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The Government of the Hong Kong Special Administrative Region

運輸及房屋局

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24 June 2013

Clerk to LegCo Panel on Housing
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

(Attn: Ms Miranda Hon)

Dear Ms Hon,

Legislative Council Panel on Housing

Subcommittee on the Long Term Housing Strategy
Meeting on 30 May 2013

Follow-up Action

Thank you for your letter of 31 May 2013, referring Members' request for the report on the "Survey of Subdivided Units in Hong Kong" (the Survey) conducted by Policy 21 Limited. The report on the Survey is enclosed for Members' reference. Please note that the information on the profile, characteristics and living conditions of tenants living in subdivided units as enquired by Members is already included in the Survey report.

As for issues relating to Government's initiatives to increase housing land supply, Development Bureau will provide you with the information separately.

Yours sincerely,

(Original Signed)

(Vincent TANG)
for Secretary for Transport and Housing

c.c.

Secretary for Development (Attn: Mr Allen Tang)

**Report on
Survey on Subdivided Units
in Hong Kong**

**Submitted by
Policy 21 Limited
June 2013**

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EXECUTIVE SUMMARY

Background

1. “Subdivided units” (SDU) is commonly used to describe individual living quarters having been subdivided into two or more smaller units for rental. The general public is concerned that the number of SDU has been on an increase and worse still, the SDU are getting smaller and are often found in old buildings with crowded living environment, poor hygiene conditions and a lack of fire prevention facilities.
2. To estimate the number of SDU in Hong Kong and gather relevant information on tenants living in SDU, the Long Term Housing Strategy Steering Committee (Steering Committee) has commissioned Policy 21 Ltd. (Policy 21) to conduct the “Survey of Subdivided Units in Hong Kong” (The Survey) during the period from 31 January to 30 April 2013.
3. Information collected in the Survey would be used in the Long Term Housing Strategy (LTHS) Review. The objectives of the Survey are to find out :
 - (i) estimated number of SDU in Hong Kong and the total population living therein;
 - (ii) housing conditions of tenants living in SDU including the rent, unit size and amenities available;
 - (iii) problems encountered by tenants living in SDU;
 - (iv) tenants’ housing plans; and
 - (v) socio-economic characteristics of these tenants.
4. A task force (Task Force) composed of the representatives of Building Department (BD), Census and Statistics Department (C&SD), Rating and Valuation Department (RVD) and Transport and Housing Bureau was formed to monitor the progress of the Survey. Thorough discussions and consultations had been conducted in the Task Force meetings throughout the Survey.

Survey Coverage

5. The general public is very concerned about the living conditions of SDU in particular those found in old buildings. Due to fragmented ownership, lack of monitoring by the building management, relatively large floor area and relatively low rental value (as reflected by rateable value) before subdivision and hence high profit margin on conversion, there is higher chance of finding quarters in old buildings being subdivided into two or more units for rental purpose when comparing to that of new buildings. In view of this and time constraint of conducting the Survey, it is considered advisable to confine the scope of the Survey to those buildings aged 25 and above¹ so as to optimize utilization of resources and avoid causing unnecessary inconvenience to residents living in new buildings where the chance of having SDU is likely to be extremely small.
6. For the purposes of the Survey, the definition of SDU adopted is as follows: ***SDU is formed by the subdivision of individual living quarters into two or more units for rental purposes to more than one household.***

Sampling Design

7. A stratified random sampling design was adopted in the Survey in order to obtain a representative sample of quarters based on which reasonably reliable territorial estimates could be compiled on the number of SDU in the private domestic/composite buildings aged 25 and above as well as information on the characteristics of households and living conditions of tenants living in SDU.
8. The Survey covered a stratified random sample of about 18 600 buildings aged 25 and above, with the stratification factors being building age, rateable value and spatial characteristics (e.g. whether near MTR stations). A total of 1 860 buildings were fully or partially enumerated during the period from 31 January to 30 April 2013, accounting for 10% of the total number of buildings aged 25 and above. The enumerated buildings were distributed throughout all districts in Hong Kong. By visiting all quarters in the buildings sampled and interviewing as far as practically possible householders living there, attempts were made in the Survey to identify quarters with SDU.

¹ A supplementary survey in permanent private domestic/composite buildings aged below 25 years has been conducted and the result is illustrated in Appendix 1.

Estimated Number of SDU

9. A ratio estimation method was adopted to derive estimates of the number of quarters with SDU and number of SDU, using independent estimates on the number of buildings/quarters by building age, rateable value and spatial characteristics. Based on information obtained from field visits and interviews conducted, the estimated percentage of quarters in permanent private domestic buildings aged 25 and above with SDU was 3.0%. It is estimated that there were 18 800 quarters with SDU.
10. On average, quarters with SDU were subdivided into 3.6 SDU. By adopting the ratio estimation method, it is estimated that there were **66 900 SDU**. The lower limit and upper limit of the estimated number of SDU, at 95% Confidence Interval, were 53 000 and 80 800 respectively. There were 33 300 SDU in Kowloon. On the Hong Kong Island and in New Territories West, there were respectively 16 000 and 14 100 SDU. The remaining 3 500 SDU were located in New Territories East.
11. It is estimated that 66 900 domestic households were living in SDU. It is also estimated that there were **171 300 persons living in SDU**, accounting for 2.4% of the total population in Hong Kong. In Kowloon, there were 81 600 persons living in SDU (accounting for 3.8% of the total population living in Kowloon). On the Hong Kong Island and in New Territories West, there were 37 800 and 45 500 persons living in SDU (3.0% and 2.3% respectively). In New Territories East, there were 6 400 persons living SDU (0.4%).

12. The estimated number of SDU in private domestic units aged 25 and above is summarized below:

	Estimated number of quarters with SDU	Estimated number of SDU ²	Estimated number of persons living in SDU ³
Hong Kong Island	4 500	16 000	37 800
Kowloon	9 300	33 300	81 600
New Territories East	1 100	3 500	6 400
New Territories West	3 900	14 100	45 500
Total	18 800	66 900	171 300

Household Characteristics of SDU

13. Small households predominated: 27.1% one-person households, 26.2% 2-person households, 20.7% 3-person households, 13.6% 4-person households and 11.6% households with 5 or more persons.
14. 13.7% of households living in SDU were CSSA recipients. Among the non-CSSA households living in SDU, their household employment income per capita was about \$5,490.
15. 88.2% of households were living in SDU with observable physical partitions (concrete or wooden), that were used to subdivide the quarters into two or more smaller units and with the corridors built inside these quarters primarily for access to streets or staircases. 11.6% and 0.2% of households respectively were living in cubicle apartments and bedspace apartments.

² The estimated number of SDU is based on the working definition specified in paragraph 6.

³ The estimated number of persons living in SDU is compiled by the data collected from the survey.

Demographic Characteristics of Households Living in SDU

16. Information on the demographic characteristics of household members living in SDU is summarized below.

Sex		Economic activity status	
Female	45.6%	Economically active	56.8%
Male	54.4%	Economically inactive	43.2%
Age		Length of residence in Hong Kong	
0-14	12.1%	New arrivals	35.4%
15-24	12.4%	Not new arrivals	64.6%
25-34	9.4%		
35-44	26.3%	Educational level	
45-54	15.3%	Primary or below	25.3%
55-64	16.2%	Secondary	66.1%
65 or above	8.3%	Tertiary	8.6%

Characteristics of SDU

17. Based on reports by households living in SDU, 55.4% of households were living in SDU with an area of around 70 - 139 square feet and 10.8% were living in SDU with an area below 70 square feet. The average area of SDU per capita was around 67.6 square feet for all households living in SDU. The Survey results show that many households were living in overcrowded environment.
18. Although most SDU had facilities like windows, independent electricity meter, fresh water supply and toilet, there were still 45.7% households living in SDU that did not have both toilet and kitchen or cooking area ⁴ inside the SDU.
19. For all households living in SDU, on average, the rental of SDU per month was around \$3,790 and the monthly rental per square foot was around \$29.1. The rental of SDU increased when the household size increased. 41.7% of households living in SDU indicated that the rent was increased in the past year and the monthly rental on average increased by about \$542.

⁴ A kitchen or cooking area is a designated place equipped with (i) a sink with running water and (ii) cooking appliance.

20. The median rent to income ratio was 29.2% for all households living in SDU which was higher than the median rent to income ratio for all households living in private residential flats (25.7%) in Hong Kong.⁵

Conditions of Buildings and SDU

21. Since enumerators do not possess the skills and professional knowledge to assess the conditions of buildings and SDU, information on the conditions of buildings and SDU was based on the perception of households living in SDU. The perceived conditions of buildings and SDU from households living in SDU were diverse. With regard to the extent of congestion in the SDU, about half of households living in SDU were dissatisfied. Besides, about half of households living in SDU indicated that they had encountered problems related to their SDU/buildings such as water seepage, concrete cracking, messy electrical wiring and exposed reinforcement. The Survey results also show that quite a number of households were dissatisfied with the conditions of buildings where they were living especially the hygiene and law and order situations.
22. On the whole, 57.6% of households living in SDU considered the general conditions of the SDU as average and a further 28.0% were satisfied (satisfied: 27.8%, very satisfied: 0.2%) with the general conditions of the SDU. Still 14.4% were dissatisfied (dissatisfied 8.5%, very dissatisfied: 5.9%) the general conditions in the SDU.

Worries and Problems Faced by the Households Living in SDU

23. 46.8% of households living in SDU had worries about relocation to other housing units. 34.2% encountered financial problems and 30.3% had worries on the conditions of their current residence (e.g. water seepages and hygiene conditions). 12.5% and 11.5% encountered children's academic problems and health problems respectively.

⁵ 2011 Population Census Main Report: Volume I published by C&SD in November 2012, p.171.

Housing Needs

24. The major reasons for households to choose living in SDU were convenience of travelling to/from work or study (64.1%), lower rental of SDU (compared with the rent of whole quarters) (49.1%) and financial difficulties of households (28.6%). Other reasons were lack of space to live with parents/relatives (6.5%) and family problems (4.4%) as the new couples preferred to move out from the parents' residence after marriage and some could only afford the rent of SDU.
25. 52.6% of households living SDU indicated that they had not moved home in the past three years whereas 47.4% had moved home in the past three years. On average, the duration of stay at the current SDU was about 57 months for all households.
26. 49.6% of households living in SDU had applied for public housing. Among them, 97.1% were on the waiting list, 2.7% did not meet the criteria and 0.2% had accepted the offer and would soon move to public housing. 50.4% of households living in SDU had not applied for public housing. The reasons for not applying were "household income exceeds upper limit of eligibility" (49.0%), "not familiar with the process" (19.3%) and "not residing in Hong Kong for 7 years" (15.1%).
27. All in all, it is estimated that there were 66 900 SDU where 171 300 persons were living inside. The Survey results reflect that many households were living in overcrowded environment without all the essential facilities, namely toilet and kitchen or cooking area. Analysed by whether essential facilities are available inside the SDU, it is estimated that there were 30 600 SDU where any one of these essential facilities (kitchen or cooking area / toilet / water) is not available inside the SDU, accounting for 45.7% of total estimated SDU. These 30 600 SDU should require particular attention.

CHAPTER 1 | INTRODUCTION

1.1 Background

- 1.1.1 "Subdivided units" (SDU) are not defined under the Buildings Ordinance (BO). The term is commonly used in the community when referring to cases where a domestic unit is subdivided into two or more smaller units for rental. Each of these smaller units usually has its own toilet. Some even have their own cooking areas. If the sub-division works do not violate any related legislation, for example, the BO and its subsidiary legislation, they are not illegal.⁶
- 1.1.2 According to the Buildings Department (BD), subdivision of a flat into the commonly-known SDU generally refers to the subdivision of a flat as shown on the original approved plan of a building into two or more individual rooms. The associated building works commonly involve the removal of the original non-structural partition walls, erection of new non-structural partition walls, installation of new toilets and kitchens, alteration or addition of internal drains, thickening of floor screeding to accommodate the new/diverted drain pipes, addition of door openings or ventilation openings, etc. The building safety and environmental hygiene may be adversely affected if these associated building works are not properly carried out, including addition of unauthorized door openings which contravene the regulations on means of escape, additions of openings for ventilation affecting the integrity of fire resisting construction, improper drainage works causing water seepage, and overloading of the building due to addition of non-structural partition walls and thickened floor screeding.⁷
- 1.1.3 The general public is very concerned with the living conditions of SDU after the Fa Yuen Street Fire. Given the crowded living environment, poor hygiene conditions and lack of fire safety facilities in many old buildings, SDU are prone to fire accidents. The general public is also aware that the number of SDU has been on an increase and worse still, the SDU are getting smaller and with poorer living environment.

⁶ Legislative Council – 7 November 2012 Official Record of Proceedings, p.1490.

⁷ Website of Buildings Department: Frequently Asked Questions – Subdivision of a flat (Subdivided units).

- 1.1.4 A number of organizations have conducted studies to evaluate the number and conditions of SDU in some districts in recent years. To estimate the number of SDU in Hong Kong and gather relevant information on tenants living in SDU, the Long Term Housing Strategy Steering Committee (Steering Committee) has commissioned Policy 21 Ltd. (Policy 21) to conduct the “Survey of Subdivided Units in Hong Kong” (The Survey) which should be completed and reported to the Steering Committee within 4 months.
- 1.1.5 A task force (Task Force) composed of the representatives of BD, Census and Statistics Department (C&SD), Rating and Valuation Department (RVD) and Transport and Housing Bureau was formed to monitor the progress of the Survey. Thorough discussions and consultations had been conducted in the Task Force meetings throughout the Survey.

1.2 Objectives

1.2.1 Information collected in the Survey would be used in the LTHS Review. The objectives of the Survey are to find out :

- (i) estimated number of SDU in Hong Kong and the total population living therein;
- (ii) housing conditions of tenants living in SDU including the rent, unit size and amenities available;
- (iii) problems encountered by tenants living in SDU;
- (iv) tenants' housing plans; and
- (v) socio-economic characteristics of these tenants.

1.3 Report Structure

- 1.3.1 This report consists of five chapters presenting the findings of the Survey conducted during the period from 31 January to 30 April 2013.
- 1.3.2 Chapter 1 states the background and objectives of the Survey. Chapter 2 of this report outlines the survey methodology. Chapter 3 gives the estimation of the number of SDU in private domestic domestic/composite buildings aged 25 and above in Hong Kong and Chapter 4 gives the survey findings on the characteristics of households and housing conditions of tenants living in SDU. Chapter 5 gives the conclusion of the Survey.
- 1.3.3 In response to the Steering Committee members' request raised at the meeting on 9 May 2013 and to test the hypothesis that few SDU occur in newer buildings, a supplementary survey (Supplementary Survey) was conducted within some 10 days in mid May 2013 on permanent private domestic/composite buildings aged 24 and below in Hong Kong. The result is illustrated in Appendix 1.
- 1.3.4 Appendix 2 highlights the results of the feasibility study on industrial buildings.
- 1.3.5 Owing to rounding, there may be a slight discrepancy between the sum of individual items and the total as shown in the tables.

