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Executive summary

The UN-Habitat Housing Practices Series is an ongoing publication developed and produced by UN-Habitat in partnership with academic institutions and National Governments. It provides reliable and independent documentation of innovative and large-scale affordable housing programmes in countries around the world. Rather than drawing from theory or abstract models, the Housing Practices Series shares insights drawn from countries' experience. Each volume holistically documents one housing programme that has achieved significant results and is therefore showcased as a "best practice". The volumes are based on sound research that clearly describes the country's housing sector context, the elements of the programme, key achievements and challenges, and suggestions for further programme improvement.

UN-Habitat believes that disseminating up-to-date information on country-specific large-scale housing programmes is vital in revealing to other developing countries the programmatic opportunities for addressing their housing shortages, reducing slum formation and growth, and improving the housing conditions of their citizens. The hope is that these publications will contribute to deepen the understanding of the available measures to be taken to ensure access to adequate, affordable, and sustainable housing for all.

This volume presents the Singapore model of public housing, which is unique among countries with public housing systems in terms of both the proportion of residents living in public housing; and its focus on home ownership of public housing flats. Today, more than 80% of Singapore's residents live in housing provided by the Housing and Development Board (HDB). The volume highlights tangible, evidence-based measures implemented by the HDB in addressing housing unaffordability since the 1960s, as well as its shift from understanding public housing as shelter for resettled families and the poor to universal provision. Since 1961, in fact, the HDB completed more than 1 million housing units. Furthermore, its building programme was complemented by comprehensive and integrated planning to create a self-sufficient environment conducive for residents to live, work, play and learn - making housing the centre of a social welfare infrastructure.

This shift to universal provision has also given Singapore the opportunity to solve social and political issues (e.g., ethnic integration and community building) by tackling them through public housing.

Furthermore, the recent focus on upgrading the existing housing supply is based on principles of engagement, scale, and market research, and can be an example for housing authorities that similarly seek to enhance the physical environment of their residential neighbourhoods as well as the interior of apartments within housing blocks.

This publication is intended for policy makers, public sector officials and urban practitioners. Accordingly, it aims to outline the design and effect of programmes on the multiple dimensions of housing (housing needs and demands, land, finance, infrastructure, the construction sector among others).

The first part of the publication gives a broad overview of the history of the public housing sector in Singapore and highlight its significance in its context. The second part outlines the programme and how it was tailored to address the poor and vulnerable segments of society. The third and fourth parts document the programme's performance, especially in community building, and how it has been used to strengthen place identity. Finally, the fifth part outlines the 'lessons learnt' and achievements of Singapore's public housing system and its record of meeting the needs of the society.

CHAPTER 1:

The Decision to Build Public Housing in Singapore

Author: K.C. HO

1. History of Public Housing Provision[1]

The British had founded Singapore as a base to carry out essential distributive, financial, transportation and communications functions, with Malaya as both a hinterland for agricultural and mineral products, as well as a consumer market for British goods. Given the geographically strategic position that Singapore had, this type of entrepôt trade became very lucrative and remained the backbone of Singapore's economy. Its continued success over this period create the demand and guaranteed investment in the facilities connected with entrepôt trading. The dominance of entrepôt trading also gave rise to a complex network of financiers, traders, semi-wholesalers and agency house and skills that involved transhipment, grading, processing, packing, storage, breaking of bulk and access to markets and credit facilities (McGee, 1967:57-60, 137; IBRD, 1955:95). The settlement around the harbour and river area began to grow in density and economic diversity as trade grew. According to Choe (1975: 97), this settlement, known as the Central Area, is estimated at about 1,700 acres (about 1.2% of the total land area of the Island). The economic activities which encompass the Central Area radiated from the mouth of the Singapore River.

The attention of colonial authorities focused on nurturing and protecting the core technology that supported the island's key economic activity. Nowhere was this more clearly seen than in the three years after the Second World War, where ten and a half million Malaysian dollars were spent rebuilding and expanding port facilities (Allen, 1951:6). The fact that the amount spent on port development for these three years came close to the total amount spent on housing for the entire 140-year colonial period gives an indication of the colonial attitude towards social expenditures. This colonial attitude towards trade influenced housing location. Residential areas for the various ethnic groups were determined when the commercial/port area was planned in the 1820's. Given colonial priorities, residential allocation was planned in conjunction with mercantile and port activity. Accordingly, locations were planned only for the immigrant merchant population (i.e. the Chinese and the Indians) which were placed close to the mercantile area. The local Malays, which were mainly fishermen, were not residentially planned for and were found along the coast well outside the town area (Hodder, 1953:27).

Under the colonial municipal authorities, the Central Area had developed into an area of highly congested mixed land use. In it were the entrepôt infrastructure

Residential areas for the various ethnic groups were determined when the commercial/port area was planned in the **1820's**
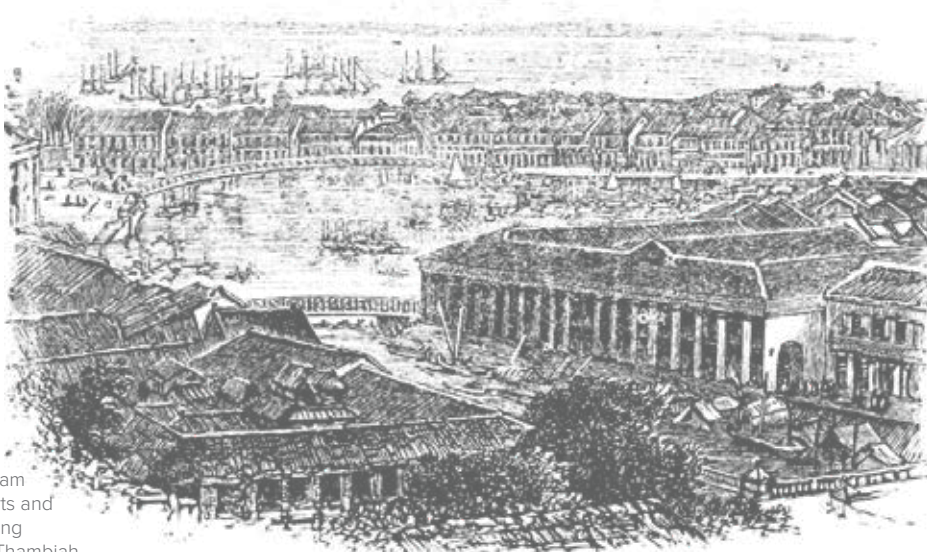
[1] This chapter is drawn from Ho (1993: 369-381). I am grateful to Dean Danny Wong from Faculty of Arts and Society Sciences, University of Malaya for granting permission and to Associate Professor Shanthi Thambiah for facilitating this process.

(harbour, warehousing, storage, transport, communications), services (banks, trade houses, various traders and transport and communication services) and various types of wholesale activities that formed the nucleus of the Singapore economy. Rapid population growth and the inattention of the authorities led to high residential densities in the Central Area. The attempt by the colonial authorities to residentially segregate various ethnic groups in the central area also led to the identification of ethnicity with place, as various cultural and religious institutions developed in the midst of ethnic enclaves. The high residential densities in the central area also supported a wide range of retail and recreational activities, of a more basic nature as well as specialized goods and services supported by various ethnic populations.

As a result of the original plan to residentially locate the immigrant populations close to the business area, there was a continued tendency for the residential population to continue staying at or near places of work in the inner core of the city. With the work residence arrangement, rapid natural population growth and in migration, residential land use began taking on an increasingly larger portion of the city landscape. Conventional housing became rapidly congested through sub-tenancy particularly in the Central Area.

When faced with the prospect of an increasingly congested central area, colonial authorities were reluctant to intervene to solve the problem, preferring to take a more passive approach to city management. An example of this attitude is illustrated by the following passage from the 1918 Housing Commission. Roland Braddell, a member of the commission directs the following question to B. Ball, who was the Municipal Engineer in charge of municipal public works:

Mr Braddell: Supposing that there was a City Improvement Trust in Singapore and that it had the powers for the compulsory acquisition of land for the purpose of developing that area, would this be a suitable area for the Trust to buy the whole block up compulsorily and then lay out the roads and then dispose of the land?

Mr Ball: No... I do not think that a public body should be put to the expense and trouble of buying up that land and developing it.

(Housing Commission, 1918: para 752)

Aside from reluctance to direct intervention in the form of legislative changes to ensure active public participation in acquisition and land development, the municipality was also unwilling to develop public amenities that might have assisted in private housing development in the suburbs. A mild condemnation on this latter point who reported at the end of the hearings, when the commission (1918:AI2) reported that one of the causes for housing shortages in Singapore "may be ascribed to difficulties arising out of, or connected with... the want of municipal encouragement and assistance to builders". The report went on to elaborate what this meant:

"The initial difficulties by which an intending builder is beset would be made lighter if the Municipality were to drop its attitude of passivity, and adopt a policy of active assistance. We realize that the Municipal Commissioners feel that as custodians of the rate-payer's money, they are compelled to consider carefully how they incur any expenditure in schemes which tend to assist in the development of private property. In respect to the supply of water and light to houses lying in the outer fringes of the suburbs, the policy of the Commissioners is undoubtedly cautious. It errs we think on the side of over- caution. ... We do not urge the Municipality at present to lay gas or water to stimulate development. That is to say, we do not ask it to lead. But we ask it to accompany development. At present, it lags behind it."

(Housing Commission, 1918: Vol. 1, A21,22)

Social Housing at Toa Payoh, Singapore. Image courtesy of the Housing & Development Board. © HDB

This policy of concentrating public utility expenditure in the central area at the expense of the rest of the island, had the effect of reinforcing the residential concentration that was already occurring in the city.

Governmental efforts at housing provision can be traced to the formation of the Singapore Improvement Trust (SIT) in 1927. Its original function was aimed at the provision of roads and the acquisition of land for improvement schemes. SIT's original function was aimed at the provision of roads and the acquisition of land for improvement schemes.

It is important to note that providing low cost housing was not the major reason for the formation of SIT (Quah, 1975:135, 222). SIT viewed the issue of housing provision with great reluctance, as the following passage indicates:

During the early years the Trust had no power to build except where expressly laid down in an improvement scheme but was obliged to provide accommodation for people actually dishoused... The Trustees were for many years reluctant that the Trust should undertake any housing on a large scale as such was apparently not the original intention when the Trust was created.

