No	key problems	No	positive aspects
4.3.1		4.3.4	
4.3.2		4.3.5	
4.3.3		4.3.6	

4.4 What are the key problems & positive aspects you have experienced, in relation to the safety and peaceful living of women and children of the community by considering the location of your settlement.

No	key problems	No	positive aspects
4.4.1		4.4.4	
4.4.2		4.4.5	
4.4.3		4.4.6	

**Names of the Survey Enumerators:**

01. .... Signature & Date: .....

02. .... Signature & Date: .....

Checked By:

.....

.....

Name of the Survey Supervisor

Name of the Survey Coordinator

.....

.....

Signature of the Survey Supervisor

Signature of the Survey Coordinator

Date .....

Date .....

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## ACKNOWLEDGEMENTS

### COLOMBO MUNICIPAL COUNCIL OFFICIALS WHO PROVIDED GUIDANCE AND REQUIRED SUPPORT FOR CSS

Mrs. J.M.Bhadranie Jayawardhana	Municipal Commissioner
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Dr. D. K. C.P. Senadheera	Medical Officer of Health – D2B
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Mrs R. D. Pathmira	Assistant Chief Health Education Officer (Acting)
Mr. Kalum Gamage	Former Assistant Chief Health Education Officer (Acting)

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**COLOMBO URBAN LAB**

Ms. Iromi Perera	Co-Founder/ Director
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