CHAPTER 2 | SURVEY METHODOLOGY

2.1 *Survey Coverage*

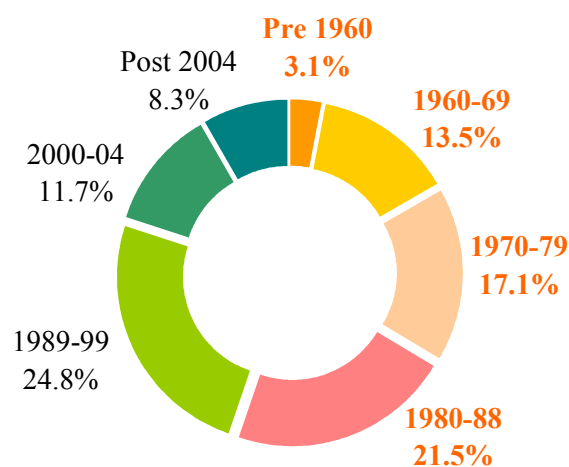
- 2.1.1 The general public is very concerned about the living conditions of SDU, in particular those located in old buildings without having any form of building management such as building management bodies or owners' corporations. Due to fragmented ownership, lack of monitoring by the building management, relatively large floor area and relatively low rental value (as reflected by rateable value) before subdivision and hence high profit margin on conversion, there is higher chance finding quarters in old buildings being subdivided into two or more units for rental purpose when comparing to that of new buildings. In view of this and time constraint of conducting the Survey, it is considered advisable to confine the scope of the Survey to those buildings aged 25 and above⁸ so as to optimize utilization of resources and avoid causing unnecessary inconvenience to residents living in new buildings where the chance of having SDU is likely to be extremely small.
- 2.1.2 The Survey covers *permanent private domestic/composite buildings built on or before 1988 (i.e. at least 25 years ago)*, excluding village houses.
- 2.1.3 According to Hong Kong Property Review 2013 published by RVD⁹, the total number of private domestic units¹⁰ was 1 117 900 units as at end 2012 and the chart below shows the distribution of private domestic units by age. There were roughly 616 700 private domestic units built on or before 1988, accounting for about 55.2% of all private domestic units in Hong Kong.

⁸ A survey approach would be adopted and illustrated in Appendix 1 to estimate the number of SDU in permanent private domestic/composite buildings built in or after 1989.

⁹ The Hong Kong Property Review 2013 published by Rating and Valuation Department, p.16.

¹⁰ Private domestic units include domestic units with an exclusive cooking area, bathroom and toilet, but do not include village houses, quarters held by the People's Liberation Army, quarters attached to premises of utility companies, dormitories (including student dormitories in educational institutes), quarters held by the Hospital Authority, hotels and hostels.

Chart 1: The distribution of private domestic units by age



2.1.4 Among the 616 700 private domestic units built in or before 1988, over one-third were located in Kowloon (38.8%) and on Hong Kong Island (37.2%). The remainder came from New Territories West (15.3%) and New Territories East (8.7%).

Table 2: The distribution of buildings and quarters by four regions

	Number of buildings built in or before 1988 ¹¹	Number of quarters built in or before 1988 ¹²
Hong Kong Island	5 900	229 700
Kowloon	6 800	239 400
New Territories East	3 100	53 600
New Territories West	2 800	94 000
Total	18 600	616 700

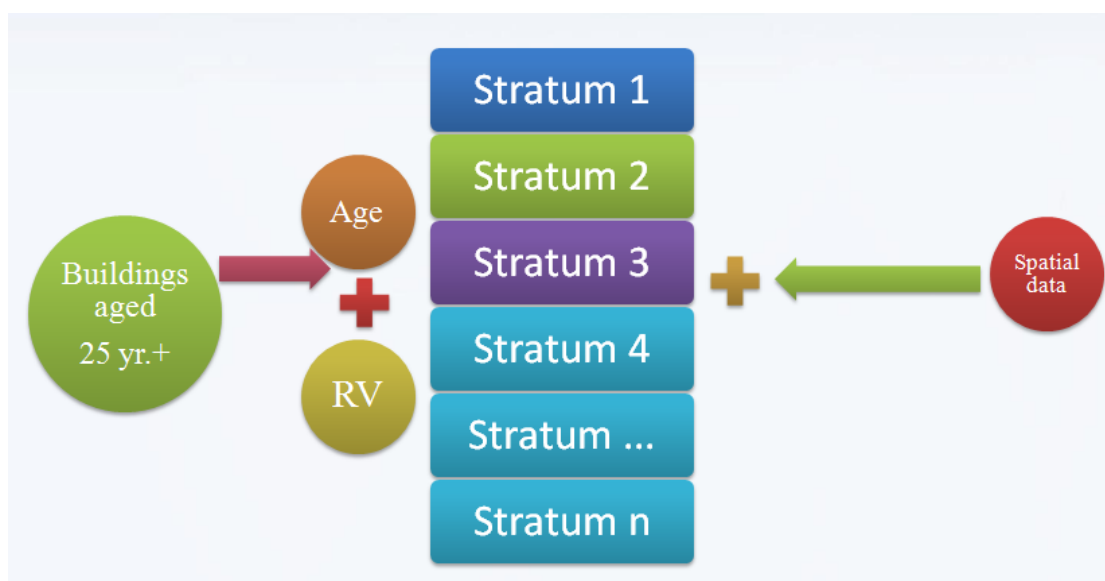
¹¹ The total number of buildings is provided by BD.

¹² The total number of quarters is based on the database provided by RVD.

2.2 *Sampling Design*

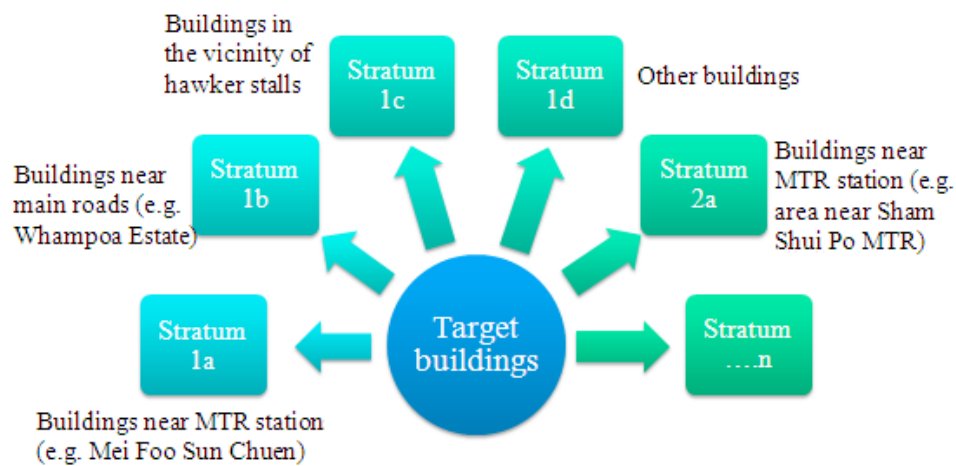
- 2.2.1 A stratified random sampling design was adopted in the Survey in order to obtain a representative sample of quarters based on which reasonably reliable territorial estimates could be compiled on the number of SDU in the private domestic/composite buildings aged 25 and above as well as information on the characteristics of households and living conditions of tenants living in SDU. Replication was adopted to facilitate the control of the effective sample size.
- 2.2.2 The Survey covered a stratified random sample of about 18 600 buildings aged 25 and above, with the stratification factors being building age, rateable value and spatial characteristics (e.g. whether near MTR stations). Sample selection was conducted systematically with the list of buildings sorted by districts such that the sample so chosen was distributed across different districts.
- 2.2.3 A two-stage stratified sampling design was adopted. All buildings aged 25 and above were divided into strata (1 to 115) according to the following criteria:
- (i) building age and rateable value (RV); and
 - (ii) spatial characteristics: in vicinity of hawker stalls and near MTR station/main roads.

Diagram 3: Stratification factors



- 2.2.4 In the first stage, sufficient number of buildings within a stratum was randomly sampled. The assumption is that the prevalence of subdivided units is related to the stratification factors namely building age, rateable value and spatial data, such that there would be high homogeneity within the stratum and higher heterogeneity between strata.

Diagram 4: Illustration of the strata



2.2.5 The Geographic Information System (GIS) was used to identify “buffers” covering buildings sharing similar spatial characteristics such as near MTR stations, near traffic main roads and near hawker stalls, etc.¹³

Map 5: GIS demonstration of target buildings located near MTR station



¹³ With reference to the paper of “Galway et al.: A two-stage cluster sampling method using gridded population data, a GIS, and Google Earth™ imagery in a population-based mortality survey in Iraq. International Journal of Health Geographics 2012 11:12”.

2.2.6 An advanced spatial statistics tool, namely Hot Spot Analysis,¹⁴ was used to analyse hot spots of buildings and a geo-processing tool, Multiple Ring Buffer,¹⁵ was used to generate in ArcGIS buffers at a resolution of say 50 meters, 100 meters and 150 meters.

Map 6: GIS demonstration of Multiple Ring Buffer of target buildings located near MTR station



¹⁴ Hot Spot Analysis is one of the spatial cluster analyses which search for dense concentrations of events/incidents. Locations with the most number of incidents are defined as “hot spots” which are the most intuitive type of cluster involving the number of events/incidents occurring at different locations.

¹⁵ Multiple buffer rings creates multiple buffers at specified distances around the input features. These buffers can optionally be merged and dissolved using the buffer distance values to create non-overlapping buffers.

- 2.2.7 About 2 000 buildings in total were randomly selected from permanent private domestic/composite buildings built on or before 1988, (i.e. at least 25 years ago). All quarters in those randomly selected buildings were visited. About one-eighth of the buildings (i.e. 253 buildings)¹⁶ in different districts were sampled and all households therein were included in the detailed enquiry while the remaining seven-eighths of buildings (i.e. 1 747 buildings) were only subject to a simple enumeration on basic information. Two sets of questionnaires, namely a “Long Questionnaire” and a “Short Questionnaire” were used.
- 2.2.8 For the Long questionnaire, one household was randomly selected from the sampled quarters which might contain more than one SDU and/or shared by more than one household. As the probability of selection of the respondents is different due to different number of households in the selected SDU and different number of SDU in the buildings selected, weighting is required in compiling summary statistics from data collected from both Long questionnaire and Short questionnaire. The weight used is the reciprocal of the probability of selection for individual sampling units.

¹⁶ In determining the sample design for detailed enquiry, due consideration was given to cost, precision and operational feasibility.

2.3 *Survey Questionnaire*

- 2.3.1 Due to time constraint of conducting the Survey, it is considered advisable to adopt two sets of questionnaires, namely the “Long Questionnaire” and the “Short Questionnaire” so as to optimize the utilization of resources and to avoid causing unnecessary inconvenience to residents living in the sampled buildings.
- 2.3.2 To test the effectiveness of the survey questionnaires and operational procedures, a pilot study covering a sample of 30 tenants living in SDU had been conducted. In the process, each part of the questionnaires was fully tested.
- 2.3.3 The Short Questionnaire, which was used in the simple enumeration, covered some basic information such as household size, tenure accommodation, area, rental, facilities and household income. A total of 5 900 interviews were conducted using the Short Questionnaire.
- 2.3.4 The Long Questionnaire which was used in the detailed enquiry, included not only those questions covered in the Short Questionnaire, but also additional questions related to socio-economic characteristic of the household members, households’ perceived views on conditions of buildings, their neighborhood relationship and problems encountered. A total of 542 interviews were conducted using the Long Questionnaire.
- 2.3.5 For the households sampled, the head of household or a household member knowledgeable about the conditions of the housing units and particulars of household members was interviewed.

2.4 *Data Collection Method and Quality Assurance*

- 2.4.1 Data were collected by face-to-face interviews, with enumerators visiting all households in quarters with SDU. At the start of the Survey, notification letters were given to the sampled households to explain the purpose of the Survey.
- 2.4.2 Enumerators visited households in pairs and conducted the interviews with the use of Computerized Assisted Personal Interviewing (CAPI) system. Field managers and supervisors had to accompany the enumerators and observe their work during the fieldwork period and provide them with technical support and advice whenever necessary.
- 2.4.3 To ensure the credibility of the collected data, a suite of quality control measures had been implemented. All enumerators were trained before they were assigned to conduct the fieldwork. Briefing session and de-briefing sessions were held during the fieldwork period. Fieldwork procedures and interview questions had been fully explained to the enumerators in order to enhance their understanding on the project and to facilitate their operation of the interviews. Two weeks after the briefing session, de-briefings were held to address problems encountered by the enumerators. Throughout the de-briefing sessions, enumerators, field supervisors and field managers shared their experiences and exchanged views on how to tackle different situations effectively.
- 2.4.4 To ensure that enumerators had followed the proper fieldwork procedures, independent quality checkers revisited a random sample of the households to verify the key information recorded on the completed questionnaires.
- 2.4.5 Enumerators submitted completed questionnaires to their field managers and field supervisors on a weekly basis. A preliminary check was done on-the-spot to ensure that all the questionnaires were properly completed. All completed questionnaires were subject to more thorough computer-assisted data validation upon submission.

2.5 Enumeration Results

2.5.1 Fieldwork of the Survey was conducted during the period from 31 January to 30 April 2013. A total of 2 000 buildings were randomly selected from permanent private domestic/composite buildings built on or before 1988 (i.e. at least 25 years ago). Among the sampled buildings, 26 buildings were considered invalid as they had been demolished. Out of the 1 974 valid buildings, 1 860 buildings were fully or partially enumerated. Detailed enumeration results of the Survey are shown in the table below.