(Fraser, 1948:7,8)

One major reason for this reluctance was due to the government's pre-occupation with another urban policy. In 1907, W.J. Simpson was invited by the government to study the health and sanitary conditions in Singapore, and recommended the construction of back lanes between shophouses as a means of providing better drainage, ventilation and light to residents in the congested central area, where houses were built literally back to back, the result of rapid urbanization and population growth. This recommendation was adopted by the colonial government in section 2(2) of the Improvement Ordinance and 148 of the Municipal Ordinance (Chapter 133, 1913).

A few years later, a housing commission (1918 Housing Commission, 1918: A48) set up to look into the deteriorating housing condition reached the conclusion that the construction of back lanes is "the most important scheme of all, one that will be most used". The continuity of this scheme was ensured when Mr. William Bartley took over as Chairman of the Singapore Improvement Trust in 1931. Under Bartley, the policy of the Trust was directed to an intensification of the back lane programme which was considered to be the "best means of opening up insanitary blocks of back to back houses to light, air and municipal services" (SIT, 1948:10). Between 1910 and 1947, a total of 252 back lanes were scheduled to be constructed by the Municipal Government.

Instead of new housing provision, municipal efforts at solving the congestion and sanitation problem involved efforts directed at solving the problem on site, in the crowded central area. The perceptions of officials faced with the task of improving the Municipality was such that the back lane scheme was offered as the only solution to the problems facing the Central Area:

Mr. Braddell:
It would be impossible would it not, in respect of these blocks of built-over land in Chinatown, these back to back houses, to improve them in any better way than by driving back lanes through them? ... The only improvement in Chinatown would be to open it up and drive back lanes through it?

Mr. B. Ball:
That is so.

(Housing Commission, 1918: vol 2, para. 882)

However, twenty years of managing central area congestion and experimenting with back lanes also led to the growing realization within the SIT that the back lane scheme was only a stop-gap measure. A SIT report (1948: 10) observed that the reconstruction that had to be done for the rear portions of the houses affected had only intermediate rather the long term value, since the housing stock was "obsolete and overdue for demolition and rebuilding", adding that "the reconstruction of the rear portion of a house for back lane purposes cuts down the living accommodation by about one half in many cases, and thus creates rehousing problems and aggravates overcrowding."

With the realization of the short term value of the back lane scheme there was a gradual shift in thinking towards providing for public housing. In response to the worsening housing shortage, SIT was given power to build more houses in 1932, and built about 2,049 units with 54 shops by December 1941 (SIT Annual Report, 1959). In 1936, the first public housing scheme at Tiong Bahru was started. This project is significant because it marked the beginnings

of the shift in thinking and commitment from onsite improvement schemes which the municipal government had been adopting to an increasingly more comprehensive public housing scheme.

The attitude of the colonial government began to change after the Second World War. There was an increasing attention paid towards social expenditures. Part of this awareness resulted in two fairly detailed surveys done on Singapore's central area by the Department of Social Welfare (DSW) in 1947 and 1954. In both surveys, the term "space" is used to denote the most congested sleeping arrangement: "places like bunks in passage ways, the tiered bedlofts common in Singapore, sleeping selves under or over staircases, sleeping arrangements in fivefoot ways, kitchens and backyards, and other places used for sleeping without enclosures or partitions" (DSW, 1947: 70). In 1947, the percentage of household using such spaces consisted 21% in ward 1 (the harbour area stretching to west Chinatown), 16% in ward 2 (the rest of Chinatown, including the business district, extending east to Middle Road) and 26% in ward 3 (comprising areas east of Middle road, bounded by Serangoon Road and the Kallang River) (DSW, 1947: 71). By 1954, when the second survey was done, the figures have increased to 38% for wards 1 and 2, while remaining unchanged at 25% for ward 3 (Goh, 1956: 6869). These conditions are described in Barrington Kaye's (1960) Upper Nanking Street, arguably the first urban sociology study attempted in Singapore. Upper Nanking Street in the 1950s was one of the most congested neighbourhoods in the heart of Chinatown. Kaye's interviews in particular provide an enduring account of the hardships faced as residents' cope with cramped, spartan and often insanitary living conditions, unemployment and ill health.

A post war housing study conducted in 1947 showed that out of a population of 938,000, 72% were housed within the Central Area. New slums had already begun to flourish at the city fringes, as new immigrants continued to flow in (Teh, 1975:5). Fuelled by the 1947 Housing Committee's recommendation (1948:9) that the government provide funds for the creation of a housing programme and that the Singapore Improvement Trust should be empowered to implement the programme, the SIT began to take housing provision as an increasingly important function in the late 1940s and throughout 1950s. With the post

war housing needs rapidly growing, SIT began to concentrate on housing construction, completing 20,907 units between 1947 and 1959. Although far from adequate, about 9% of the population was already in public housing by 1959.

The People's Action Party (PAP) came into power in 1959 as a result of the decolonisation process that swept through Southeast Asia and the rest of the world in the years after the Second World War. The local government inherited an economy that had a vast commercial potential on the one hand,

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With the post war housing needs rapidly growing, SIT began to concentrate on housing construction, completing 20,907 units between 1947 and 1959.

and yet, due to a laissez faire administrative policy and minimal social expenditure, an island whose town area was congested and clearly in need of governmental intervention.

The issue of legitimacy and popular support in a transitional period between a colonial government and its local successor is aptly summed up by Thompson (1968:24):

The general problem of the period of transition is not the destruction of authority but the change of the basis of authentication of authority, without an intervening period of anarchy or lapse of authority. But the transfer was not only horizontal from an external bureaucratic elite to an indigenous one... It was a vertical transfer to the people in whose name and with whose active support the transfer of power is achieved.

And the task of gaining popular support had been an arduous one for the PAP in its first ten years of government. As Chan (1976:35) pointed out, the 1959 election was its first contest against more seasoned old parties which flourished under colonial tutelage, while the 1963 election was yet another test which was fought against a formidable communist fraction, the Barisan Socialis, which broke away from the PAP in 1961. At a period where rapid post war migration and increased fertility acted to put a strain on the existing housing stock, the promise of decent affordable housing formed an important part of PAP's strategy to gain popular support. The significance of housing in PAP's platform also lies in the fact that its major rival, the Barisan Socialis had strong support from the poorer working class segments through its close links with the students and the unions. Making housing available and affordable was thus

calculated to mobilise the support from this segment of the population behind the PAP.

Thus in the first five year plan (1960-1965) and for part of the second plan (1966-1970), much of the driving force behind the public housing development effort was the political survival of the ruling party. And housing as a visible (clusters of multistoried high-rises) durable commodity was an essential symbol in fostering loyalty among the ranks of the common people. In the success of the building effort the government was able to establish, in Thompson's terminology, the vertical linkage to the people, as one of the most basic and most pressing needs was met. This support was most visibly demonstrated in the election results where the biggest victories for the PAP were in the public housing estates (Vreeland et al., 1977:32).

The Housing and Development Board (HDB) was set up by the new government to take over the functions of its predecessor, SIT. The HDB building record, as noted by Gamer (1972: xvii, xviii) and Vreeland et. al (1978:29), was one of the major achievements and pride of the Singapore government. By the end of 1970, the HDB had completed a total of 117,225 units, (HDB AR 2015/16). The production figure for 1971-1980 was 251,489 units (HDB AR 2015/16). which more than doubled the output of the sixties. By 1965, the percentage of residents living in public housing has increased to 23.2%, 34.6% in 1970, and 67% in 1980.

After surpassing the 34.6% mark in percentage of residents living in public housing in 1970, the focus of housing provision essentially shifted from shelter for resettled families and the poor to that of provision for the masses. And as we will see in the following sections, the increasing

resident population living in public housing estates provided an opportunity for Singapore to solve social and political issues such as ethnic integration and nation building by tackling these issues at the public housing level.

2. Assessing the record

Public housing in Singapore has a fairly long history, evolving under two distinct phases: 43 years under a laissez faire colonial urban development phase (1927-1959) and a 56 year post colonial phase marked by heavy state intervention. It therefore is possible to compare these two approaches to public housing in terms of state interest and priorities, and in terms of different approaches to the housing question of affordable housing provision.

Singapore's public housing development under the two periods has provided fertile ground for comparative analyses. Several differing interpretations of public housing development in the two periods have emerged. Teh Cheang Wan (1969: 173) writing as the Chief Architect of the HDB pointed out that "the efforts of the SIT to solve the housing problem in the period 1927 to 1941 could not be regarded as successful"; adding that although the SIT began to build on a larger scale after the Second World War, the housing situation had by then become so acute that "the housing shortage had become one of the most serious problems in the new state". This view has since been repeated on a number of occasions by officials from the HDB (e.g. Teh, 1975: 1-5; Liu, 1982:133-134). The difference is especially compelling when statistics such as the number of units built over a period of time, or the percentage of population housed in public housing are used.

A number of academic researchers have provided an alternative interpretation, one that stressed the continuities that facilitated post-1960 attempts at housing provision. One consideration is the presence of a developed civil bureaucracy and its contribution to urban development. The administrative machinery for public amenities had a long period of operation, although the transition of management from foreign to local officials started only in the fifties, a few years before the change of government (Gamer, 1973:15, 16). Of direct significance to the housing issue is the creation of the Singapore Improvement Trust (SIT) in 1927. although efforts by SIT in its 27 years of operation looked insignificant by comparison with HDB's building record, Yeung (1973:45, 46) quite correctly pointed out that this was due largely in part to SIT's lack of statutory powers and funds to do its work. Gamer (1973: 14-15), who was appreciative of SIT's work, made his assessment on what SIT had already achieved, rather than its record compared with that of its successor:

"the Singapore Improvement Trust had established planning control over private development, purchased over 1,500 acres of undeveloped for housing and industrial development, and ' established 26 rural resettlement areas totalling over 5,000 acres. It had opened the Paya Lebar International Airport, completed construction of a major highway and bridge leading along the ocean into the heart of the city, and drafted rudimentary plans for a wide variety of development projects for the island'

Also of significance in this planning movement was the development of Queenstown in 1954, where it contained the first of Singapore's planned satellite towns containing public housing, schools, factories and recreational facilities. In evaluating SIT's role in the urban transformation that was to come, perhaps the most important factor was, in Yeung's (1973:46) words, SIT's "valuable store of experience". SIT, as an administrative entity cultivated and drew together an important blend of professionals: planners, architects, surveyors and engineers. Although not a substantial sum compared with post-1960 figures, the 20,000 or so units of public housing created, provided the experience of land acquisition and the handling of a variety of contractors in the building process, and more importantly, the experience of managing the housing stock once these were built.

Lastly a third interpretation suggests that the under-provision of public housing in the first period should not be seen as "the negligence of colonialism" (Pugh, 1985: 278). Pugh's (1985: 279) argument is that the British essentially followed the same course of housing reform in Britain, and Singapore experienced this path of development with some time lag.

It was the success of the HDB that prompted the comparison of achievement levels in official reports. And while SIT positive legacies in planning and expertise contributed to HDB's success (Gamer, 1972; Yeung, 1973), and while part of the SIT's slower pace has to be attributed to the new experience in public housing which meant that city management and housing authorities have to learn by trial and error (as suggested by Pugh, 1985: 185), the fact that the success of the HDB which looked even better when contrasted against the record by the SIT made such comparisons unavoidable in the late 1960s and early

1970s when the HDB housing programme outstripped what the SIT has done in its 32 year existence.

3. The Social Change which Public Housing Engendered in Singapore

For an increasing segment of the population, the 1970s marked a new era where a way of life was dramatically transformed. Nowhere was this more evident than in the move into public housing estates. The proliferation of relocation studies undertaken by lecturers and students in the Sociology Department left an important record of this experience. Tai (1988) and Ho (1993) have reviewed this large collection. Families moving into public housing estates were generally satisfied with the improved amenities offered by the HDB estates in the form of better access to schools, marketing and recreation. But these advantages were attained at the cost of higher prices in HDB estates and the loss of a sense of solidarity, mutual help and a warm social environment of urban and rural villages (Chang, 1975; Hassan, 1976b: 343345; Tai, 1988: 910). Some of the adjustments were managed through the development of community centres and residents' committees which function to help residents adjust to their new neighbourhoods (see Chapter 4).

HDB neighbourhoods are also different from traditional neighbourhoods in other ways. They are characterised by social and economic heterogeneity as the policy of the HDB (via its allocation policy and in planning for flats of different sizes within the same precinct) was aimed at ethnic and social class integration within the estate (see Chapter 3). Unlike low-rise villages where extended families can be accommodated via simple extensions to the existing premise, HDB

flats do not offer this facility. Subsequent policy revisions encouraged the formation of extended family units by giving priority in flat allocations to extended families and by changing the design to incorporate extended families ("granny flats"). However, the effectiveness of such changes in encouraging extended family residential units are being eroded by the greater desire on the part of newly formed families to live apart from their families of orientation. Consequently, the one family nucleus has increased from 71.5% in 1970, to 81% in 1980 to 84.6% in 1990 (Dept. of Statistics, 1992: 34).

The transition from older, traditional neighbourhoods to HDB estates and the accompanying adjustment process was largely over by the end of the 1970s. In 1980, close to 70% of the population were living in public housing. More importantly, for the younger generation who have grown up in HDB estates and know no alternatives, HDB neighbourhoods represent a familiar and intimate setting which do not require any adjustment. This does not mean that a sense of belonging to such estates has increased, as high residential mobility characterises HDB estates. The young get married and move out and the upwardly mobile choose larger premises with better amenities in newer HDB estates or they upgrade to private housing.

4. Public Housing Issues and Policies

From a planning perspective, the scale and the success of the public housing enabled a number of other objectives – slum clearance, central area redevelopment and the development of industry – to be achieved. Thus, while redevelopment is associated with the economic goals of developing a modern financial district along with industrial development, a key reason for the success of Singapore's urban renewal and slum clearance programme is the policy of providing alternative accommodation for the families and businesses affected. It was essential that the building programme kept pace with the redevelopment programme so that resettled families and businesses found homes and new premises. Just as important was a fully functional new town which had essential amenities like schools and markets and serviced by an efficient transport system. Local estimates indicate that the demolition of a traditional shophouse in the central area needed seven units of public housing to rehouse the families affected (Choe: 1975, 98). Thus, the pace of redevelopment could only proceed as fast as the building programme which ensured not just households to be resettled but also various small business operations to find new economically viable locations in the new public housing estates.

It was only after the housing shortage was reduced by the HDB's first 5 year building programme that a comprehensive programme

*In 1980, close to **70%** of the population were living in public housing.*

of urban renewal was launched, beginning with the creation of the· Lands Acquisition Act in 1966, giving compulsory acquisition powers to the government

The operation of the public housing and urban renewal programmes allowed for the gradual deconcentrating of the population from the central area. The first two building programmes (1960-65, 1966-70) essentially worked within the inner city/urban fringe area, because planners generally assumed that the bulk of the population would continue to seek employment in or near the core for the next few decades. This assumption permitted the HDB to concentrate on the primary problem of providing basic shelter without having also to devote resources in creating jobs and amenities in or hear near various projects.

Developments after the second phase like Bedok, Ang Mo Kio and Clementi are typically sited beyond the 5 mile city limit. Thus with some minor deviations, the major trend resulting from HDB developments is progressively to re-settle the population further away from the Central Area. With residential dispersion into the suburbs, the central area could be redeveloped for more specialised commercial and institutional uses.

Public housing estates in Singapore are not only constructed with commercial, social and recreational facilities, but also employment opportunities. Within each housing estate, some 10 to 15% of the land, usually at the periphery, is reserved for industrial use in order to tap the pool of labour from the housing estates (Pang and Khoo, 1975:241-242). These tend to be light, labor intensive and pollution free industries. Pang and Khoo (1975: 246) quoted a 1972 HDB employment survey which indicated several important characteristics. First, by the 1970s, workers in HDB estates account for 22% of the manufacturing work force in Singapore. Second, over half of the industrial workforce in HDB estates are employed by foreign firms which tend to be larger operations employing more workers. Third, an average of 58% of the workers in HDB industrial estates actually lived within the public housing estate which the industrial estate was located (see Pang and Khoo, Table 3).

Since 1961, HDB has completed more than 1 million units of public housing units for the people of Singapore. In addition, HDB towns are comprehensively planned to create a self-sufficient environment that is conducive for residents to live, work, play and learn. The planning of HDB towns is carried out in consultation with the relevant agencies and Ministries. Besides safeguarding land for housing which accounts for about 50% of a typical town, land is also set aside for supporting road network and a wide range of facilities (e.g. schools, shops, markets, libraries, community centres, parks, places of worship etc.) to meet the needs of the residents. By so doing, the agencies work together to provide the various facilities to meet the needs of the residents.

5. Introduction to the Monograph

Presently, Singapore's public housing system houses 82% of its population. The scale of the public housing system means that some of the key social problems in any society or in Singapore in particular, has to be tackled within its public housing system. In chapter 2, we look at the issue of the poor and vulnerable segments of Singapore society and the measures taken to house these populations. Likewise, the class and ethnic divisions of society require attempts at bridging and social mixing within public housing estates. This problem is explored in chapter 3. As a global city and city state, Singapore is open to diverse migrant flows and has a heterogeneous urban population. The task of community building is as important today as it was when Singapore became independent. Chapter 4 examines the role of community centers, resident committees and the role of neighbourhood amenities in enabling residents to interact with their neighbours and also develop a stronger place identity. Lastly, the physical housing stock which is built up over several decades require renewal to accommodate new residents, to ensure a better mix of old and new families, and to cater to new and changing aspirations of the population. Chapter 5 deals with the challenges of upgrading. In chapter 6, we sum up the achievements of Singapore's public housing system and its record of meeting the needs of the society.

*Over the last 56 years, HDB has completed more than **1 million units of public housing units** for the people of Singapore.*

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CHAPTER 2:

Social Housing

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1. Introduction

Social housing[2], or public rental housing in local terminology, is a critical but easily overlooked component of Singapore's public housing system. Today it is overshadowed by owner-occupied public housing which makes up 94% of the total public housing stock and accommodates 79% of the population (HDB, 2016a). Social housing, on the other hand, represents just 6% of all public housing units and caters for 3% of the population. However, historically, Singapore's comprehensive public housing system began as social housing. Social renting remains the primary housing option for low-income persons and is therefore an important part of the social welfare response to poverty. Its particular features and logics, alongside one of the world's largest owner-occupied housing programme driven by a combination of individual savings, public grants, and property market dynamics, also articulate the country's distinctive liberal welfare philosophy.

Compared to the social housing programmes in other advanced economies, public rental housing in Singapore stands out in many ways. As the country lacks the traditions and geographical scale for local government, social housing is owned and operated centrally as a unitary national programme, with the Housing and Development Board (HDB) responsible for developing, allocating, and managing all social housing. Housing units are provided directly instead of housing allowances or benefits, although there are rebates for some housing costs such as utilities. At 4% of the total housing stock, social housing stock in Singapore is lower than in many parts of Europe, where it reaches 32% in the Netherlands (Scanlon, Whitehead, & Arrigoitia, 2014), and in Hong Kong, where it is 29% (Hong Kong Housing Authority, 2017). While rents are lower than market rates, they rise steadily in line with incomes and families with much improved earnings are urged towards homeownership. Tenancies are kept short to signal that social housing is not a permanent arrangement, but in practice they are routinely renewed. Whereas sold flats, subsidised when first purchased from the HDB, are considered part of the social wage, public rental flats strictly target low-income persons and puts Singapore firmly in the category of dualist or residual social housing regimes (Harloe, 1995; Kemeny, 1995).

The rest of this chapter is divided into four sections. Section 2 reviews the history of social housing in Singapore, outlining three main phases in policy development. There are many references to sold public housing because the trajectory of social housing policy is closely related to the rise of homeownership. The section is kept fairly concise due to space constraints. A more thorough discussion of the history of public housing can be found in Chapter 1 of this

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2   Social housing is generally defined as housing that is allocated on the basis of need and at below market rents, although its ownership and management vary across countries (Scanlon, Whitehead, & Arrigoitia, 2014). The HDB's public rental housing programme, which is highly subsidised and targets persons with no other housing options, fulfils the function of social housing. There are no alternative suppliers of subsidised rental housing in Singapore, although several social service providers offer shelter and support for a small number of people facing more complex social issues, some of them in premises provided by the HDB.

report. Section 3 describes housing provision – the major features and operational details of the current social housing system, including housing distribution, quality, and allocation. Section 4 follows with an assessment of the impact of social housing in terms of access, affordability, housing experiences, and housing mobility. The conclusion summarises the chapter. The discussion here draws heavily from archival material and more recent policy documents. Where relevant, it also reports findings from a recent survey of public rental households in Singapore conducted by the author, hereafter referred to as the 2016 PRH survey.[3] All monetary figures are in Singapore dollars.