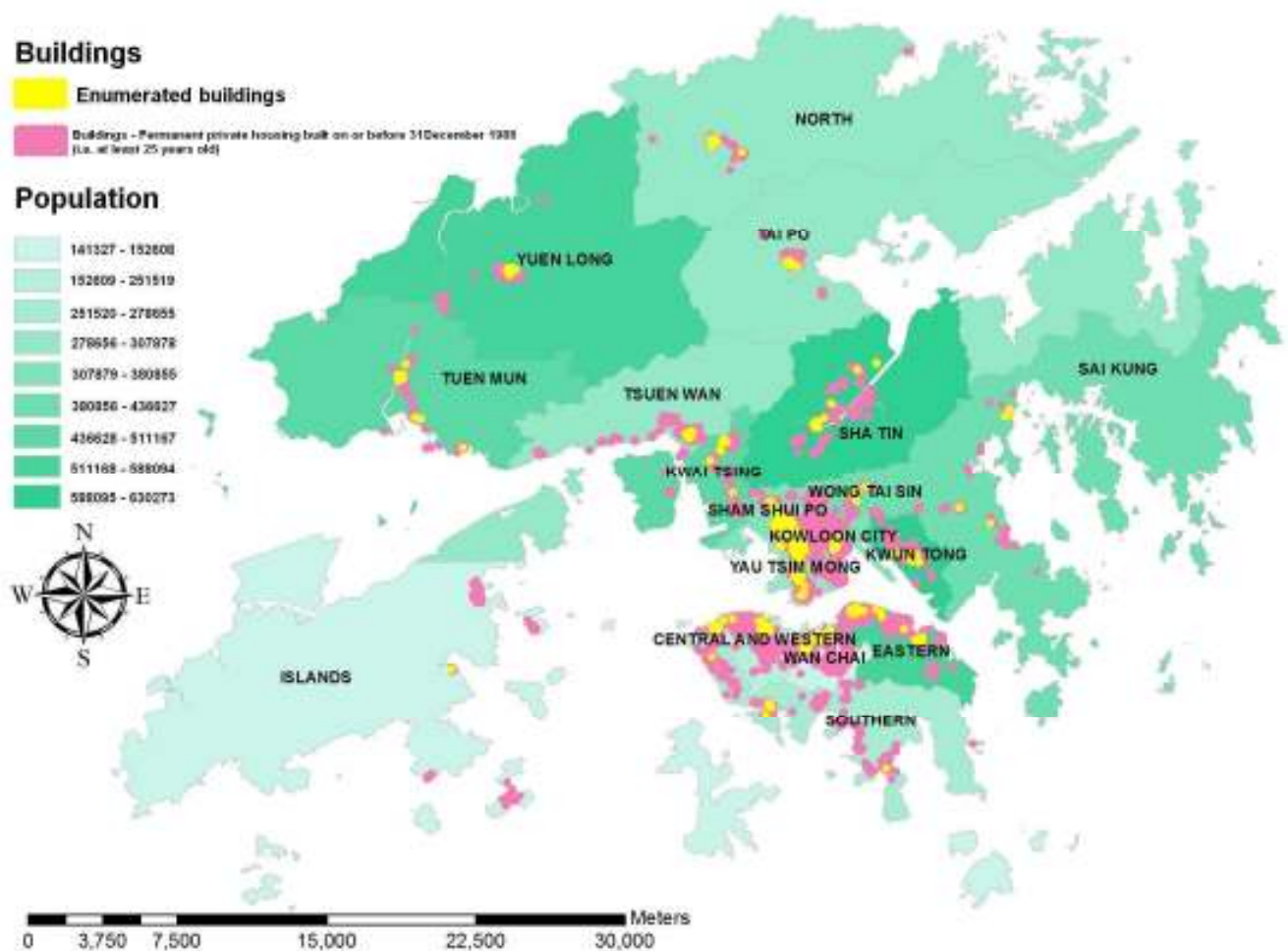
Table 7: The enumeration results

	Number	%
Total number of sampled buildings	2 000	-
Number of buildings demolished	26	-
Number of valid buildings	1 974	100.0%
Number of refusals (interviewers not allowed to enter buildings)	114	5.8%
Number of buildings enumerated	1 860	94.2%
<i>Fully enumerated</i>	1 807	
<i>Partially enumerated (interviewers not allowed to enter building after completing several interviews)</i>	53	
Number of households interviewed		
<i>Short Questionnaire</i>	5 900	
<i>Long Questionnaire</i>	542	

2.5.2 The map below shows the distribution of permanent private domestic/composite buildings aged 25 and above and 1 860 enumerated buildings indicated by pink and yellow respectively.

2.5.3 It is worth noting that permanent private domestic/composite buildings aged 25 and above concentrated in Kowloon and on Hong Kong Island. By adopting the two-stage stratified sampling design mentioned above, the enumerated buildings were distributed throughout all districts in Hong Kong.

Map 8: The distribution of buildings



2.6 *Limitations*

- 2.6.1 Although the final results are believed to be as accurate as practically possible through the implementation of a thorough data validation and processing procedures, there are still sampling errors and non-sampling errors.
- 2.6.2 Estimates derived from different samples would differ from each other. Sampling error is measured by the standard error depending on the sample size, the sampling method and the intrinsic variability of the characteristic concerned. The “Jackknife Repeated Replications Method” was used to estimate the standard error in the Survey.¹⁷ The 95% confidence interval of the sample estimate,¹⁸ with its upper and lower limits given respectively by about 1.96 times the standard error above and below the sample estimate, was adopted.
- 2.6.3 Despite the introduction of various quality assurance measures, non-sampling errors might arise due to interviewer errors (e.g. wrongly entering a certain code into the computer) and respondent errors (wrongly recalling events or purposive misreporting). The measures outlined in Chapter 2.4 should facilitate early identification of such errors, so that remedial action could be taken.

¹⁷ 2011 Population Census Main Report: Volume II published by C&SD in November 2012, p.49.

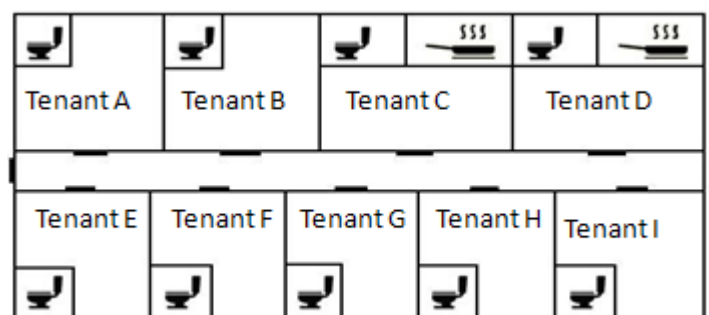
¹⁸ If similar confidence intervals were constructed for each of the 100 different samples of the same size selected using the same sampling method, one would expect that 95 of them would cover the population parameter.

CHAPTER 3 | TERRITORIAL ESTIMATION

3.1 *Definition of SDU*

- 3.1.1 SDU is commonly used in the community where a domestic quarter is subdivided into two or more smaller units for rental. Generally, the original non-structural partition walls are removed while the new ones are erected, new toilets and kitchens are installed, and internal drains are added or altered. These works may cause adverse impacts on the safety and hygiene condition of the buildings. In recent years, the building and fire safety problems associated with SDU have become a subject of public concern.
- 3.1.2 Most SDU are found in old residential buildings. Most SDU have its own toilet and/or its own cooking areas. In these SDU, observable physical partitions (concrete or wooden) are usually used to subdivide the quarters into two or more smaller units with the corridors built inside these quarters primarily for access to streets or staircases. The diagram below shows a typical SDU.

Diagram 9: Example (1) of SDU



- 3.1.3 Some SDU are created by reconstructing the original structures. An example is illustrated below showing that an additional opening on structural wall has been created for the quarters on 3/F whereas such opening does not exist for the quarters immediately above on 4/F. The additional construction works may overload the building and adversely affect the structure of the buildings.

Diagram 10: Example (2) of SDU

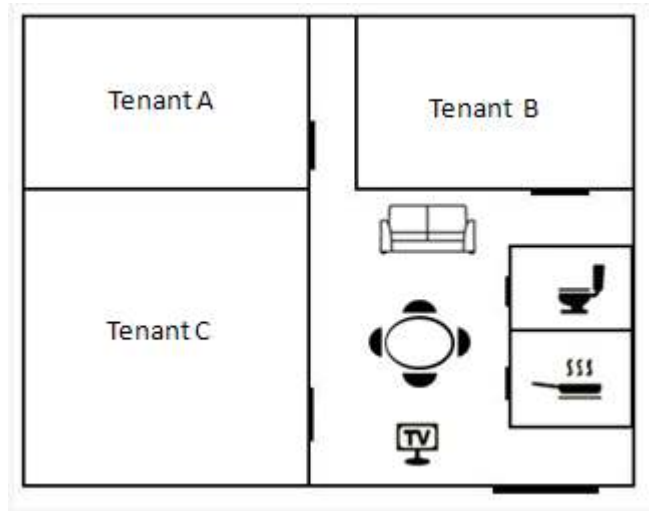


- 3.1.4 For some SDU, there is no toilet and/or cooking area and the tenants or sub-tenants have to share the toilets and other facilities with other tenants within the quarters. These types of SDU are known as cubicle apartments or bedspace apartments. Cubicle apartments are not defined in the BO. They are generally subdivided by wooden cubicles of simple construction and commonly found in old buildings. Some cubicles have openings at the top of the wooden partitions for ventilation purpose but some cubicles have partitions reaching the ceiling without opening. Bedspace apartments, commonly known as “caged homes”, are used as sleeping accommodation for individuals. Bedspace apartments with 12 or more bedspaces are regulated under the Bedspace Apartments Ordinance.¹⁹
- 3.1.5 For cubicle apartments and bedspace apartments, it is uncertain whether there is any new physical partition inside the quarters even after entering the quarters and

¹⁹ The operation of bedspace apartments is under the regulation of the Bedspace Apartments Ordinance (Cap 447) (BAO) to ensure the safety of occupants and other users of the premises.

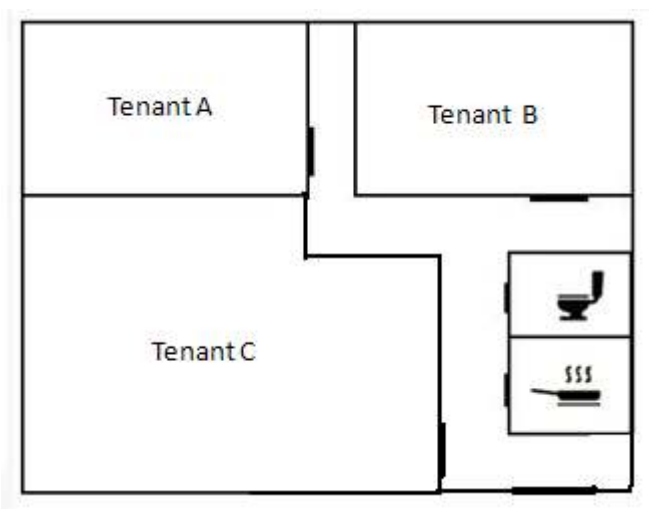
conducting interviews with the householders concerned. A typical example is illustrated below showing three tenants living in the quarters and sharing facilities in the living room, toilets and cooking area.

Diagram 11: Example (3) of SDU



3.1.6 It is worth noting that some owners may reconstruct the quarters in such a manner that the living room is used as another room or expansion of existing room(s) for renting out, leaving only with the corridors for access purpose, as illustrated in the example below. The tenants have to share the toilets and cooking area. Besides, with narrow corridors inside the quarters, residents may have difficulty in escaping when a fire breaks out.

Diagram 12: Example (4) of SDU



- 3.1.7 During field visits, enumerators would first check the mail boxes to have some understanding of the distribution of quarters inside the sampled buildings. By visiting all quarters in the buildings sampled and interviewing as many householders as possible living there, enumerators would be able to identify those quarters with SDU as shown in the examples of Diagrams 9 and 10 above.
- 3.1.8 It is worth noting that it is not possible to confirm in the Survey whether partitions inside the quarters are pre-existing partitions at the time when the buildings were constructed or new partitions erected afterwards. It is because the enumerators and even tenants living there may not know the original floor plans of the quarters.²⁰ As illustrated in the examples above, the quarters are subdivided in different manner. A cubicle apartment in diagram 11 may be subsequently re-constructed in a way that corridors are built inside these quarters primarily used for access to streets or staircases, as shown in diagram 12.
- 3.1.9 In view of the above, a working definition was adopted for the Survey which took into account quarters that were shared by more than one household²¹ being tenants of the quarters as well as situations where the quarters were subdivided into two or more units.
- 3.1.10 The definition of SDU adopted in the Survey is as follows:

SDU is formed by the **subdivision** of individual living quarters into two or more units for **rental purposes to more than one household**.

²⁰ Enumerators do not possess the skills and professional knowledge to decide whether the subdivision works violate any related legislation.

²¹ A domestic household consists of a group of persons who live together and make common provision for essentials for living. These persons need not be related. If a person makes provision for essentials for living without sharing with other persons, he is also regarded as a household. In this case, the household is a one-person household.

3.2 *Ratio Estimation*

- 3.2.1 A ratio estimation method was adopted to derive estimates of the number of quarters with SDU and number of SDU, using independent estimates on the number of buildings/quarters by building age, rateable value and spatial characteristics.
- 3.2.2 Ratio estimation operates by comparing the survey sample estimate for an auxiliary variable with the known population total for the same variable in the frame. The ratio weights are given by X/x (where X is the known population total for the auxiliary variable and x is the corresponding estimate of the total based on all responding units in the sample). These weights assume that the population total for the variable of interest is estimated by the sample equally as well as the population total for the auxiliary variable is estimated by the sample.²²
- 3.2.3 The separate ratio estimator is used to estimate the ratio within each stratum and then form a weighted average of these separate estimates as a single estimate of the population ratio.
- 3.2.4 Ratio estimation would be accurate if the auxiliary variable is highly correlated with the variable of interest, i.e. the number of buildings and the number of quarters in a particular stratum. However, for smaller sample sizes within the stratum and lower correlation between the auxiliary variable and variable of interest, the gain in precision obtained from ratio estimation would be smaller.

²² Australian Bureau of Statistics, Statistical Concepts Library, "Labour Statistics: Concepts, Sources and Methods", Chapter 16 - Overview of Survey Methods, Canberra, 2001.

3.3 *Estimated Number of SDU*

3.3.1 Based on information obtained from field visits and interviews conducted in the Survey during the period from 31 January to 30 April 2013, the estimated percentages of quarters in permanent private domestic buildings aged 25 and above with SDU in New Territories West and in Kowloon were 4.1% and 3.9% respectively. The corresponding percentages were lower in New Territories East (2.1%) and on Hong Kong Island (2.0%).

3.3.2 It is estimated that there were 18 800 quarters with SDU. In Kowloon, there were 9 300 quarters with SDU accounting for 49.5% of the total number of quarters with SDU in Hong Kong. On the Hong Kong Island and in New Territories West, there were respectively 4 500 and 3 900 quarters with SDU, accounting for 23.9% and 20.7% of the total quarters with SDU. The remaining 1 100²³ were located in New Territories East, accounting for 5.9% of the total number of quarters with SDU.

Table 13: The estimated number of quarters with SDU in private domestic units aged 25 and above

	Number of private domestic units aged 25 and above ²⁴	Estimated percentage of quarters with SDU ²⁵	Estimated number of quarters with SDU
Hong Kong Island	229 700	2.0%	4 500
Kowloon	239 400	3.9%	9 300
New Territories East	53 600	2.1%	1 100
New Territories West	94 000	4.1%	3 900
Total	616 700	3.0%	18 800

²³ Since the number of private domestic units aged 25 and above in New Territories East were the lowest compared to other regions, even the estimated percentages of quarters with SDU were 2.1%, the estimated number of quarters with SDU in New Territories East was the lowest.

²⁴ The total number of quarters is derived from the database provided by RVD. It covers permanent private domestic/composite buildings built on or before 1988 (i.e. at least 25 years ago), excluding village houses.

²⁵ The ratio estimation method is adopted to derive estimates of the number of quarters with SDU and number of SDU, using independent estimates of the number of buildings/quarters by building age, rateable value and spatial characteristics.

3.3.3 The survey findings show that the number of SDU per a quarter with SDU ranged from 2 to 18. On average, quarters with SDU were subdivided into 3.6 small units on the Hong Kong Island, and in Kowloon and New Territories West. In New Territories East, the average number of small units per a quarter with SDU was 3.2, which was lower compared to other three regions.