3   The survey was conducted in 2016 with 1,075 public rental households in 148 different blocks. The selection of blocks was proportionate to the geographical distribution of all rental housing blocks in Singapore. Within each block, households were selected using systematic sampling with a random start. The study was funded by National University of Singapore, Research Grant R-603-000-170-133.

2. Policy development

2.1 Urban development and basic rental housing:

Before 1960

The development of Singapore's earliest public housing was led by the Singapore Improvement Trust (SIT) which was established in 1927 by the British colonial administration. The SIT was initially responsible for planning and infrastructure rather than housing per se, as the government was concerned about urban slums around the city centre (Fraser, 1948). But the problem of housing shortage grew as improvement projects progressed and, by 1930, the SIT's mandate was expanded to include housing development (Straits Settlements, 1930). The housing built then was let to low-income families earning up to $400 per month (SIT, 1959).

The 1940s were a difficult period for the SIT as war damage increased pressure on the housing stock and senior SIT staff were imprisoned (CLC, 2016; Fraser, 1948). After the war, population growth further strained the public housing system while the SIT's plans were hampered by the lack of land and statutory constraints on resettlement (SIT, 1959; The Singapore Free Press, 1957). A Housing Committee in 1947 recommended a concerted building programme to meet housing needs (Housing Committee, 1948). Between 1947 and 1959, the SIT built some 20,000 flats that housed approximately 9% of the 1.6 million population (HDB, 1971). Yet this fell far short of demand and more than half a million people still lived in makeshift accommodation in slums and squatter settlements with no access to basic sanitation and other amenities (Hansard, 31 October 1985; SIT, 1959).

Over three decades, the SIT laid the foundations for public housing in Singapore, closely following a social housing model based on renting to low-income persons. But homeownership was also considered sporadically at the time. As early as 1936, a block of flats was built in the central precinct of Tiong Bahru with the intention of selling them (SIT, 1959). However, the plan was later abandoned as the target selling price could not be achieved. The sale of public housing continued to be discussed in subsequent years and in the 1950s, some public housing in the precinct of Queenstown were sold. The administration also encouraged private housing developers to build more housing, even though these were generally unaffordable to lower-income people. Thomas Mure Hart, the Financial Secretary then, declared that:

"The government is making every effort, through the agency of the Singapore Improvement Trust, to build as many houses and flats as possible for letting at low rents, but we consider it desirable that the opportunity should be given to members of the public in the lower income groups to buy their own homes... [The] main objective of the proposal is to foster a community of responsible home-owners, a community which will add to the strength and stability of the new Singapore which we are planning." (Hansard, 10 February 1956, col 1605–8).

In 1959, Singapore achieved self-government under the political leadership of a party that had campaigned on a manifesto prioritising full independence, employment, education, and low-cost housing (People's Action Party, 1959). Public housing was considered to be complementary rather than secondary to economic development. With this shift in policy motivation, public housing began to grow more quickly than ever before and the model of public housing soon changed in fundamental ways.

2.2 Universal homeownership and decline of rental housing:

1960s to 90s

Within a year, the new government replaced the colonial-era SIT with a new statutory body, the HDB, with the explicit mandate to expand the public housing system. Initially the HDB focused on providing rental housing, as the SIT did. They described their objective at the time as "building as many housing units at the shortest possible time and the lowest possible cost" (HDB, 1976, p. 9). The priority was to deliver quantity rather than quality in order to address the pressing housing shortage and ensure affordability to the public. It was readily acknowledged that housing standards had to be "austere". This plan was swiftly delivered. By the end of 1963, the HDB had completed 31,317 flats, surpassing its target of 26,521, and was able to declare that "any Singaporean citizen who satisfies the minimal qualifying conditions...will be housed within a matter of days provided the applicant is not over particular about the locality or the floor level of the flat which is allocated to him" (HDB, 1964, p. 1).

In 1964, there was a marked shift in public housing policy as policymakers decided to promote homeownership over public renting, making HDB flats available for purchase on a 99-year leasehold basis. The policy campaign was branded as "Home Ownership Scheme for the People". There have been different interpretations of the underlying policy motivations. The HDB pitched it as a move towards "a property-owning democracy" (HDB, 1965, p. 9). The Prime Minister argued that this would "give every citizen a stake in the country and its future... [If] every family owned its home, the country would be more stable" (Lee, 2000). It has been suggested that the commitment to a mortgage obliges individuals to remain employed, hence creating a disciplined workforce that is attractive to foreign investment and advantageous for the nation's sustained economic growth (Chua, 2014). This function of subsidised, widely accessible public housing has also been described as a social wage to ensure labour peace, at a time when other welfare provisions were meagre in Singapore (Deyo, 1992).

In practical terms, homeownership could only be realised with support from other policy measures. The first was a critical reform to the nation's mandatory savings scheme, the Central Provident Fund (CPF). The CPF was implemented in the 1950s as a defined contribution pension system based on individual accounts. But a reform in 1968 made it possible to withdraw some savings to pay for housing prior to retirement, putting homeownership within the financial reach of many families (HDB, 1969). Secondly, from 1970, there were measures to encourage and support existing tenants to purchase their rental flats. For instance, the down payment was reduced and later completely waived; the qualifying income ceiling to purchase housing was lifted; a range of fees were absorbed into the housing loan to lower initial payments; and the period of loan repayment was extended. The HDB also took on the role of mortgage provider,

offering loans to low-income people who would not have qualified for commercial bank loans. Applications to purchase flats surged from around 2,000 in 1967, just before the CPF reform, to 22,000 ten years later (HDB, 1968, 1978). Over the years, these schemes to promote homeownership have continued in various forms.

Homeownership based on the purchase of 3-room[4] and larger flats had taken off to such an extent that by 1981, the HDB decided to stop the sale of 1- and 2-room flats (HDB, 1982). This was soon followed by measures to cut the supply of social housing. In 1982, the construction of new rental flats was completely stopped, while new lettings of 3-room flats were discontinued even though 13,000 applicants remained on the waiting list for this category of flat, facing wait times that now stretched as long as ten years (HDB, 1983; Lee, 1982). These changes essentially split the public housing system into two tiers – social renting of an aging stock of the smallest flats (1- and 2-room), and ownership of a growing pool of larger flats (3-room and above). In some locations, as tenants moved out to purchased housing and created vacancies in rental blocks, the remaining tenants were relocated so that the original sites could be redeveloped (HDB, 1987). This relocation exercise

was also used as an opportunity to encourage the affected tenants to purchase their own housing instead of moving into another rental flat. In 1986, the HDB raised the eligibility age for rental housing from 21 to 29 years old (Hansard, 20 March 1986). The Minister at the time argued that this would "discourage young people from entrenching themselves in rental flats. With a working life of another 20 to 30 years and assistance from the Government, these young people can easily save enough money to become home owners…If we allow the young people to rent flats, then we defeat our objective" (col 764). This policy was reversed a few years later (HDB, 1990). On average, there were almost 6000 applications for rental housing per year in the 1980s (compared to 10,600 in the 1970s) and the waiting times for 1- and 2-room flats were 2 and 4.5 years respectively in 1984 (HDB, various years). But the policy position was that applicants on the waiting list could consider purchasing a flat instead if they wished to shorten the wait (Hansard, 13 March 1984). Curbing the supply of rental housing was therefore an active strategy to encourage ownership. In 1984, the government boldly announced a goal of 80% homeownership by 1989 and 100% by 1999 (Hansard, 25 February 1985).

Around the same time, rental housing became associated with social problems and individual deficits as various measures were introduced to help tenants purchase their first home. Parliamentary statements referred to the need for "thrift and self-discipline" among tenants (Hansard, 25 February 1985, col 15), observed that the "lower income group living in their cramped flats will become more and more detached from the mainstream of our society and it will remain a dark spot in our social fabric" (Hansard, 31 October 1985, col 541), and that "what they need to do is to perhaps cut down on smoking and drinking" in order to afford homeownership (Hansard, 17 March 1983, col 1040). This is a remarkable shift in the tone of social housing policy considering renting was the norm just over a decade earlier.

The enthusiasm for universal homeownership was somewhat checked in 1991 when the Prime Minister acknowledged that "it was not possible to achieve a 100 per cent home ownership rate because there would always be people whose incomes were too low, or who would be unable to save to buy their own flats" (Ibrahim et al., 1991). Instead the target homeownership rate was lowered to 95%[5]. The housing minister later announced that physical

4   In HDB's terminology for flat sizes, the living room is counted as a room. Hence "1-room flats" are in fact studio flats, "2-room flats" are one-bedroom flats, "3-room flats" are two-bedroom flats, and so on.

5   This target has never been reached. In recent years, homeownership rates have stabilized at around 90%. It is important to note that ownership figures do not reveal the extent to which family members may co-reside due to the lack of alternative housing options, including social renting.

improvements or "upgrading" will be carried out to older rental housing stock (Hansard, 28 June 1991; see Chapter 5). At the same time, efforts to incentivise housing purchase among existing tenants continued, with the Sale of Flats to Sitting Tenants Scheme in 1994 that offered discounts on housing prices, and the Rent and Purchase Scheme in 1999 for families to first rent a 3-room flat with a view to purchasing it later when they had the means (HDB, 1995, 2000).

By the end of the 1990s, the structure of public housing in Singapore had been completely transformed. In 1970, there were around 87,000 rental flats, made up mainly of 1-room (46%), 2-room (30%), and 3-room (22%) flats, and a small proportion of 4-room flats (2%) (HDB, 1971; Figure 1). There were just

around 31,000 sold flats, consisting mainly of 3-room flats (87%), and small proportions of 1-, 2-, and 4-room flats (2-8% each; Figure 2). By 2000, rental flats had dwindled to around 62,000 units, made up of 2-room (44%), 1-room (37%), and 3-room (19%) flats (HDB, 2001). The trend for sold flats went in the opposite direction, reaching a total of 790,000 units, or 25 times the number in 1970 (Figure 2). Among sold flats, 4-room flats (39%) had become the most common, followed by 3-room (28%) and 5-room (23%) flats. There was also a new category of premium flats (8%) with better amenities and the option to be privatised, catering for the middle class.

It is hard to avoid the perception that as two parts of the shared whole, owner-occupation developed at the

expense of social housing. While sold housing increased in quantity, diversity, and quality, and came to dominate the public housing landscape, the stock of social housing was whittled down. Over time, the size and appeal of the social housing sector diminished relative to sold housing and renting increasingly appeared to be an option of last resort. Much of this happened through a confluence of changes in public demand and deliberate policy design targeting rental housing, such as the reduction of supply, restriction to smaller flat types, and the discontinuation of construction as the existing housing stock aged. The suppression of social renting as the primary alternative to owner-occupation became a key strategy in the promotion of homeownership.