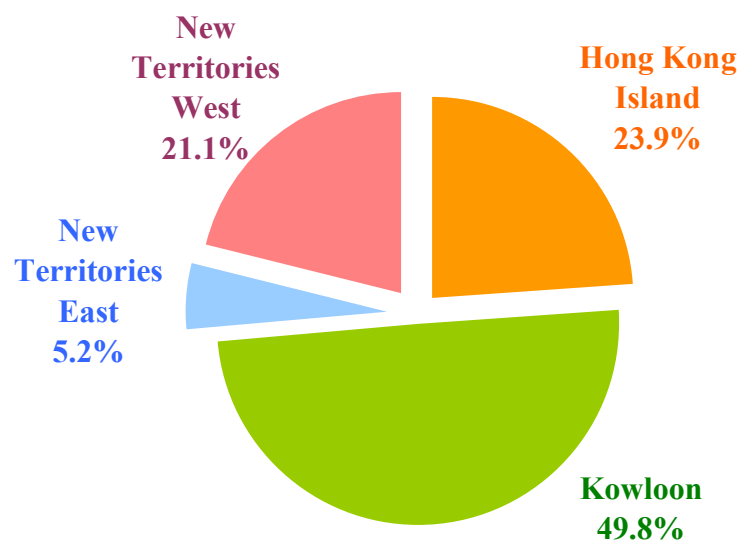
Table 14: The estimated number of SDU in private domestic units aged 25 and above

	Estimated number of quarters with SDU	Average number of SDU per quarter with SDU	Estimated number of SDU ²⁶
Hong Kong Island	4 500	3.6	16 000
Kowloon	9 300	3.6	33 300
New Territories East	1 100	3.2	3 500
New Territories West	3 900	3.6	14 100
Total	18 800	3.6	66 900

²⁶ The estimated number of SDU is based on the working definition mentioned in Chapter 3.1.

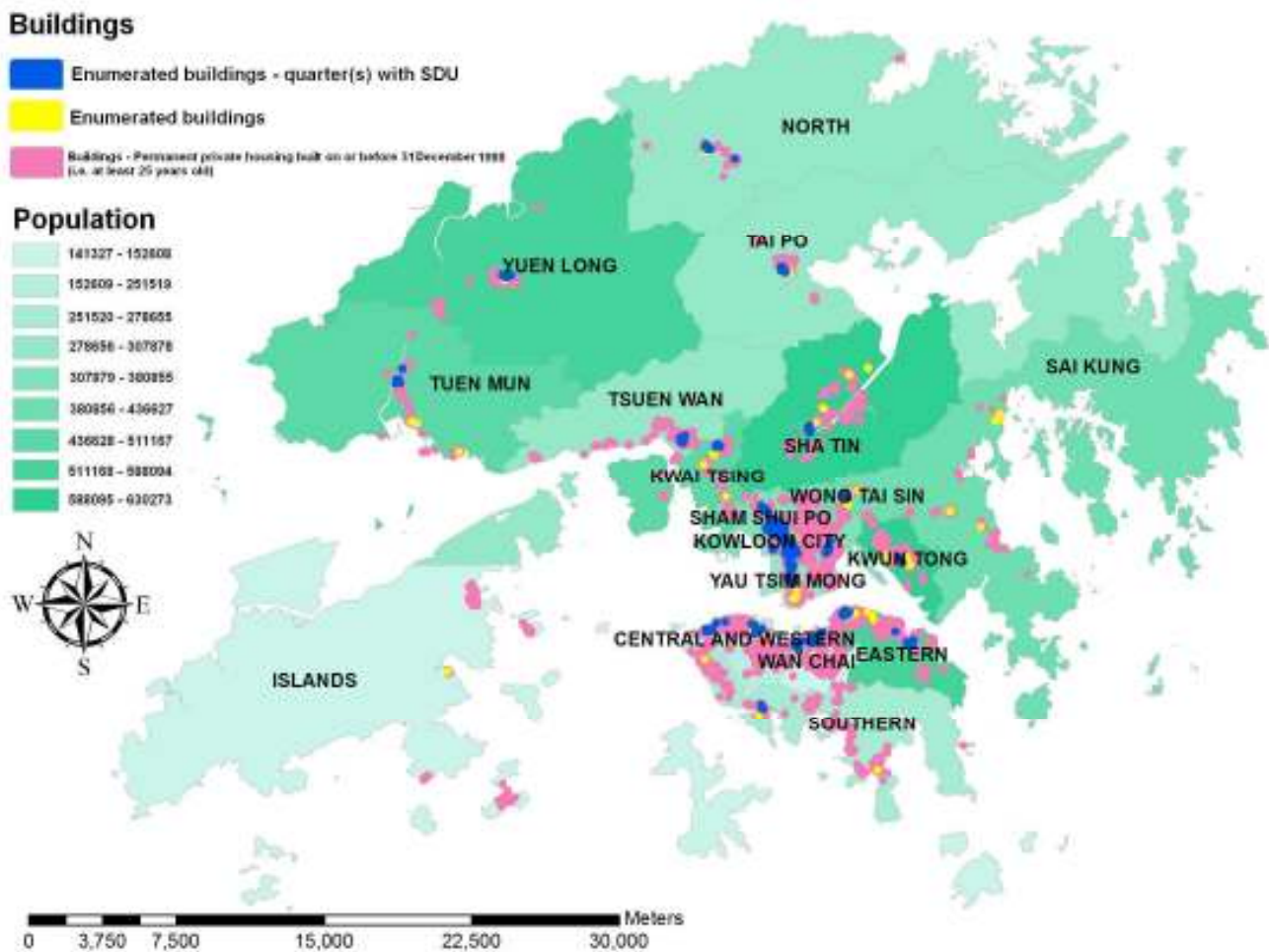
3.3.4 By adopting the ratio estimation method, it is estimated that there were **66 900 SDU**. The lower limit and upper limit of the estimated number of SDU in private domestic units, at 95% Confidence Interval, were 53 000 and 80 800 respectively. There were 33 300 SDU in Kowloon accounting for 49.8% of total number of SDU. On the Hong Kong Island and in New Territories West, there were respectively 16 000 and 14 100 SDU, accounting for 23.9% and 21.1% of total number of SDU. The remaining 3 500 SDU were located in New Territories East, accounting for 5.2% of the total number of SDU.

Chart 15: The distribution of the estimated number of SDU in private domestic units aged 25 and above in four regions



3.3.5 The map below shows the distribution of permanent private domestic/composite buildings aged 25 and above and the 1 860 buildings enumerated in the Survey, which are indicated in pink and yellow respectively. Buildings found to have SDU in the Survey are highlighted in blue.

Map 16: The distribution of the enumerated buildings with SDU



3.3.6 There were 2 389 000 domestic households in Hong Kong in 2012.²⁷ It is estimated that 66 900 domestic households (2.8%) were living in SDU. In Kowloon, out of 739 000 domestic households, 4.5% were living in SDU. Out of 425 700 and 983 700 domestic households respectively on the Hong Kong Island and in New Territories West, 3.8% and 2.1% were living in SDU. In New Territories East, out of 540 600 domestic households, 0.6% were living in SDU.

Table 17: The percentage of domestic households living in SDU in private domestic units aged 25 and above

	Estimated number of domestic households²⁸ living in SDU²⁹	Number of domestic households (C&SD 2012)³⁰	Percentage of domestic households living in SDU
Hong Kong Island	16 000	425 700	3.8%
Kowloon	33 300	739 000	4.5%
New Territories East	3 500	540 600	0.6%
New Territories West	14 100	683 700	2.1%
Total	66 900	2 389 000	2.8%

²⁷ The report Population and Household Statistics Analysed by District Council District 2011, Census and Statistics Department.

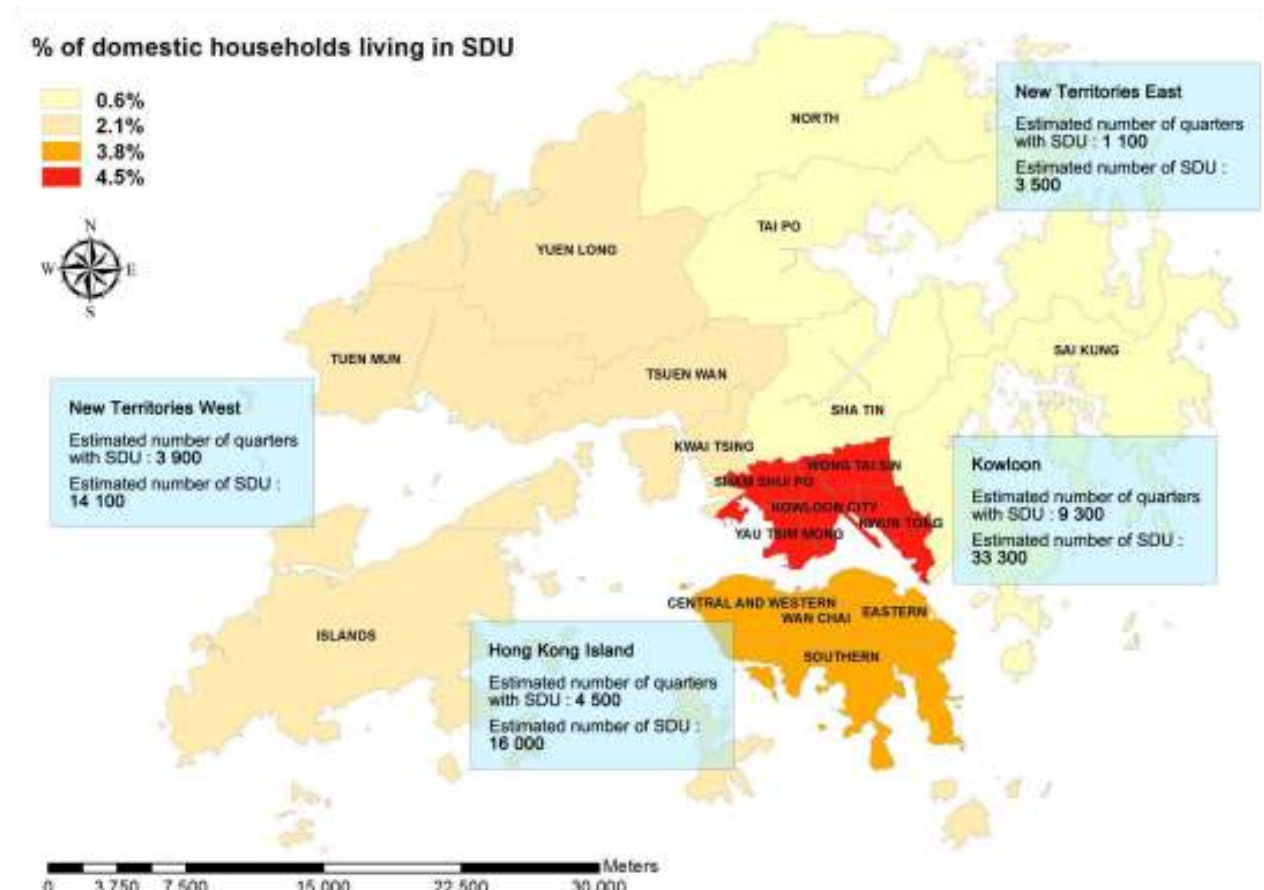
²⁸ The estimated number of SDU is based on the working definition mentioned in Chapter 3.1.

²⁹ One SDU is occupied by one domestic household.

³⁰ The report Population and Household Statistics Analysed by District Council District 2011, Census and Statistics Department.

3.3.7 The map below shows the percentage of domestic households living in SDU in the four regions.

Map 18: The percentage of domestic households living in SDU in private domestic units aged 25 and above



3.3.8 It is estimated that there were **171 300 persons living in SDU**, accounting for 2.4% of the total population in Hong Kong.³¹ In Kowloon, there were 81 600 persons living in SDU (accounting for 3.8% of the total population living in Kowloon). On the Hong Kong Island and in New Territories West, there were 37 800 and 45 500 persons living in SDU (3.0% and 2.3% respectively). In New Territories East, there were 6 400 persons living SDU (0.4%).

Table 19: The percentage of persons living in SDU in private domestic units aged 25 and above

	Estimated number of persons living in SDU ³²	Number of persons (C&SD 2012) ³³	Percentage of persons living in SDU
Hong Kong Island	37 800	1 260 100	3.0%
Kowloon	81 600	2 121 100	3.8%
New Territories East	6 400	1 672 000	0.4%
New Territories West	45 500	2 012 300	2.3%
Total	171 300	7 065 500	2.4%

³¹ The report Population and Household Statistics Analysed by District Council District 2011, Census and Statistics Department.

³² The estimated number of persons living in SDU is compiled by the data collected from the survey.

³³ The report Population and Household Statistics Analysed by District Council District 2011, Census and Statistics Department.

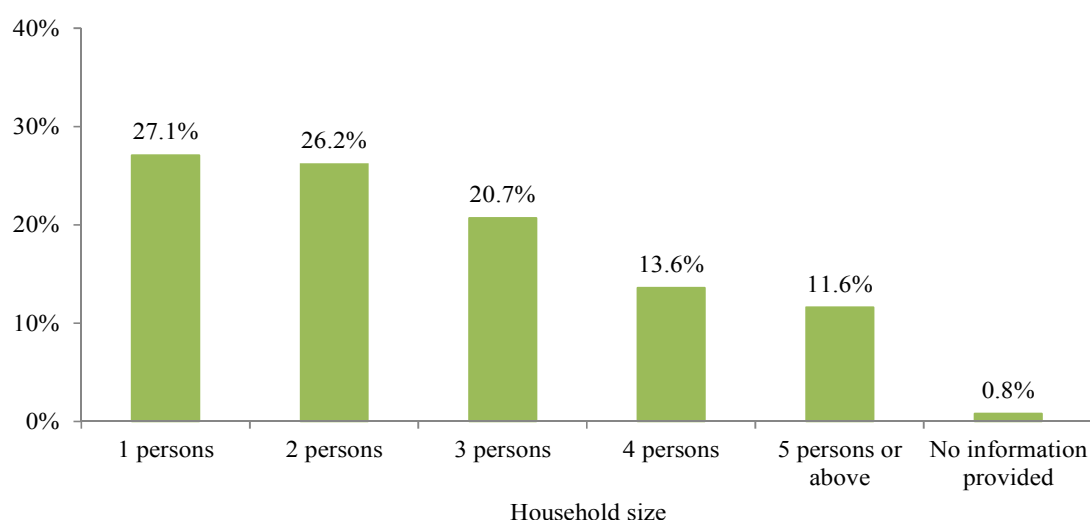
CHAPTER 4 | SURVEY FINDINGS

4.1 *Household Characteristics of SDU*

4.1.1 Information on the household characteristics of SDU, including household size, tenure accommodation and household income was collected in the Survey. The main findings are presented in the paragraphs below.

4.1.2 Small households predominated: 27.1% were one-person households, 26.2% were 2-person households and 20.7% were 3-person households. Besides, households with 4 persons and with 5 or more persons accounted for 13.6% and 11.6% respectively.

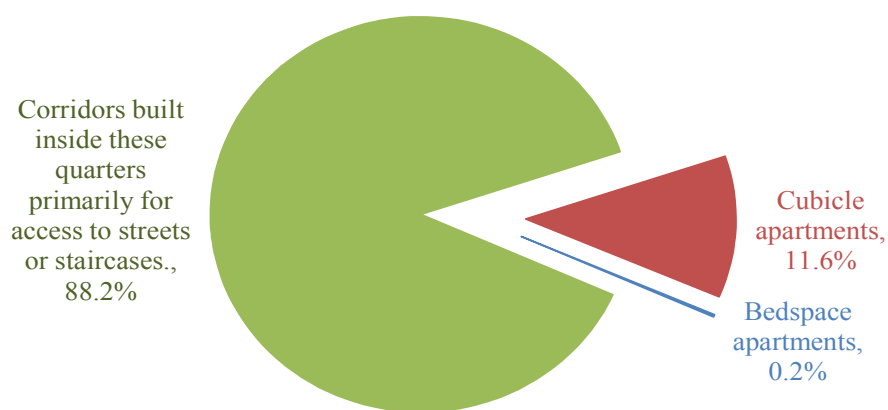
Chart 21: Household size of SDU (%)



Source: Information collected from the Long and Short Questionnaires

- 4.1.3 88.2% of households living in SDU were sole tenants. 11.8% shared the living quarters with other households, i.e. they were either the main tenants, sub-tenants or co-tenants.
- 4.1.4 88.2% of households were living in SDU with observable physical partitions (concrete or wooden) that were used to subdivide the quarters into two or more smaller units and with the corridors built inside these quarters primarily for access to streets or staircases as illustrated in diagram 9. 11.6% and 0.2% of households respectively were living in cubicle apartments and bedspace apartments as illustrated in diagram 11.

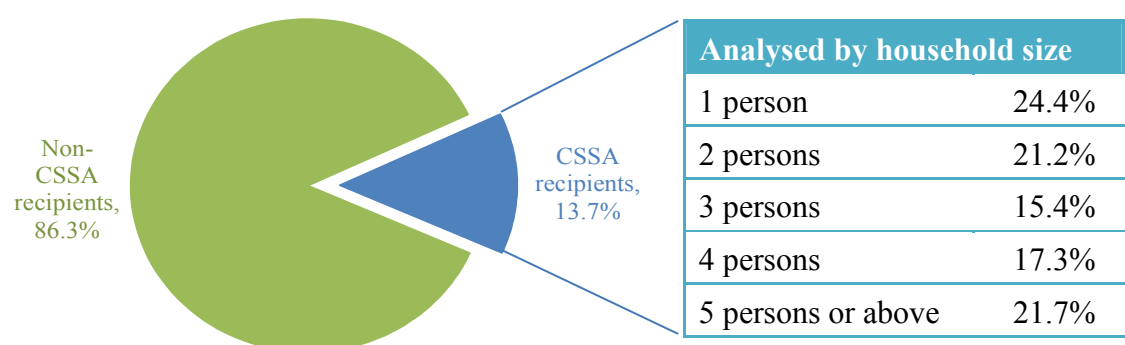
Chart 22: Types of SDU (%)



Source: Information collected from the Long and Short Questionnaires

4.1.5 13.7% of households living in SDU were CSSA recipients, 86.3% were non-CSSA recipients. Among those CSSA recipients living in SDU, 24.4% were 1-person households, 21.7% were households with more than 5 persons and 21.2% were 2-person households.

Chart 23: Whether the households received CSSA (%)



Source: Information collected from the Long Questionnaires

4.1.6 Among the non-CSSA households living in SDU, 38.1% had a monthly household employment income of \$15,000 or more. 29.5% had a monthly household employment income of \$10,000 to \$14,999. The Survey results also indicated that 6.5% of non-CSSA households had no income at all (e.g. retired couples). It is worth noting that 9.4% of the respondents refused to provide information on their monthly household employment income. In view of the high refusal rate, caution should be exercised in interpreting the survey findings on employment income.

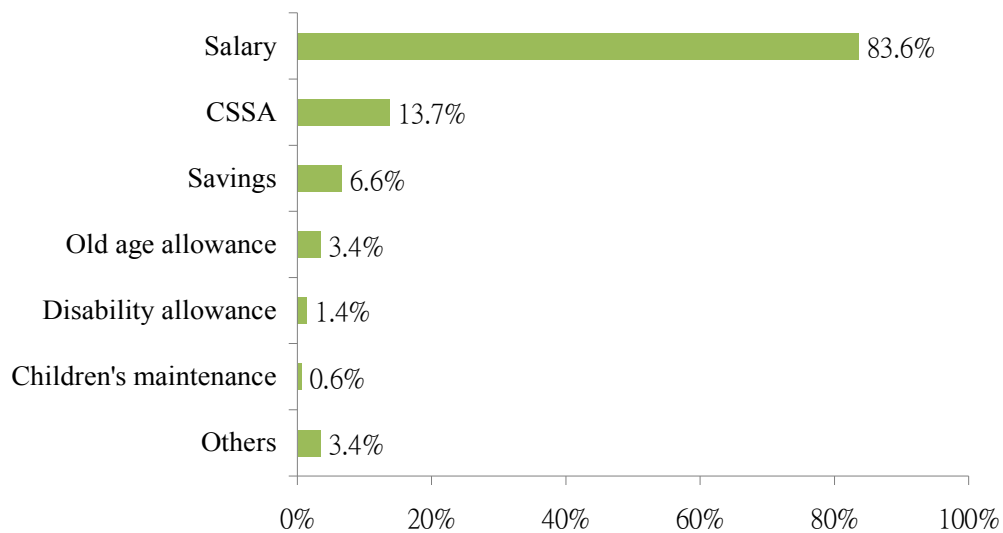
Table 24: Monthly household employment income among non-CSSA households living in SDU (%)

Monthly household employment income	% of households living in SDU
No income	6.5%
Below \$6,000	1.6%
\$6,000 – \$7,999	5.7%
\$8,000 – \$9,999	9.2%
\$10,000 – \$14,999	29.5%
\$15,000 or above	38.1%
Refuse to answer	9.4%
Per capita household employment income	\$5,490

Source: Information collected from the Long Questionnaires

4.1.7 The main source of household income for households living in SDU was employment income (83.6% of all households). 13.7% households relied on CSSA.

Chart 25: Sources of household income of households living in SDU * (%)



* A question with multiple responses

Source: Information collected from the Long Questionnaires

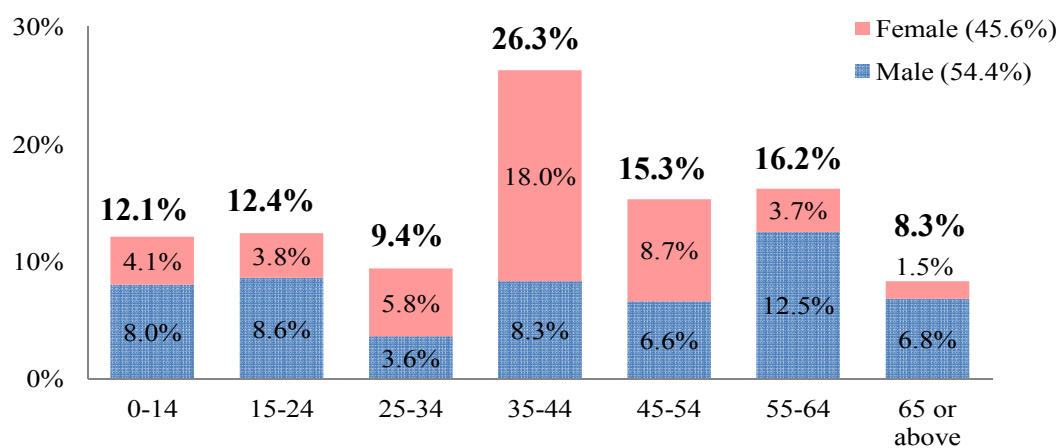
4.2 *Demographic Characteristics of Households Living in SDU*

4.2.1 Information on the demographic characteristics of household members living in SDU including sex, age, marital status, educational attainment, economic activity status and length of residence in Hong Kong was collected in the Survey. An analysis of their socio-economic characteristics is set out in the following paragraphs.

4.2.2 54.4% of households members living in SDU were male and 45.6% were female.

4.2.3 26.3% of household members living in SDU were between the age of 35 and 44 (male: 8.3%, female: 18.0%), 24.5% were aged 55 or above or aged 24 or below. Among the younger group (aged 24 or below) and older age-groups (aged 55 or above), there were more male household members. Among the middle-age groups, especially for those aged 35-44, there were more female household members.

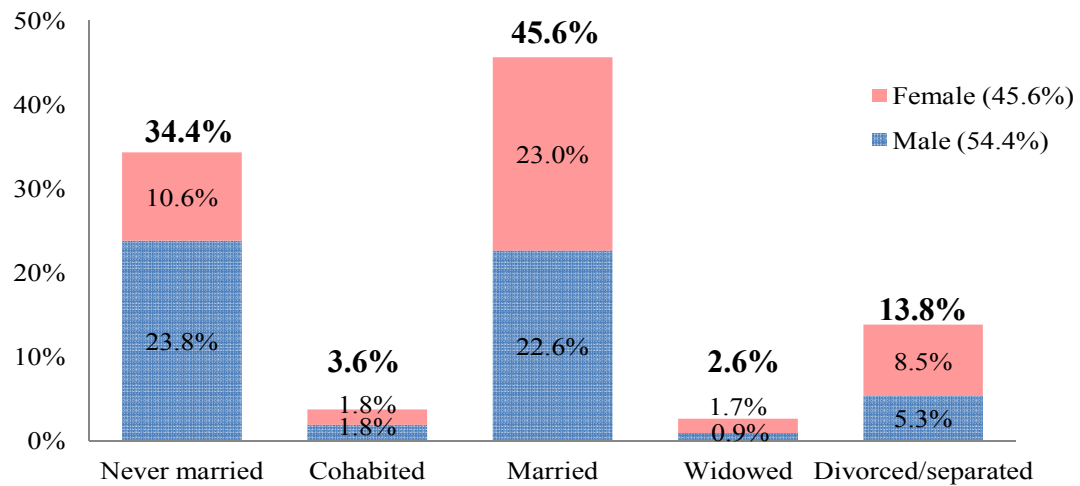
Chart 26: Sex and age distribution of household members living in SDU (%)



Source: Information collected from the Long Questionnaire

4.2.4 45.6% of household members living in SDU were married (male: 22.6%, female: 23.0%). 34.4% were not yet married (male: 23.8%, female: 10.6%). Among those household members who were not yet married, there were more male household members.

Chart 27: Marital status of household members living in SDU (%)

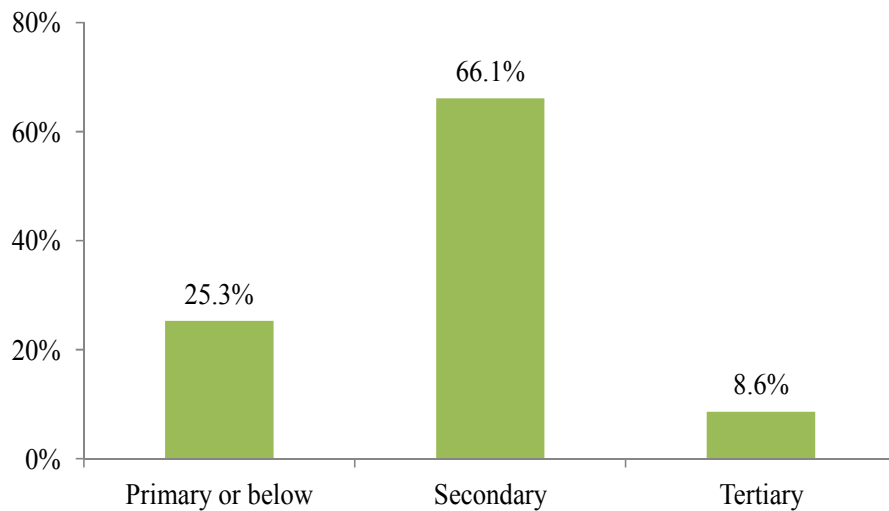


Source: Information collected from the Long Questionnaire

4.2.5 56.8% of household members living in SDU were economically active. 43.2% were economically inactive, including those who were retiree, home-makers, students or neither at work nor at school.

4.2.6 66.1% of household members living in SDU had attained secondary level of education and a further 25.3% had primary education or below. Only 8.6% had post-secondary education or above.

Chart 28: Educational level of household members living in SDU (%)



Source: Information collected from the Long Questionnaire

4.2.7 35.4% of household members living in SDU were new arrivals who had lived in Hong Kong for less than 7 years. 64.6% had been living in Hong Kong for 7 years or more.

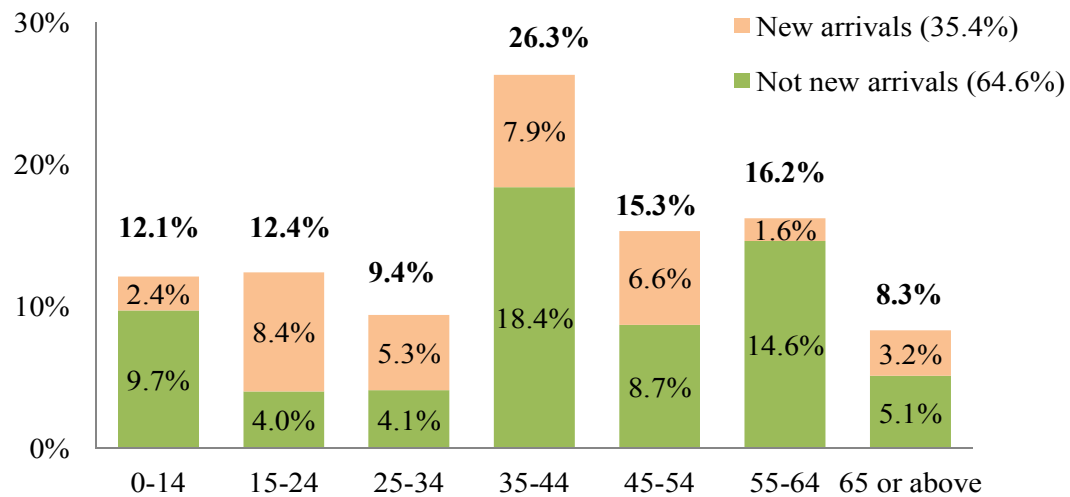
Chart 29: Length of residence in Hong Kong of household members living in SDU (%)



Source: Information collected from the Long Questionnaire

4.2.8 There were more new arrivals in the age groups 15-24 and 25-34 accounting for 8.4% and 5.3% respectively of all household members living in SDU.