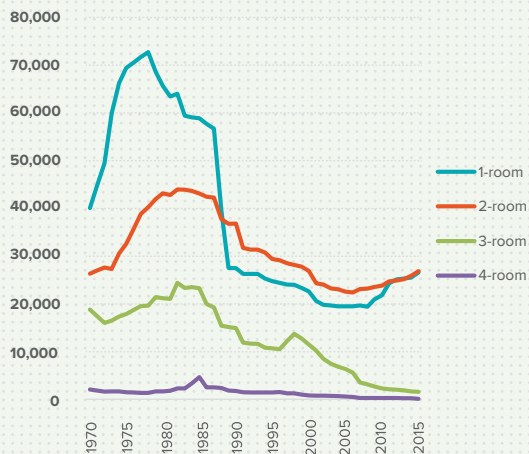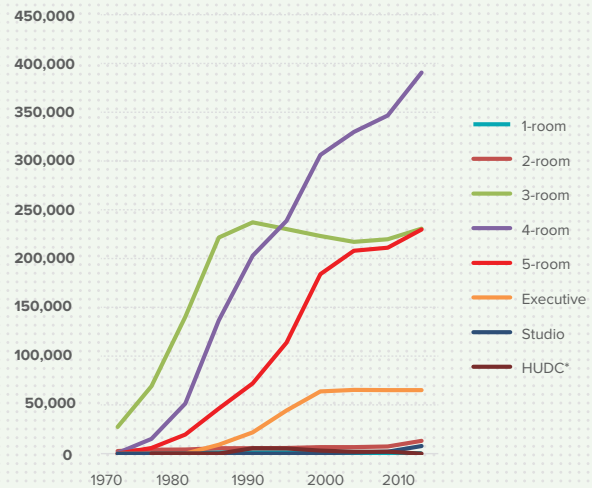**Figure 1:** Number of rental flats.
Source: HDB Annual Reports

Figure 2: Number of sold flats.
Source: HDB Annual Reports

* HUDC stands for Housing and Urban Development Company. HUDC flats are a premium category of public housing built in the 1970s and 1980s to cater for a rising middle class. All HUDC estates have since been privatised.

2.3 Policy pressures and recalibration:

2000s onwards

The 2000s began with a series of economic shocks in Singapore. Even before the effects of the 1997 Asian financial crisis had completely worn off, a slowdown in the technology sector and the September 11 attacks in the United States triggered a recession in 2001, followed by the outbreak of the Severe Acute Respiratory Syndrome (SARS) in the region which hit sectors such as hospitality and tourism (Choy, 2010). This affected public housing in many ways. Economic uncertainty heightened concerns about the risks of mortgage commitments and discouraged young people from entering the housing market as well as existing homeowners from moving to larger flats (Chua, 2014). There was also a noticeable shift in preference to smaller 3-room flats, which the HDB had stopped building in 1985 due to falling demand. At the lower end of the income distribution, concerns about affordability displaced demand from purchasing to renting, adding to the pressure on the existing rental housing stock. Policymakers therefore embarked on a careful but significant recalibration of the public housing system, in which social renting would occupy a larger role.

In 2003, the income ceiling to qualify for rental housing was almost doubled from $800 to $1500 per month (HDB, 2004). There was also greater attention to housing quality, with several refurbishment programmes targeting rental housing in the early 2000s. These were in addition to the upgrading that had taken place in neighbourhoods where the purchased flats were also undergoing refurbishment. But to encourage a move into purchased flats once tenants' economic situations improved, rents were graduated, with households earning between $801 and $1500 charged more than households earning up to $800. The Tenants' Priority Scheme was introduced to give priority to tenants who wished to purchase their own flats and a small percentage of flats were set aside for this purpose (HDB, 2007).

Then in 2006, the HDB announced that they would resume the building of new rental flats to meet the demand from low-income families (HDB, 2007). The target was to increase the 1- and 2-room rental housing stock from 42,000 in 2007 to 60,000 by 2017 (Hansard, 29 February 2016; Figure 1), an expansion of more than 40%. In fact, the need for rental housing was judged to be so acute that the HDB adopted two new measures. First, they began to convert larger unsold flats into smaller rental flats which could be let immediately (Hansard, 15 September 2008). Between 2007 and 2016, about 2,000 1- and 2-room rental flats became available in this way (HDB, personal communication, September 13, 2017). Another initiative was an Interim Rental Housing programme introduced in 2009 which catered for families needing urgent accommodation while waiting for the allocation of sold or public rental housing, for six months to a year, using old housing stock vacated and scheduled for demolition (HDB, 2010). The intention for this to be a short-term measure is reflected in the rule that two families must share a 3-room flat, which led to overcrowding, lack of privacy, and social conflict (Hansard, 14 February 2012). In recent years, the demand for social housing has remained strong. On average, the HDB receives requests from around 8,700 households for rental housing each year, of which 2,300 are successful (Hansard, 24 March 2016).[6] According to policymakers, the expansion of rental housing was a response to prevailing economic conditions, stagnating incomes at the bottom end, and demographic changes such as increasing numbers of divorces and elderly households (Hansard, 15 February 2007; 15 February 2008). However, the significance of this development goes beyond a reaction to cyclical economic pressures or macrosocial changes. The decision to build new rental housing effectively nullified the 1980s policy to suspend

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6   These numbers include both first-time applicants for social housing and those appealing against the rejection of their applications.

social housing construction and arrested a four decade-long decline of the rental housing sector as a proportion of the total housing stock, even increasing it marginally.

Changes in social housing policy must also be considered in light of parallel developments with sold housing. From the 1980s, the number of 4-room and larger flats increased steeply, while the stock of 2-room flats grew marginally and the proportion of 3-room flats in the housing stock in fact contracted as the construction of 3-room flats stopped completely between 1985 and 2004 (HDB, various years; Figure 2). Ownership therefore followed a distinct upward trajectory in terms of flat size. However, the trend reversed in the 2000s, as new 3-room flats became available again and new 2-room and studio flats were introduced. This was partly to cater for an ageing population with a larger number of elderly people wishing to live in smaller flats. For this group, a reform in 2015 allowed them to purchase 2-room flats on shorter

leases (MND & HDB, 2015). The smaller flats were also intended for younger, low-income persons. Altogether, these policy developments in the 2000s began to rebalance the public housing system towards more affordable and rental options, as well as narrow the cost gap between social renting and ownership. They also demonstrate innovation, most apparent in the launch of three mixed-tenure projects from 2014 onwards that combined rental and sold flats within the same blocks.

However, these changes do not amount to a decisive departure from the ideals of homeownership. Even as the supply of rental housing was ramped up in recent years, the housing minister in 2011 reiterated that:

"As we build more rental flats, we must ensure that they are safeguarded for poor and needy households who cannot afford to own a home, have no family support, and do not have other housing options. It is important that HDB maintains strict rules and

criteria... [Whatever] we do, we must not unwittingly incentivise the growth of these rental blocks. We need some, but I think if you make it too easy for rental units to be accessed, you can unwittingly create other kinds of problems... [If] you ask me, I would prefer 'zero rental units', meaning everybody becomes a home-owner... That I think should always be our target." (Hansard, 20 October 2011)

In 2016, the HDB introduced the latest policy to encourage tenants to purchase housing. Known as the Fresh Start Housing Scheme, it provides a housing loan and generous subsidies to tenants who wish to buy a 2-room flat (HDB, 2017a). The scheme also imposes a range of qualifying criteria – the children must attend school regularly, the parents must maintain continuous employment, and the family must accept supervision by social workers for 5 years after taking ownership of the flat. Furthermore, unlike normal sold flats, those purchased under this scheme carry a shorter lease and must be occupied for a longer period, 20 years instead of 5 years, before they can be sold on the open market. Echoing the policy narrative of the 1980s about poverty and personal responsibility, the housing minister suggested that "we are making a major move for these families by giving them another grant. So I think it's fair they must be able to show a certain level of commitment towards homeownership" (Heng, 2016). This has been a careful recalibration of social housing policy and should not be mistaken for paradigmatic change.

3. Policy provision

3.1 Distribution

In 2016, there were 274 blocks of 55,131 public rental flats in Singapore, consisting of 26,585 1-room flats, 26,849 2-room flats, 1,586 3-room flats, and 111 4-room flats (HDB, 2016a, 2017b). Rental blocks are mostly sited as adjacent pairs or even singly, among other blocks of sold flats, as an intentional strategy to promote socioeconomic diversity and avoid the formation of large, low-income neighbourhoods. The concentration of social housing as seen in large public housing projects in the United States and council estates in the UK is therefore not a feature in Singapore's housing landscape. The largest rental cluster consists of just nine adjacent blocks in the same residential town. Three other towns have seven to ten rental housing blocks sited in close proximity but not immediately adjacent.

The small stock of rental housing is dispersed across all towns except one, Bukit Timah, an area consisting mainly of expensive private residences. The oldest towns developed in the 1970s and before have the highest proportions of rental housing, as much as 25% in one town, and the lowest proportions of 5-room and larger flats. On the other hand, the youngest towns established in the 1990s have very small numbers of rental flats and some of the highest shares of large flat types. On average, rental housing is 12% of the housing stock in the oldest towns, compared to just 3% in the newest ones. This uneven geographical distribution of rental housing reflects the historical pattern of social housing development and mirrors differences in socioeconomic class across residential towns.

Traditionally there are no mixed-tenure housing blocks by design. In practice, tenure became mixed in places where tenants bought over the flats they were occupying; where 3-room rental flats were released for sale after the tenants moved out as this flat type was phased out from the social housing programme; and in one-off housing developments to accommodate tenants relocated from demolished social housing estates, among whom some may opt to own their new flats. Otherwise rental flats generally exist only in all-rental blocks with no purchased housing. But in 2014, the first integrated block of mixed-tenure housing was introduced at Marsiling in the north of Singapore with 241 sold flats and 42 rental flats (HDB, 2014a, 2016b). This was followed by a second block in 2016 at Bukit Batok in the western region with 186 sold flats and 35 rental flats, and the third in 2017 at Sengkang in the north-eastern region with 143 sold flats and 39 rental flats (HDB, personal communication, December 5, 2017). Rental flats represent 15–20% of the units in each block, located among smaller sold flats on the lower floors. Initially there was some uncertainty about the demand for sold flats in these mixed-tenure blocks as this configuration of housing had not been attempted before. But according to the HDB (personal communication, September 13, 2017), the take-up rate of sold flats in these blocks did not seem to be affected by co-location with rental housing.