Chart 30: Age and length of residence in Hong Kong of household members living in SDU (%)



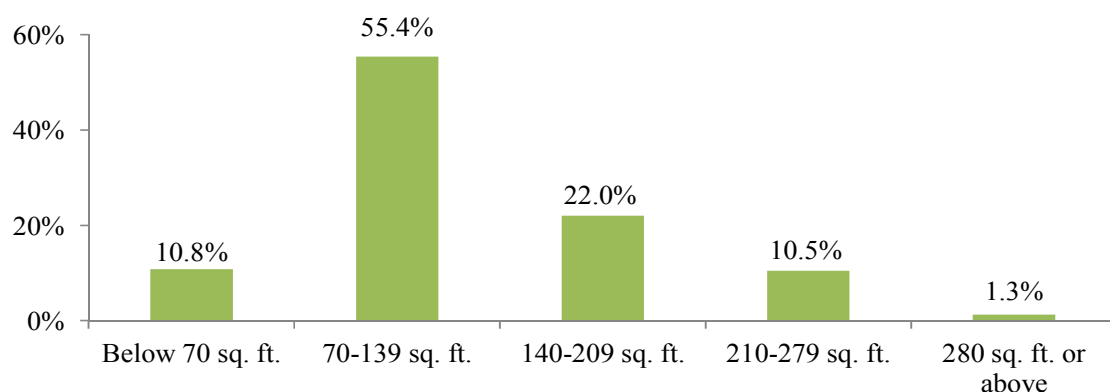
Source: Information collected from the Long Questionnaire

4.3 *Characteristics of SDU*

4.3.1 Information on the conditions of SDU including area, facilities inside SDU, rent and change in rent was collected in the Survey. An analysis of the conditions of SDU is set out in the following paragraphs.

4.3.2 Based on reports by households living in SDU, 55.4% of households were living in SDU with an area of around 70 - 139 square feet and 10.8% were living in SDU with an area below 70 square feet. The Survey results show that many households were living in overcrowded environment. Besides, 22.0% and 10.5% respectively were living in SDU with an area of 140 - 209 square feet and 210 - 279 square feet. Only 1.3% were living in SDU with an area of 280 square feet or above.

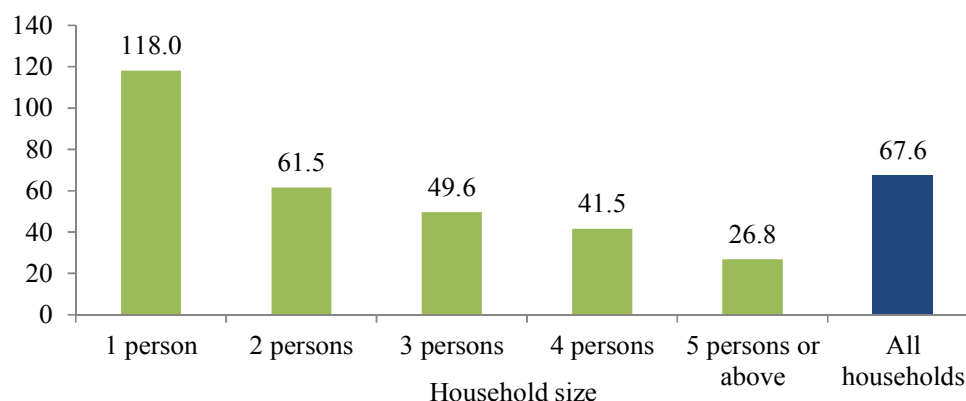
Chart 31: Area of SDU reported by households living in SDU (%)



Source: Information collected from the Long and Short Questionnaires

4.3.3 The average area of SDU per capita was around 67.6 square feet for all households living in SDU. For 1-person households, the average area per capita was around 118.0 square feet. For 2-person households, the average area per capita was around 61.5 square feet. For households with 3 persons or more, the situation was worse that the average area per capita was below 50 square feet.

Chart 32: Average area of SDU per capita (square feet)



Source: Information collected from the Long and Short Questionnaires

4.3.4 Based on reports by households living in SDU, most SDU had facilities like windows (accounting for 95.4% of all SDU), independent electricity meter (93.7%), fresh water supply (89.9%) and toilet (89.1%).³⁴ 54.3% had kitchen or cooking area.³⁵ It is worth noting that 54.3% had both toilet and kitchen or cooking area inside SDU.

Table 33: Facilities inside SDU reported by households living in SDU (%)

Facilities inside SDU *	% of SDU
Independent toilet	89.1%
Kitchen or cooking area	54.3%
Independent toilet and kitchen or cooking area	54.3%
Windows	95.4%
Independent electricity meter	93.7%
Fresh water supply	89.9%

* A question with multiple responses

Source: Information collected from the Long and Short Questionnaires

³⁴ All SDU have electricity supply.

³⁵ A kitchen or cooking area is a designated place equipped with (i) a sink with running water and (ii) cooking appliance.

4.3.5 Analysed by whether essential facilities are available inside the SDU, it is estimated that there were 30 600 SDU with any one of these essential facilities (kitchen or cooking area / toilet / water) not available inside the SDU, accounting for 45.7% of total estimated SDU. These 30 600 SDU should require particular attention.

Table 34: Estimated number of SDU analysed by whether essential facilities are available inside the SDU

Facilities inside SDU	Estimated number of SDU	%
Any one of the essential facilities (kitchen or cooking area / toilet / water) is not available inside the SDU	30 600	45.7%
All of these essential facilities (kitchen or cooking area / toilet / water) are available inside the SDU	36 300	54.3%
Total	66 900	100%

4.3.6 On average, the rental of SDU per month was around \$3,790 for all households living in SDU. The rental of SDU increased when the household size increased. For households with 5 persons or more, the monthly rental of SDU was around \$5,080. On the other hand, the average monthly rental per square foot was around \$29.1 for all households living in SDU.

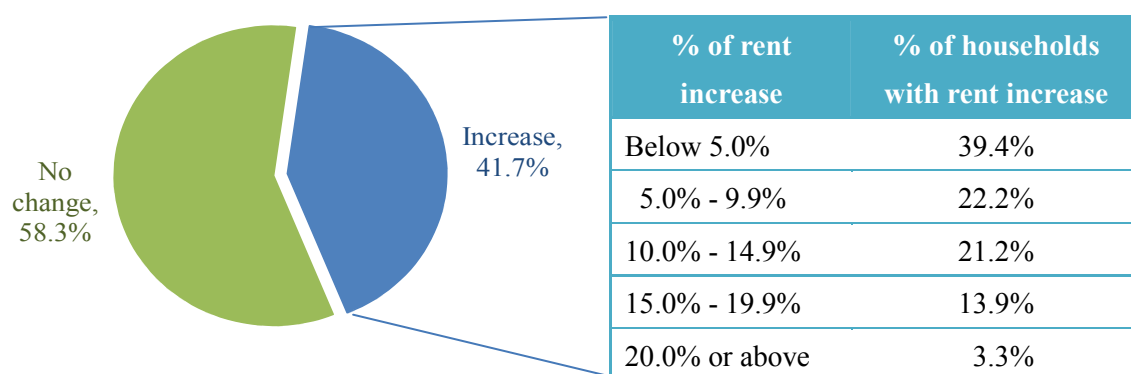
Table 35: Rental of SDU analysed by household size

Household size	Average rental per month (HK\$)	Average rental per square foot (HK\$)
1 person	\$3,070	\$27.8
2 persons	\$3,480	\$30.5
3 persons	\$4,020	\$29.8
4 persons	\$4,330	\$28.6
5 persons or above	\$5,080	\$28.8
All households	\$3,790	\$29.1

Source: Information collected from the Long and Short Questionnaires

4.3.7 58.3% of households living in SDU indicated that there was no change in the rent of their SDU whereas 41.7% indicated that the rent was increased in the past year. Among households reporting an increase in rent in the past year, 39.4% indicated that the percentage of the increase was below 5.0%. On average, the monthly rental increased by about \$542.

Chart 36: Change in rent in the past year (%)



Source: Information collected from the Long Questionnaire.

4.3.8 The median rent to income ratio was 29.2% for all households living in SDU which was higher than the median rent to income ratio for all households living in private residential flats (25.7%) in Hong Kong.³⁶ Analysed by household size, the median rent to income ratio was highest, at 31.4%, for households with 5 persons or above.

Table 37: Median rent to income ratio analysed by household size (%)

Household size	Median rent to income ratio
1 person	28.0%
2 persons	28.9%
3 persons	28.0%
4 persons	28.0%
5 persons or above	31.4%
All households	29.2%

Source: Information collected from the Long and Short Questionnaires

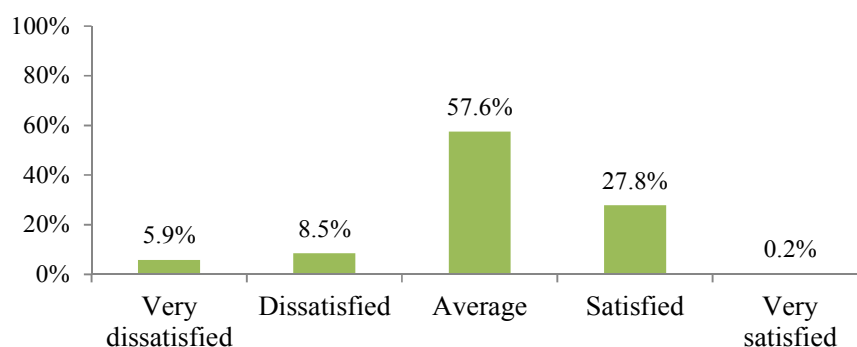
³⁶ 2011 Population Census Main Report: Volume I published by C&SD in November 2012, p.171.

4.4 *Conditions of Buildings and SDU*

4.4.1 Since enumerators do not possess the skills and professional knowledge to assess the conditions of buildings and SDU, information on the conditions of buildings and SDU was based on the perception of households living in SDU.

4.4.2 57.6% of households living in SDU considered the general conditions of the SDU as average and a further 28.0% were satisfied (satisfied: 27.8%, very satisfied: 0.2%) with the general conditions of the SDU. Still 14.4% were dissatisfied (dissatisfied 8.5%, very dissatisfied: 5.9%) with the general conditions in the SDU.

Chart 38: The views of households living in SDU on general conditions in the SDU (%)



Source: Information collected from the Long Questionnaire

4.4.3 53.0% were satisfied (satisfied: 51.0%, very satisfied: 2.0%) with the ventilation in the SDU whereas 23.0% were dissatisfied (dissatisfied 18.7%, very dissatisfied: 4.3%). On the other hand, it is not surprising to find that 47.2% were dissatisfied (dissatisfied 30.0%, very dissatisfied: 17.2%) with the extent of congestion in the SDU especially for the households with 3 persons or more as the average area per capita was below 50 square feet.

Table 39: The views of households living in SDU on the conditions of SDU (%)

	Very dissatisfied	Dissatisfied	Average	Satisfied	Very satisfied	Not applicable
General Conditions in SDU	5.9%	8.5%	57.6%	27.8%	0.2%	—
Ventilation in the SDU	4.3%	18.7%	24.0%	51.0%	2.0%	—
Extent of congestion in the SDU	17.2%	30.0%	17.1%	35.5%	0.2%	—

Source: Information collected from the Long Questionnaire

4.4.4 About half of households living in SDU indicated that they had encountered problems related to their SDU/buildings and the problems were water seepage (54.2%), concrete cracking (51.5%), messy electrical wiring (49.1%) and exposed reinforcement (47.2%). Among those problems reported by households, 12.7% and 11.3% indicated that the problems of water seepage and concrete cracking respectively were serious.

Table 40: The views of households living in SDU on problems of SDU/buildings (%)

	Serious	Average	Not serious	Do not have this problem
Water seepage	12.7%	9.2%	32.3%	45.8%
Concrete cracking	11.3%	7.7%	32.5%	48.5%
Messy electrical wiring	6.0%	26.5%	16.6%	50.9%
Exposed reinforcement	9.1%	6.2%	31.9%	52.8%

Source: Information collected from the Long Questionnaire

4.4.5 About two-thirds of households living in SDU were satisfied with the conditions of buildings, including water seepage conditions of buildings (satisfied: 64.7%, very satisfied: 3.3%) and clearance of passage and way exits of buildings (satisfied: 64.3%, very satisfied: 2.5%). More than or about half were satisfied or very satisfied with the fire prevention facilities of buildings (satisfied: 58.8%, very satisfied: 2.1%), law and order situations in the buildings (satisfied: 58.1%, very satisfied: 0.7%) and sanitary conditions of buildings (satisfied: 48.9%, very satisfied: 0.5%).

4.4.6 It is worth noting that about one in six households were dissatisfied or very dissatisfied with the sanitary conditions of buildings (dissatisfied 14.9%, very dissatisfied: 2.8%) and the law and order situations in the buildings (dissatisfied 15.1%, very dissatisfied: 2.2%). About one in ten households were dissatisfied or very dissatisfied with the clearance of passage way exits of buildings (dissatisfied 12.0%, very dissatisfied: 0.9%), water seepage conditions of buildings (dissatisfied 11.3%, very dissatisfied: 0.8%) and fire prevention facilities of buildings (dissatisfied 7.3%, very dissatisfied: 2.5%). The Survey results show that quite a number of households were dissatisfied with the conditions of buildings where they were living especially the hygiene and law and order situations.

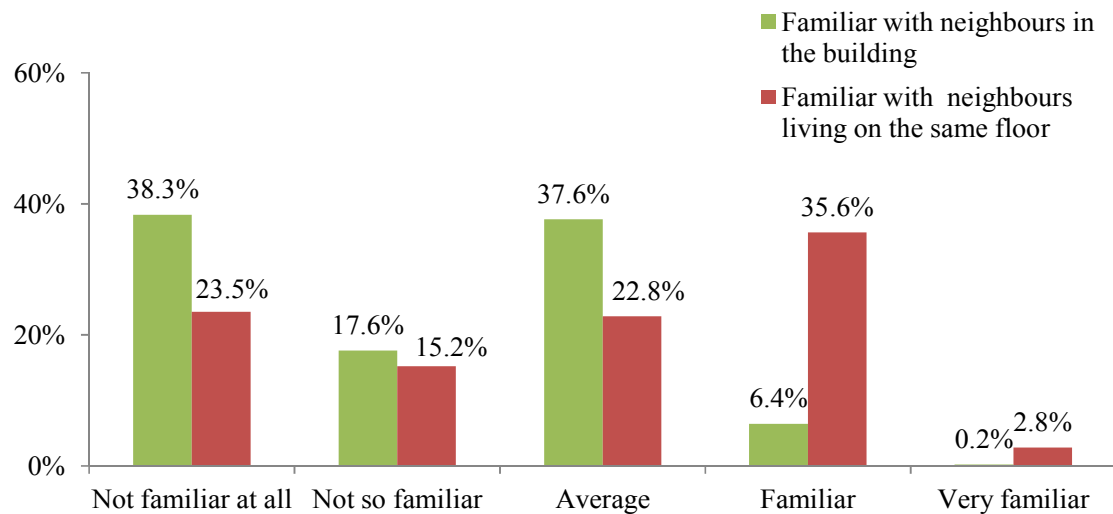
Table 41: The views of households living in SDU on conditions of buildings (%)

	Very dissatisfied	Dissatisfied	Average	Satisfied	Very satisfied
Sanitary conditions of buildings	2.8%	14.9%	32.9%	48.9%	0.5%
Clearance of passage way exits of buildings	0.9%	12.0%	20.2%	64.3%	2.5%
Fire prevention facilities of buildings	2.5%	7.3%	29.3%	58.8%	2.1%
Water seepage conditions of buildings	0.8%	11.3%	19.9%	64.7%	3.3%
Law and order situations in the buildings	2.2%	15.1%	23.9%	58.1%	0.7%

Source: Information collected from the Long Questionnaire

4.4.7 38.4% of households living in SDU were familiar or very familiar with their neighbours living on the same floor whereas 6.6% were familiar or very familiar with their neighbours living in the same building.