3.2 Quality

Among other factors, housing quality depends on the age, size, and general physical condition of the flat. The rental housing stock grew steadily from about 22,000 in 1960 to a peak of 135,000 in 1982, when the construction of rental flats stopped (HDB, various years). This was an expansion of more than six times in a little over two decades. Thereafter, through relocation and demolition, this rental stock was gradually cut down to less than 50,000 by 2008, when new rental flats became available again for the first time in 25 years. Around three quarters of the current rental housing stock are therefore more than four decades old, dating back to at least the 1970s.

Recently built social housing sited among sold flats. © HDB

In the early years, rental housing came in a variety of sizes. For instance, in 1961, HDB reported managing 1- to 5-room flats, with the most common being 2- and 3-room flats (HDB, 1962). By the 1970s, as the homeownership programme began to take off, rental housing came to be dominated by smaller flat types, with 1-room flats accounting for around half of the rental housing stock, 2-room flats around a third, 3-room flats below a fifth, and 4-room flats no more than 2% (HDB, various years; Figure 1). After the HDB stopped letting 3-room flats in the 1980s, the share of larger rental flats tapered off, while the proportion of 2-room flats rose steadily. These changes came to shape the composition of the rental housing stock today. In 2015, 1- and 2-room flats each represented almost half of all rental housing, while 3-room flats made up the remaining 3%. Over time the average rental flat became smaller and there were fewer housing types to choose from. Typically, 1- and 2-room rental flats measure 30 and 40 square metres respectively, compared to 3- to 5-room sold flats which occupy between 65 and 110 square metres (HDB, 2013a, 2016a).

The maintenance and renewal of rental flats can be challenging as the stock includes some of the oldest public housing in Singapore. As mentioned, various rental blocks have been refurbished over the years alongside sold housing in regular upgrading programmes. While homeowners take part in polls to decide whether their block would participate in upgrading as they had to pay a portion of the costs, upgrading for rental housing was decided by the government as tenants were not required to pay. There were other upgrading programmes targeting rental flats. For instance, a programme known as Lift Improvement and Facilities Enhancement, or Project LIFE, was piloted in 1993 and later extended to around 50 rental blocks with a high density of older residents (HDB, 1995). It

Interior of rental flat prior to occupation. © HDB

constructed lift landings on all floors, installed grab-bars in toilets, and introduced a pull-cord alarm system in every flat that was monitored by a local social service provider who could provide assistance to elderly residents in case of emergencies at home. Another Rental Flat Upgrading Project was implemented in 2001 and 2006 to install ceramic tile flooring and refurbish toilets across some 70 blocks of rental flats (HDB, 2002; Tan, 2006).

3.3 Allocation
The basic eligibility requirements for renting public housing are Singaporean citizenship and a minimum age of 21 (HDB, 2017c). In addition, there are three other types of eligibility criteria based on the applicant's family, housing history, and income.

In support of an overarching policy commitment to promote particular family norms, eligibility depends on a set of rules related to marital status, family form, and family resources. Applications are only accepted from people in four family situations regarded as containing a "proper

family nucleus" (HDB, 2013b): (i) legally engaged or married couples; (ii) widowed or divorced persons with children under their legal custody; (iii) unmarried adults and their parents; and (iv) unmarried adults and their siblings if the parents are deceased. Unmarried persons may also qualify for public rental housing in their own right if they are at least 35 years old and are prepared to share a rental flat with another single person, whereas tenants in the four main categories above qualify from the age of 21 and do not have to share a flat with strangers. This higher age requirement for unmarried persons has been steadily lowered over the years. Additionally, older people applying for rental housing have to demonstrate that their adult children have no spare rooms in their own homes and are unable to finance separate housing arrangements for the parents, although the definitions and thresholds of these criteria are not disclosed. This constitutes a form of means-testing that extends to non-co-resident children and their wealth.

In 2017, persons who had sold off a purchased HDB flat were not eligible to rent public housing for 30 months. This "debarment rule" was introduced in 1993 to suppress demand for rental housing as the stock was being cut back (HDB, 1994). There was also a policy position that the debarment helped to safeguard resources. As explained by a policymaker, "those who sell away their flats have already enjoyed a subsidy from the Government. To come back to the rental flats to enjoy a second subsidy, that is not what we want to encourage" (Hansard, 30 July 1993, col 354–5). Persons who had sold two flats purchased directly from the HDB or who had previously owned a private property either locally or overseas were permanently barred from public renting. Through these rules, eligibility assessment took into account not just current resources and means, but also how people made housing and financial decisions in the past[7].

In 2017, applicants' total monthly household income – regardless of household size – must not exceed $1,500. This income ceiling is not strictly pegged to average

incomes or prices, or based on any disclosed principles. According to the HDB (personal communication, December 5, 2017), the ceiling is regularly reviewed. But this has not led to regular revisions. Instead revisions happen infrequently and in large steps. The last revision was in 2003 from $800 to $1500 (HDB, 2004), and before that from $500 to $800 in 1982 (HDB, 1983). The HDB has shared that the income ceiling "serves as a guide" as they "evaluate holistically whether the family can or cannot afford other forms of housing before considering them for heavily subsidised public rental flats" (HDB, personal communication, December 5, 2017). Nonetheless in real terms, the income threshold has become stricter over time. In 2003, the ceiling of $1,500 was equivalent to 33% of median monthly household income from work (based on Department of Statistics, 2014). By 2017, it was just 17% (based on Department of Statistics, 2017a). Not all social housing systems impose an income limit. For instance, an income test is not carried out in Sweden, Denmark, the Netherlands, Scotland, and England (Scanlon, Whitehead, & Arrigoitia, 2014).

In other places, the allocation of social housing is often based on housing needs instead of, or in addition to, income. For instance, in

England, the law requires local authorities to give priority to people who are living in overcrowded or insanitary conditions, who are homeless, or who need social housing on medical or welfare grounds, including disability (Wilson & Barton, 2017). Local authorities may then categorise applicants into different bands based on severity of housing need. Remarkably, Singapore's social housing eligibility criteria for assessing individual applications do not refer explicitly to even basic housing needs based on current physical living conditions. Instead, applicants are assessed in terms of their family structure and support, housing history, and level of income. Those who meet the criteria then join a waiting list. While priority allocation and interim rental housing may be granted to families assessed to be in urgent need of accommodation (HDB, personal communication, September 13, 2017), rights to social housing on the basis of housing needs are nevertheless not acknowledged in the formal criteria. This is unusual considering that allocation according to "a socially determined level of need" is a defining trait of social housing (Haffner et al., 2009, p. 235).

Applicants are required to submit various documents in person at the HDB office as evidence of their identity, citizenship, marital status, familial ties to other intended occupiers of the flat, and income (HDB, 2017d). They may choose to live in any one of four large geographical zones and a specific flat from among those available in that zone. The HDB officer then makes an assessment and, if necessary, advises applicants on an alternative location if the one they chose has a long waiting list. Persons who cancel their applications after two offers have been made are disqualified from public renting for a year. Successful applications lead to a 2-year tenancy which is not automatically renewed. Tenants must apply for a renewal of tenancy in order to extend their stay.

7   At the time of writing (2019), these debarment criteria have been removed from official communication and the rules for debarment are no longer published.

Public housing apartments in the Punggol District, Singapore.
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4. Policy impact

4.1 Access

Waiting times for rental flats reflect both the demand and supply of social housing, as well as sold flats. In the 1980s, applicants waited 2 to 5 years to be allocated a rental flat (*Hansard,* 17 March 1983, 20 December 1983). As homeownership gained popularity and the demand for social housing waned, waiting times fell to less than a year in the early 2000s (*Hansard*, 18 February 2005). However, problems with the affordability of sold flats and a growth in rental demand soon led to a sharp rise in waiting times, peaking at 21 months in 2008 (*Hansard,* 05 March 2010). In recent years, as the supply of rental housing was ramped up and various measures dampened the prices of sold flats, making them more affordable, waiting times for rental flats have fallen below 6 months (*Hansard*, 11 March 2015, 24 March 2016). On average, from 2008 onwards, waiting times have been around 9 months (*Hansard*, 03 March 2011, 02 March 2012, 16 September 2013, 10 March 2014).

The wait is sometimes due to ethnic quotas. Like for sold housing, these quotas are meant to prevent ethnic enclaves from developing in residential neighbourhoods (see Chapter 3). Officially, in each block of rental flats, no more than 87% of units may be allocated to Chinese households, 25% to Malays, and 15% to Indians and other ethnic groups (*Hansard*, 10 July 2012). Where necessary, these quotas may be pushed up by 10 percentage points to respond to demand. Recent figures show that the Malay population have been overrepresented in the social housing sector. They make up 13% of the national population but 36% of the social housing population (Department of Statistics, 2017b; HDB, 2014b). Where the quota for an applicant's ethnic

In each block of rental flats, no more than

87%

of units may be allocated **to Chinese** households

25%

to Malays

15%

to Indians and **other ethnic groups**

(Hansard, 10 July 2012).
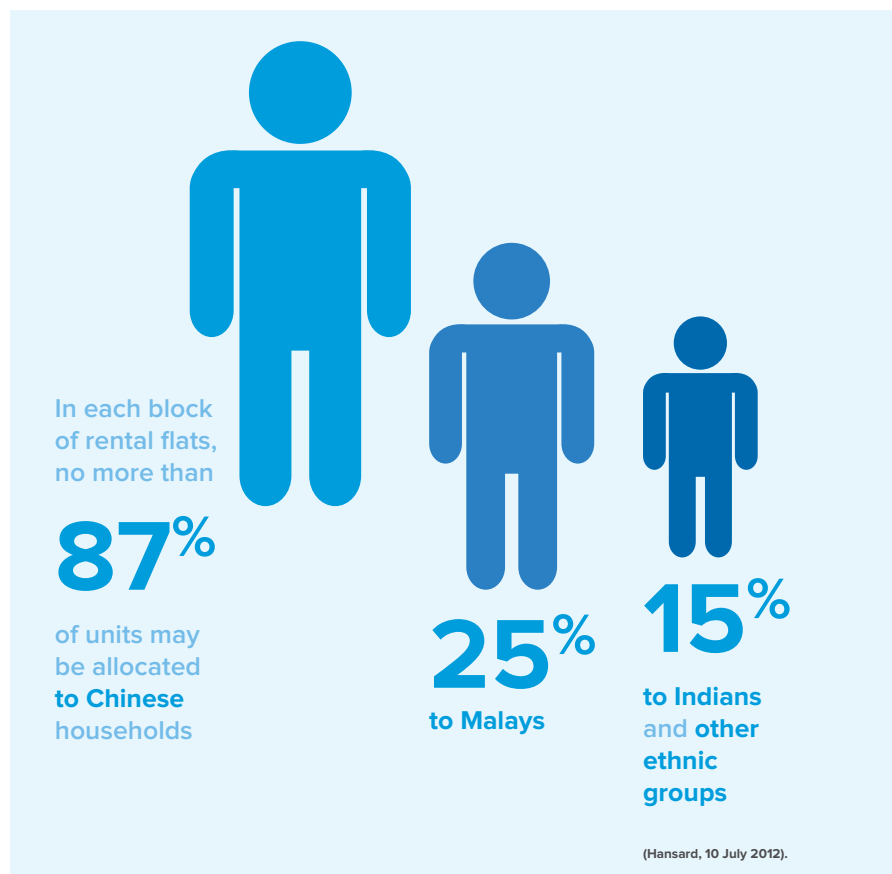
group has been reached in a particular locality, there will be a longer wait. This has affected Malay and Indian more than Chinese applicants. In 2012, the average waiting time was 7 months for Malays, 6 months for Indians and other ethnicities, and 4 months for the Chinese (*Hansard,* 10 July 2012).