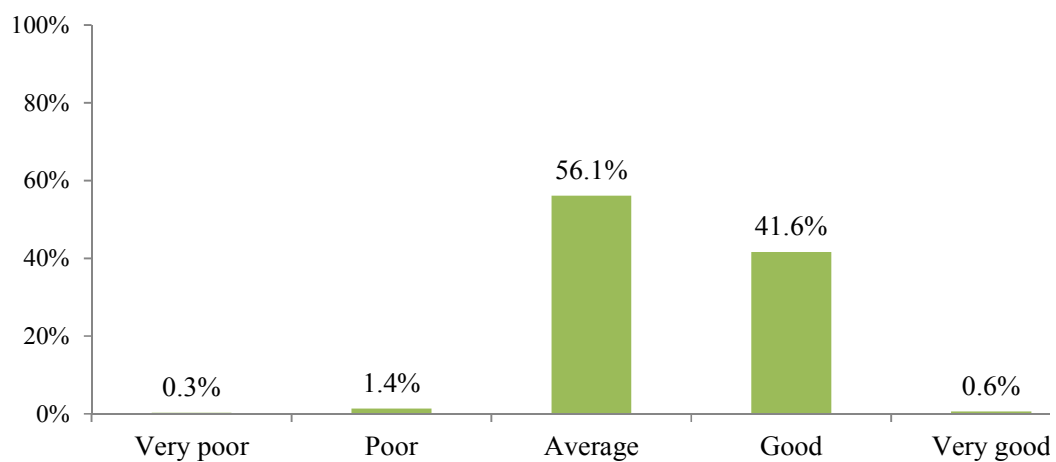
Chart 42: The extent of familiarisation with neighbours (%)



Source: Information collected from the Long Questionnaire

4.4.8 56.1% of households living in SDU considered their neighbourhood relationship as average and a further 42.2% reported that their neighbourhood relationships were good (good: 41.6%, very good: 0.6%). Only 1.7% indicated that their neighbourhood relationships were poor (poor: 1.4%, very poor: 0.3%).

Chart 43: Neighbourhood relationship of households living in SDU (%)

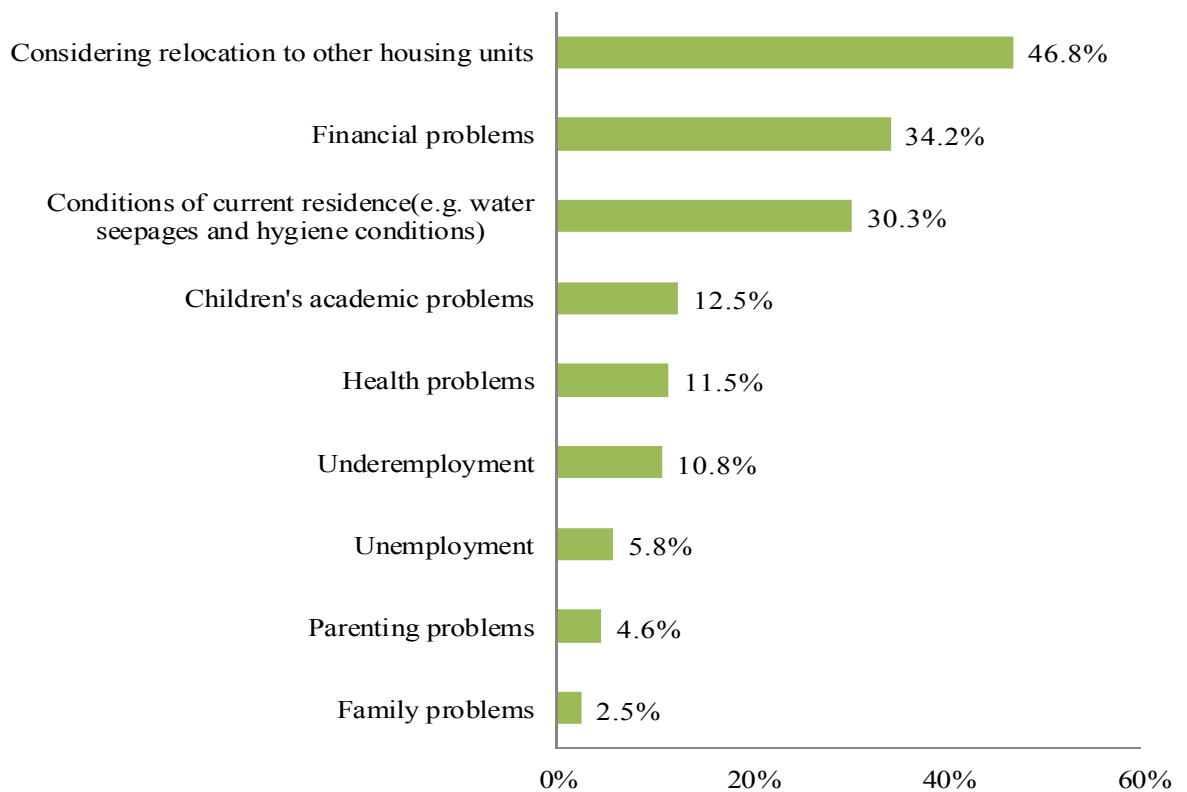


Source: Information collected from the Long Questionnaire

4.5 *Worries and Problems Faced by the Households Living in SDU*

- 4.5.1 46.8% of households living in SDU had worries about relocation to other housing units. 34.2% encountered financial problems and 30.3% had worries on the conditions of their current residence (e.g. water seepages and hygiene conditions). 12.5% and 11.5% encountered children's academic problems and health problems respectively. Regarding employment, 10.8% indicated that they were underemployment and 5.8% were unemployed.

Chart 44: Worries and problems faced by the households living in SDU * (%)



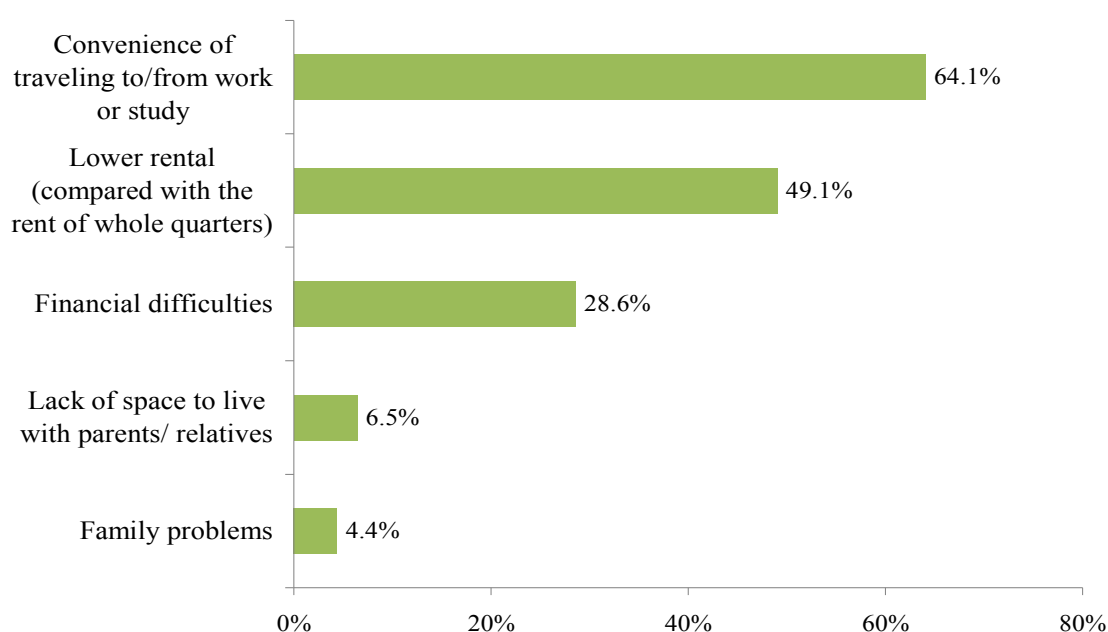
* A question with multiple responses

Source: Information collected from the Long Questionnaire

4.6 *Housing Needs*

- 4.6.1 The three major reasons for households to choose living in SDU were convenience of travelling to/from work or study (64.1%), lower rental of SDU (compared with the rent of whole quarters) (49.1%) and financial difficulties of households (28.6%). Other reasons were lack of space to live with parents/relatives (6.5%) and family problems (4.4%) as the new couples preferred to move out from the parents' residence after marriage and some could only afford the rent of SDU. Only 1.5% of households living in SDU have another residence.

Chart 45: Reasons for households living in SDU * (%)



* A question with multiple responses

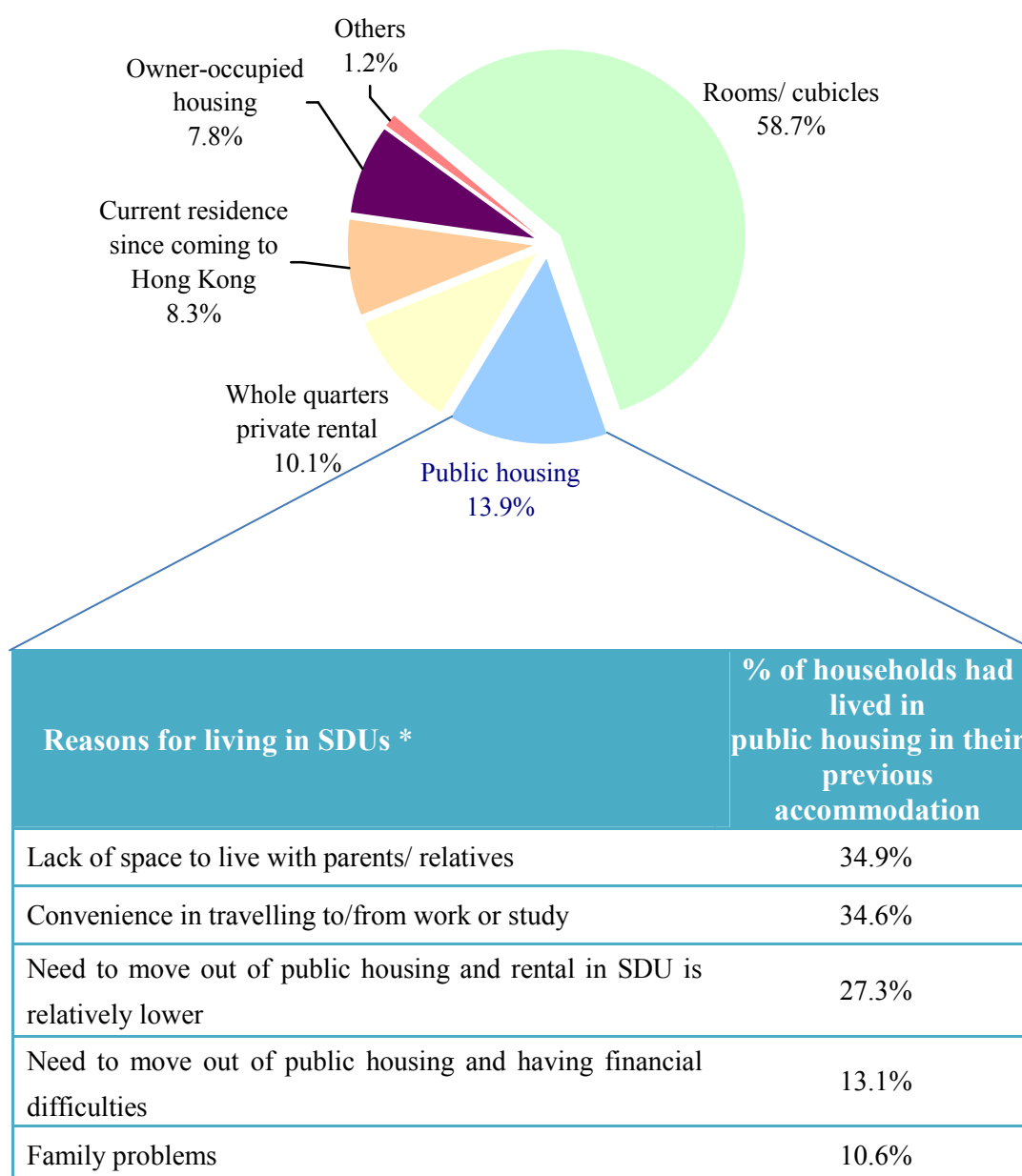
Source: Information collected from the Long Questionnaire

- 4.6.2 58.7% of households who were living in SDU had lived in rooms/cubicles in their previous accommodation. 13.9% had lived in public housing and a further 10.1% had rented whole private quarters before moving to their current SDU. 8.3% were new arrivals who had been living in their current SDU since coming to Hong Kong. 7.8% had lived in owner-occupied housing previously. Other previous accommodation included Home Ownership Scheme flats, temporary housing,

bedspace, etc.

- 4.6.3 It is noted that 13.9% had lived in public housing before they moved to their current SDU. The major reasons were lack of space to live with parents/ relatives (34.9%), convenience of travelling to/from work or study (34.6%) and need to move out of public housing and rental in SDU is relatively lower (27.3%).

Chart 46: Previous accommodation of households living in SDU (%)



* A question with multiple responses

Source: Information collected from the Long Questionnaire

- 4.6.4 52.6% of households living SDU indicated that they had not moved home in the past three years. 47.4% had moved home in the past three years and among them, 84.5% had moved once, 14.3% had moved twice and 1.2% had moved for three times or above. The major reasons for moving home in the past three years were “owners refused to renew the tenancy” (18.3%), “rent increase” (15.9%) and “not enough living space” (11.6%). Other reasons included family problems, convenient to go to work and poor environment.
- 4.6.5 On average, the duration of stay at the current SDU was about 57 months for all households. For those households who had moved home in the past three years, the duration of stay at the current SDU on average was about 18 months. For those households who had not moved home in the past three years, the duration of stay at the current SDU on average was longer at about 93 months.

Table 47: Whether households living in SDU moved home in the past three years (%)

	% of households living in SDU	Duration of stay at current SDU (average)
Moved home in the past three years	47.4%	18 months
Number of times:		
<i>One time</i>	84.5%	
<i>Two time</i>	14.3%	
<i>Three times or above</i>	1.2%	
Major reason:		
<i>Owners refused to renew the tenancy</i>	18.3%	
<i>Rent increase</i>	15.9%	
<i>Not enough living space</i>	11.6%	
<i>Others (e.g. family problems or convenient to go to work, poor environment)</i>	47.0%	
<i>No information provided</i>	7.1%	
Did not move home in the past three years	52.6%	93 months
All households	100.0%	57 months

Source: Information collected from the Long Questionnaire

- 4.6.6 49.6% of households living in SDU had applied for public housing. Among them, 97.1% were on the waiting list, 2.7% did not meet the criteria and 0.2% had accepted the offer and would soon move to public housing.
- 4.6.7 50.4% of households living in SDU had not applied for public housing. The reasons for not applying were “household income exceeds upper limit of eligibility” (49.0%), “not familiar with the process” (19.3%) and “not residing in Hong Kong for 7 years” (15.1%). Other reasons included family problems and assets exceeding upper limit of eligibility.

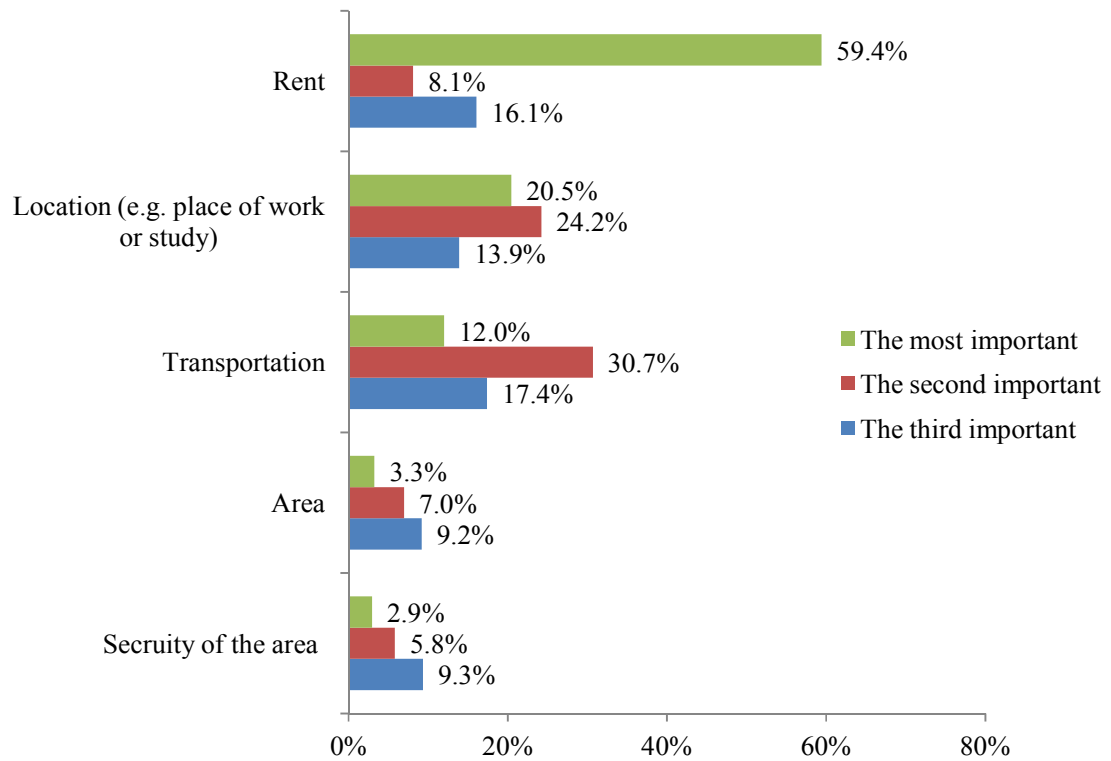
Table 48: Whether households living in SDU have applied for public housing (%)

	% of households living in SDU
Have applied for public housing	49.6%
Type of application:	
<i>Application by ordinary families</i>	81.2%
<i>Harmonious Families Priority Scheme</i>	5.7%
<i>Single Elderly Persons Priority Scheme</i>	5.3%
<i>Application by non-elderly One-person Application</i>	3.4%
<i>Elderly Persons Priority Scheme</i>	0.1%
<i>No information provided</i>	4.3%
Current application status:	
<i>Are on waiting list</i>	97.1%
<i>Do not meet the criteria</i>	2.7%
<i>Accepted offer and will soon move to public housing</i>	0.2%
Have not applied for public housing	50.4%
Reasons for not applying	
<i>Household income exceeds upper limit of eligibility</i>	49.0%
<i>Not familiar with the process</i>	19.3%
<i>Not residing in Hong Kong for 7 years</i>	15.1%
<i>Others: family problems / assets exceed upper limit of eligibility</i>	11.7%
All households	100.0%

Source: Information collected from the Long Questionnaire

4.6.8 The top five factors affecting housing choices of households living in SDU were rent, location, transportation, area and security of the area. The most important factor was rent (59.4%).

Chart 49: The importance of factors affecting housing choices of households living in SDU (%)



Source: Information collected from the Long Questionnaire

CHAPTER 5 | CONCLUSION

5.1 Survey Design

- 5.1.1 In recent years, there has been growing public concern about the housing, building, hygiene and safety problems associated with SDU which is commonly used to describe individual living quarters being subdivided into two or more smaller units for rental purpose. This Survey aims to provide estimates of the number of SDU in Hong Kong and gather relevant information on tenants living in SDU to facilitate the Steering Committee in formulating a projection on the housing demand.
- 5.1.2 Due to fragmented ownership, lack of monitoring by the building management, relatively large floor area and relatively low rental value (as reflected by rateable value) before subdivision and hence expected high profit margin on conversion, there is higher chance of quarters in older buildings being subdivided into two or more units for rental purpose. In view of this and time constraint of conducting the Survey, it is considered advisable to confine the scope of the Survey to those buildings aged 25 and above³⁷ so as to optimize utilization of resources and avoid causing unnecessary inconvenience to residents living in new buildings where the chance of having SDU is likely to be extremely small. The Survey covers *permanent private domestic/composite buildings built on or before 1988 (i.e. at least 25 years ago)*, excluding village houses.
- 5.1.3 It is worth noting that the quarters are subdivided in different manner. The definition of SDU adopted in the Survey is as follows: ***SDU is formed by the subdivision of individual living quarters into two or more units for rental purposes to more than one household.***
- 5.1.4 The Survey covered a stratified random sample of about 18 600 buildings age 25 and above, with the stratification factors being building age, rateable value and spatial characteristics (e.g. whether near MTR stations). A total of 1 860 buildings were fully or partially enumerated, accounting for 10% of the total number of buildings aged 25 and above. By visiting all quarters in the buildings

³⁷ A supplementary survey in permanent private domestic/composite buildings aged below 25 years has been conducted and the result is illustrated in Appendix 1.

sampled and interviewing as far as practically possible householders living there, attempts were made in the Survey to identify quarters with SDU.

5.2 *Estimated Number of SDU*

- 5.2.1 By adopting the ratio estimation method, it is estimated that there were 18 800 quarters with SDU and a total of **66 900 SDU**. The lower limit and upper limit of the estimated number of SDU, at 95% Confidence Interval, were 53 000 and 80 800 respectively. There were 33 300 SDU in Kowloon accounting for 49.8% of the total number of SDU. On the Hong Kong Island and in New Territories West, there were 16 000 and 14 100 SDU respectively, accounting for 23.9% and 21.1% of the total number of SDU. The remaining 3 500 SDU were located in New Territories East, accounting for 5.2% of the total number of SDU.
- 5.2.2 It is estimated that 66 900 domestic households (accounting for 2.8% of the whole territory) were living in SDU. It is also estimated that there were **171 300 persons living in SDU**, accounting for 2.4% of the total population in Hong Kong.³⁸ In Kowloon, there were 81 600 persons living in SDU (accounting for 3.8% of the total population living in Kowloon). On the Hong Kong Island and in New Territories West, there were 37 800 and 45 500 persons living in SDU (3.0% and 2.3% respectively). In New Territories East, there were 6 400 persons living SDU (0.4%).

³⁸ The report Population and Household Statistics Analysed by District Council District 2011, Census and Statistics Department.

5.3 *Characteristics of SDU*

- 5.3.1 The Survey results show that many households were living in overcrowded environment. Based on reports by households living in SDU, the average area of SDU per capita was around 67.6 square feet for all households living in SDU. For households with 3 persons or more, the situation was worse where the average area per capita was below 50 square feet.
- 5.3.2 Although most SDU had facilities like windows, independent electricity meter, fresh water supply and toilet, there were still 45.7% households living in SDU that did not have both toilet and kitchen or cooking area³⁹ inside the SDU.
- 5.3.3 On average, the rental of SDU per month was around \$3,790 for all households living in SDU. The average rental per square foot was around \$29.1 for all households living in SDU which might even be higher than that of luxury flats. In addition, the median rent to income ratio was 29.2% for all households living in SDU which was higher than the median rent to income ratio for all households living in private residential flats (25.7%).
- 5.3.4 The perceived conditions of buildings and SDU from households living in SDU were diverse. With regard to the extent of congestion in the SDU, about half of households living in SDU were dissatisfied. Besides, about half of households living in SDU indicated that they had encountered problems related to their SDU/buildings such as water seepage, concrete cracking, messy electrical wiring and exposed reinforcement.
- 5.3.5 On the whole, 57.6% of households living in SDU considered the general conditions of the SDU as average and a further 28.0% were satisfied (satisfied: 27.8%, very satisfied: 0.2%) with the general conditions of the SDU. Still 14.4% were dissatisfied (dissatisfied 8.5%, very dissatisfied: 5.9%) the general conditions in the SDU.

³⁹ A kitchen or cooking area is a designated place equipped with (i) a sink with running water and (ii) cooking appliance.

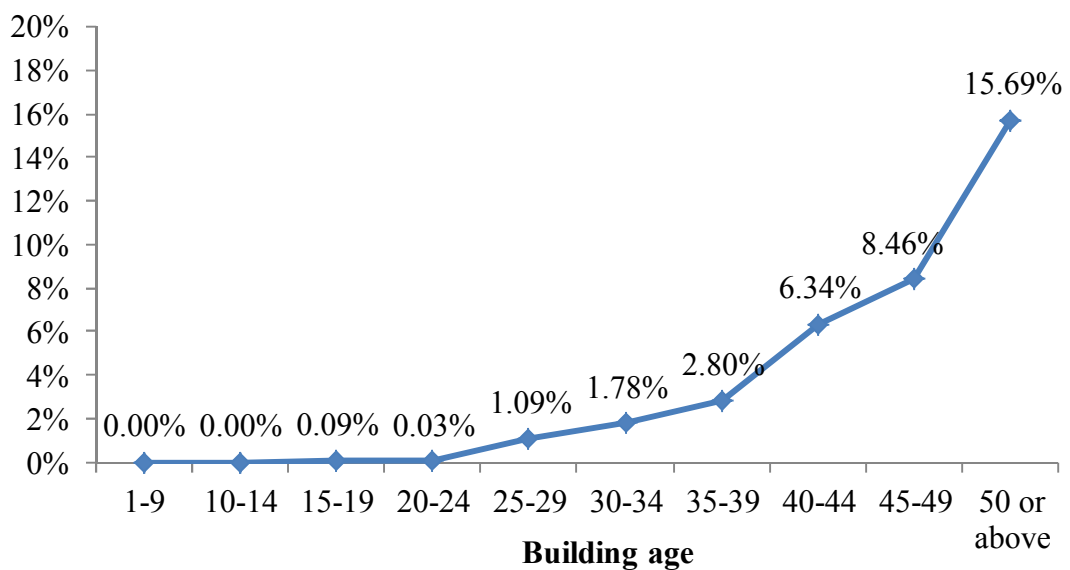
- 5.3.6 All in all, it was estimated that there were 66 900 SDU where 171 300 persons were living inside. The Survey results reflect that many households were living in overcrowded environment without all of the essential facilities, namely kitchen or cooking area, toilet and water. Analysed by whether essential facilities are available inside the SDU, it is estimated that there were 30 600 SDU with at least one of these essential facilities (kitchen or cooking area / toilet / water) not available inside the SDU, accounting for 45.7% of the total estimated SDU. These 30 600 SDU should require particular attention.
- 5.3.7 The problems faced by households living in SDU go deeper than unaffordable rent. There are concerns about the conditions of SDU, the hygiene and safety of buildings. Nevertheless, given that the three major reasons for households living in SDU were convenience of travelling to/from work or study, lower rental of SDU compared with the rent of whole quarters and financial difficulties of households, there were numerous households living in SDU and the situation is worthy of our concern.

APPENDIX 1 | SUPPLEMENTARY SURVEY

1. Due to their fragmented ownership, lack of monitoring by the building management, relatively large floor area and relatively low rental value (as reflected by rateable value) before subdivision, there is much higher chance of finding domestic premises in these old buildings being subdivided into two or more units for rental purpose when comparing to that of new buildings. In view of this and the tight time frame within which the Survey had to take place, the scope of the Survey was confined to buildings aged 25 and above. Nevertheless, in response to the Steering Committee members' request raised at the meeting on 9 May 2013 and to test the hypothesis that few SDU occur in newer buildings, a Supplementary Survey was conducted within some 10 days in mid May 2013 on permanent private domestic/composite buildings aged 24 and below in Hong Kong. A total of 200 buildings were selected to further explore the situation of SDU in permanent private domestic/composite buildings built on or after January 1989 (i.e. 24 years old and below), excluding village houses.
2. Based on the results conducted among buildings in both the Survey and the Supplementary Survey, the percentage of quarters with SDU decreased with the age of the buildings, from 15.7% for buildings aged 50 and above to 0.09% for buildings aged 15-19. In the Supplementary Survey, no quarters with SDU was found in private domestic units aged below 15 years.

3. The chart below depicts the decreasing trend. The Supplementary Survey results clearly shows that it is appropriate to confine the scope of the Survey to those buildings aged 25 and above so as to optimize utilization of resources and avoid causing unnecessary inconvenience to residents living in new buildings where the chance of having SDU is likely to be extremely small.

Chart 50: Percentages of quarters with SDU analysed by building age groups among the enumerated buildings



APPENDIX 2 | FEASIBILITY STUDY on INDUSTRIAL BUILDINGS

1. The general public is concerned that SDU is on an increasing trend as such units are not only found in residential/composite buildings but also in industrial buildings. As indicated in the result of Population Census 2011 conducted by the C&SD, as at mid-2011, there were some 3 044 domestic households, with a total of 6 230 people living in quarters in non-residential buildings (including commercial buildings and industrial buildings). Living conditions in the industrial buildings are deplorable and there are also problems related to building safety. Besides, having SDU in industrial buildings is itself a violation of the law.
2. A Feasibility Study on industrial buildings was conducted to explore methods in estimation of tenants living in SDU. Several interviews with these tenants were conducted to gather the relevant information.
3. A sample of 12 targeted industrial buildings was selected with reference to previous press coverage and BD's complaint cases received and a total of 12 buildings were visited and all were partially enumerated. There were 8 households living in SDU in the enumerated industrial buildings. 4 households were successfully interviewed while 4 households refused to participate in the Survey. There were another 71 units found to have been subdivided. However, whether the units were used for domestic or non-domestic purposes could not be confirmed during the field visits.
4. It is worth noting that quite a number of problems were encountered during the field visits to the industrial buildings sampled. The management offices of the industrial buildings would only allow the enumerators to enter the industrial buildings in the day time. During the day time it was very difficult for the enumerators to contact the householders. It was thus very difficult to confirm whether the units were used for domestic or non-domestic purposes.