Singapore's public rental waiting times in recent years compare favourably with those of other social housing systems. These can vary widely. The average waiting time is 3-5 years in Hong Kong (Hong Kong Housing Authority, 2017b), 4 years in Ontario, Canada

(Ontario Non-Profit Housing Association, 2016), 4-9 years in the London Borough of Lambeth, UK (Lambeth Council, 2016), and more than 10 years in some parts of New South Wales, Australia (Housing Pathways, 2017). However, waiting times are not always a precise measure of unmet housing demand and simple comparisons like this do not fully reveal the complex differences across housing systems. In particular, the stringency of eligibility criteria strongly influences waiting times since housing rules that let more people through inevitably generate longer waiting lists. In England, it was observed that the

Localism Act 2011 triggered a sharp fall in the number of people on waiting lists as it allowed local authorities to introduce new local residence requirements as a qualifying condition for social housing (Wilson & Barton, 2017).

Even before joining the waiting list, the eligibility criteria prevent access to social housing in a range of instances. Divorced persons have had difficulty transiting to public rental housing due to previous debarment rules (AWARE, 2016). Unmarried parents find themselves particularly vulnerable as they are regarded as single persons under housing rules rather than family units even though they have children (*Hansard*, 7 March 2017). Larger families are disadvantaged by the income limit as it is applied to total rather than per capita household income (*Hansard*, 1 March 2017). The policy response has been to manage these matters on a case-by-case basis, even though they are not isolated instances. In fact, from 2015 to 2017, nearly 2,000 single parents were allocated rental housing (*Hansard*, 7 March 2017). A discretionary approach allows the HDB to operate with greater flexibility and relax the rules on compassionate grounds for cases deemed deserving. But it is resource-intensive to assess large numbers of appeals in this manner. There are also concerns with consistency and transparency as it is not disclosed how appeals are adjudicated, for instance, who are responsible for making decisions, what criteria and considerations they adopt, and whether the same process is applied every time.[8]

4.2 Affordability

Table 1: Social housing rental rates, 2017, Singapore dollars

Total monthly household income	Housing history		Flat type	
			One-room	Two-room
$800 or less	a)	Have not owned subsidised flat or received any housing subsidy	$26-$33	$44-75
	b)	Have owned subsidised flat or received housing subsidy	$90-$123	$123-$165
$801 to $1500	c)	Have not owned subsidised flat or received any housing subsidy	$90-$123	$123-$165
	d)	Have owned subsidised flat or received housing subsidy	$150-$205	$205-$275

Source: *http://www.hdb.gov.sg/cs/infoweb/residential/renting-a-flat/renting-from-hdb/public-rental-scheme/rents-and-deposits*

> **Note:** *Applicants with total household income greater than $1500 or who have owned more than one subsidised flat are not eligible for public rental flats.*

As shown in Table 1, current rental rates are differentiated using flat type, housing history, and total monthly household income. Part of this rental structure reflects the market logic that larger flats and higher incomes should attract higher rents. In the HDB's words, "the revised rent structure would ensure rental subsidies were targeted at low-income families that had few alternative housing options, and encourage tenants of greater financial means to opt for other housing options" (HDB, 2007, p. 29). From 2006, persons who had sold a flat that was bought directly from the HDB, or who had enjoyed a housing subsidy, had to pay higher rents "to ensure equitable distribution of public housing subsidies".

The principles for setting the specific rates have not always been the same. In the 1960s, when renting was the norm, the rates were set to ensure affordability. Specifically, the government aimed for rents to be no more than 20% of the monthly incomes of working households (HDB, 1964). In 1976, it was reported that, on average, rents were below 15% of monthly family incomes (HDB, 1976). Current rent levels are based on a set of percentages established in the mid-2000s. In Table 1, the rates in row (a) are basic rents that have not been revised since 1979; rows (b) and (c) are 30% of market rents in 2005; and row (d) 50% (HDB, personal communication, September 13, 2017). As tenants' incomes improve, their rents too are raised when they renew their tenancies.[9] While sitting tenants

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8   According to publicly available information, the HDB depends on internal guidelines and a HDB Appeals Committee to review appeals for public housing matters (Choo, 2014). But the committee's composition, mandate, and work process are not known.

9   As 1-room flats are almost entirely meant for social housing and therefore not sold and sublet on the open market, while the subletting of 2-room flats was very limited until recent years, social rent levels are mathematical derivations from, rather than strict proportions of, market rents.

are not evicted when their incomes grow past the eligibility ceiling of $1500, they are charged progressively higher rents as a way to reduce the gap between public and market renting in order to encourage a move to ownership. Tenants with household incomes above $1500 and up to $2000 are charged 70% of 2005 market rents, while those with incomes above $2000 are charged 90% of market rents. The absolute rental rates for tenants with incomes above $1500 are not published.

There is no regular schedule for revising either absolute rent levels or the formulas from which they are derived. So, it is not known when the current rent structure may change. In fact, the lowest current rates have remained the same for several decades. In 1962, 1- and 2-room flats were rented for $20 and $40 per month respectively (HDB, 1963). With the introduction of slightly larger 1-room flats in 1966 and rent adjustment in 1979, the cheapest rent was revised to $26 per month, which is still the lowest possible rent for social housing today.

While rents at the bottom may appear to be affordable, the author's 2016 PRH survey found that the average rent-to-income ratio was 14% and that arrears continue to be a challenge for some tenants. Up to 22% of tenants reported having rental arrears. Arrears were more common among households made up of adults with children below 21 years old. A third of these households had rental arrears compared to 7% of households with elderly persons only. This may be partly due to higher rents. On average, households comprising adults and children paid $172 in rent per month, while elderly person households paid just $57. There has also been concern that rents that rise in line with income gains may create a disincentive to work effort and economic advancement. Therefore in 2013, the HDB introduced a 2-year rent freeze for

tenants crossing the $800 income threshold (Chang, 2013). However, the problem has not been addressed for tenants whose incomes just exceed $1500.

4.3 Experience
The 2016 PRH survey found that, on the whole, tenants felt very positive about their general housing conditions. On a four-point scale, over 90% of tenants reported being either satisfied or very satisfied with their rental flats and their neighbourhood in general. More than 90% also said that they felt safe in their neighbourhoods. When questions were asked about specific aspects of their living environment, the results showed more variation but were still highly positive. For instance, 87% were satisfied with the size of their flat, 85% with leisure spaces in the neighbourhood, and 83% with the number of rooms in the flat. This is in spite of the fact that social tenants generally enjoy less living space than homeowners. Based on typical flat sizes and the average number of household members by flat type in 2013 (HDB, 2014b, various years), the floor area per person is 16.5 and 17.4 square metres respectively in 1- and 2-room flats, compared to 23.4 square metres in 3-room flats, 25.1 square metres in 4-room flats, and 28.3 square metres in 5-room flats. However, there were clear concerns about public hygiene. The cleanliness and maintenance of the housing estate drew the lowest satisfaction rating of 74%. Furthermore, 49% of tenants found urination in public spaces to be a problem, 42% reported littering, and 27% observed clutter along common corridors. In contrast, in a recent HDB (2014b) survey of the general public housing population, the percentages of residents reporting these three problems were just 9%, 21%, and 6% respectively.

Notwithstanding high levels of housing satisfaction, the tenants also felt anxious

about their housing situations. More than half of the respondents in the 2016 PRH survey said that they worried about getting stable housing either sometimes or all the time. The most common sources of help with housing problems were the local Member of Parliament (with 52% of tenants having visited their local MP), followed by the neighbourhood Family Service Centre[10] (FSC, 40%), and the HDB (15%). Neighbours also appear to be an important source of social support. About 87% of the tenants reported satisfaction with their neighbours. Compared to the general public housing population (HDB, 2014b), social housing tenants were more likely to have casual conversations with neighbours, exchange food or gifts, visit one another, help to buy groceries and look after children, and borrow or lend household items at least once a week. At the same time, 26% of the tenants also found noise from neighbours to be a problem while 11% said that they felt a lack of privacy. Social housing communities seem to enjoy denser and stronger social ties compared to the rest of the public housing system, although living in tight spaces within high-density housing blocks may make mutual accommodation more challenging.

4.4 Mobility
Even with the eager promotion of homeownership over the years, on average, each tenant lives in social housing for 11 years (*Hansard*, 16 September 2013). This figure is likely to conceal wide differences between some younger families who move out within a short time once they have accumulated sufficient resources to purchase a flat and many elderly tenants who live in

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10   The FSCs are a nationwide network of non-profit organisations that are funded by the government to provide social work services in residential neighbourhoods.

rental housing for a much longer period. The 2016 PRH survey also found that about 40% of tenants had already been living in public rental housing 20 years before. Around a third of the tenants expected to move out of public rental housing within 5 years, with most of them planning to move into purchased HDB flats. The most common reason for moving was wanting a larger flat. On the other hand, among tenants who did not plan to purchase their own housing, 75% of them cited affordability as the reason and 14% said that they did not want to take on debt. While financial means are clearly a primary consideration in housing decisions, there may again be differences within the tenant population. Elderly tenants appear more settled in public rental housing. They reported higher satisfaction with their housing conditions and 77% considered social housing "ideal". Families made up of adults and children, however, were generally less satisfied with rental housing conditions and 69% considered a purchased HDB flat as the ideal housing arrangement. Housing experience and choice may reflect an individual's life stage, aspirations, as well as economic resources.

Long stays in social housing and affordability concerns can be appreciated by examining the costs of exit from social housing. One alternative to public rental housing is private renting. In 2017, renting a 2-room flat on the open market costs around $1,500 per month, more than five times the highest rate for social renting (HDB, 2017e). The next bigger flat type, a 3-room flat, costs between $1,500 and $2,200 to rent on the open market, depending on location. This wide gap between public and open market rentals may present a serious barrier to leaving social housing.

The second option is to purchase a HDB flat, since ownership of private housing is far too costly to consider as the immediate alternative to social renting. The cost of owning a HDB flat depends on many factors, such as the price of new flats available at a particular time; the individual's income and savings, which determine housing loan eligibility and amount; and the applicant's age, which affects the maximum length of mortgage loan. Critically it also depends on the amount of housing grants that one qualifies for. These are generous but governed by strict criteria. In 2017, the two main housing grants provide up to $80,000 per household (HDB, 2017f), while the selling prices of 2-room flats ranged from $73,000 to $259,000, and 3-room flats from $145,000 to $398,000 (HDB, 2017g). However only persons who have not previously purchased a flat directly from HDB or using housing grants, and who have been in continuous employment in the preceding 12 months are eligible. The 2016 PRH survey found that about 9% of tenants or their spouse had owned a HDB flat in the last 20 years, even though not all of them might have purchased these flats directly from the HDB. Unstable work was also a problem, with 43% of households receiving no work income and

almost 30% of main breadwinners in part-time, casual, or informal work. In other words, many tenants may not qualify for grants.

Table 2 illustrates the costs of purchasing a HDB flat. As a base case, a 30-year-old couple who plan to buy a 2-room flat costing $90,000, have $30,000 in CPF savings, and do not qualify for any housing grants, can expect to pay $279 per month by the HDB's (2017h) estimation. The table also shows how the estimated cost of monthly mortgage repayments will rise under other assumptions, such as older age, less savings, a larger flat type, and all three variations combined. Among tenant households, the median monthly household income is $950 (2016 PRH survey). At this income level, even the base case scenario that incurs $279 per month may be challenging. Moreover, purchasing a 2-room flat – the same size as a rental flat – may not bring noticeable improvements to the living environment. For households that would like more living space, the next bigger flat type costing $647 per month is clearly out of reach at a monthly income of $950. Mortgages also constitute a significant financial risk to tenants who are in unstable employment.

Table 2: Estimated monthly cost of homeownership

Base case	Monthly repayment
30 years old, $30,000 savings, 2-room HDB flat costing $90,000, HDB loan at 2.6% interest per annum	$279
Variations	
(a) 50 years old	$393
(b) $10,000 savings	$356
(c) 3-room flat costing $170,000	$647
(a), (b), and (c)	$750

Based on: https://services2.hdb.gov.sg/webapp/BP13FINPLAN1/BP13FINSMain

5. Conclusion

Singapore's social housing programme can look back on a number of achievements. The ramping up of the public rental housing stock by more than six times during 1960-1982 is one of them and reflects the HDB's administrative capacity and resolve. Up to the present day, the lowest rents have been kept far below market rates. Even though qualifying is difficult, once accepted, applicants do not have to wait long to be allocated their flats. Tenants were on the whole satisfied with their housing experiences apart from concerns about certain aspects of the physical environment and seem to have built strong ties with their local community. Tenancies, though short, are routinely renewed and there have been no documented instances of eviction by the HDB. Some tenants were worried about their long-term housing prospects, but others felt settled and considered social housing their home. In the face of mounting pressures in the 2000s, policymakers were willing to perform a U-turn by restarting the construction of rental housing after a hiatus of 25 years. The introduction of mixed-tenure housing most recently will create new opportunities for social diversity. This phase of renewed policy interest in social housing will ensure the availability of modern rental flats comparable to the standards if not the size of sold flats in the years to come.

At the same time, serious challenges remain. Ironically, the yielding of severe housing shortage to the HDB's exceptionally efficient building programme in the initial years also prompted a swift transition to the homeownership campaign and, by implication, the decline of social housing. The halting of social housing construction in 1982 and the subsequent reduction of the social housing stock would have many consequences. The most obvious is the bifurcation of the public housing system over time into two tiers – newer, larger sold flats, and older, smaller rental flats. The 100% homeownership declaration, though never achieved, was a commitment to "zero rental units" or the eradication of social housing. As sold housing continued to innovate and build upwards towards near-private housing options, rental housing became noticeably inferior in terms of diversity and quality. This residualisation of rental housing was at times matched by a sharp policy discourse about poverty and personal endeavor, as well as stringent and discretionary allocation mechanisms to gate-keep the limited housing stock. One of the more surprising observations is that the eligibility criteria for social housing in Singapore do not mention housing needs at all, focusing instead on conserving the housing stock, promoting family norms, and evaluating individuals' past housing decisions. The restriction of social housing to the smallest, cheapest flat types leaves a cost gap between social renting and purchase, and makes the step up to ownership even harder, although the increasing availability of smaller types of sold flat will help to smoothen the continuum of housing options. Many of these are deeply embedded structural issues which will not be easy to redress. They also embody some of the central dilemmas of the liberal welfare state, where the dominance of market principles and a philosophy of self-reliance sometimes make it difficult to access assistance and lower the chances for social mobility.

Given these challenges, what policy lessons might the Singapore case offer? In the mature European welfare states, the history of social housing has followed an upward post-war trajectory of reconstruction and social housing expansion up to the 1980s, when a wave of privatization inspired by neoliberalism led to the largescale reduction of housing stocks, reinforced in recent years by the strain of fiscal debt and austerity (Elsinga, Stephens, & Knorr-Siedow, 2014). There are also unique national experiences. In the UK, the stopping of housing construction and the loss of housing stock through the Right to Buy scheme were major factors in the decline of social housing (Malpass, 2014). Singapore seems to be ahead in terms of residualisation, having embarked on a homeownership drive a decade earlier, achieved a very high homeownership rate, and reduced the stock of social housing extremely efficiently. Some of the problems discussed in this chapter therefore illustrate the possible consequences of going down this path. However, innovations such as the dispersal of public rental blocks across different residential neighbourhoods are perhaps transferrable. In Singapore, this may have helped to lower the visibility of social housing and reduced its association with neighbourhood deterioration and poverty concentration. More importantly, the Singapore case shows that it is possible to reverse a long-term decline in social housing even in a society wholly committed to homeownership, and indicates the enduring potential of social housing to contribute to social stability in times of economic insecurity.

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CHAPTER 3:

Public Housing Policy and Social Mixing: Promoting Social Integration along the Dimensions of Race, Class, Age and Citizenship Status

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1. Introduction

Public housing in Singapore is more than just about providing a roof over the head. It is about having decent, affordable homes with ample domestic and public or social space, sanitary living conditions, convenient access to sufficient amenities and transportation, easy connections to locations outside of town, among other things (Teh, 1969:175). Beyond these features of physical comfort, public housing is expected to serve the national interest, that of strengthening national identity and social integration and bonding (Hill and Lian, 1995:113), which would engender a more stable and secure living environment and harmonious community and in turn a more resilient society.

Undoubtedly, both the physical and the social aspects are related insofar as decent housing as described above reduces the probability of unhealthy competition for, and generating conflict over, space and amenities, while social integration creates social capital, mutual trust and support, and enhances sense of belonging and community and national identity. Moreover, the design and layout of apartment blocks and housing precincts, neighbourhoods, and towns, which are the purview of the two statutory bodies, the Urban Redevelopment Authority (URA) and the Housing and Development Board (HDB), could facilitate social interaction by bringing residents together in their routine, everyday life activities, creating opportunities for the forging of social ties, the expansion

of interlocking social networks, and thereby contribute to community development and individual well-being. Cheong (2017:105) noted that in the 1980s, "the 'precinct concept'[11] was established to provide a more conducive setting for community interaction." Similarly, Wong and her colleagues (1997:443) observed that in "the concepts of neighbourhood and precinct planning, the provision of common spaces such as void decks, playgrounds and segmented corridors, have been introduced in order to encourage social interaction among residents who share common facilities."

However, the process of promoting social integration is not as straightforward as seemingly implied above. Like many other cities in the world, Singapore is densely populated with a large and heterogeneous demographic profile. It is also an island republic and global city with a land area slightly above 700 square km, with no hinterland following its separation from Malaysia in 1965. This makes it both a city and a country, a fact which renders the social landscape more complex insofar as the process of social mixing and integration, a national priority, would have to take into account the presence of a sizeable proportion of ethnically diverse migrants, both long-term and short-term residents, who are not part of the nation, while they also contribute to the widening income gap experienced in the country (Pow, 2016:182).

How then does the government, through the HDB, address the challenges of social mixing among the socially diverse public housing population? What specific policies have it introduced? What are the rationales for these policies? How effective are they in strengthening social integration? This chapter will begin by describing the public housing population to provide a context to the above questions.

2. The public housing population[12]

Over the last fifty years or so, the population of Singapore has expanded from 2.07m in 1970 to 5.61m in 2017. More spectacularly, between 1990 and 2010, the population grew by about a million or more each decade, attributed primarily to the government's policy to actively encourage the inflow of foreign workers and professionals to meet the manpower requirements of a mature economy. Correspondingly, the population density has more than doubled from 3,538 per square km in 1970 to 7,615 in 2014 (Department of Statistics [hereafter, "DOS"], 2014: v).

This population growth has necessitated and is reflected in the proliferation of high-rise apartments, both private and public, across the island. Most of these flats were built by the HDB, Singapore's public housing authority. Indeed, official figures indicate that close to 82 per cent of Singapore

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11 Each precinct comprises about 10 blocks or between 400 and 800 flats.

12 This section and the next two are expanded and updated versions of the ones contained in a chapter I wrote titled "Public Housing and Community Development: Planning for Urban Diversity in a City State" in Heng Chye Kiang, ed., (2017), 50 years of Urban Planning in Singapore. Singapore: World Scientific. They are adapted here with the kind permission of the publisher, World Scientific, Singapore. They provide background information on the HDB population as well as some survey findings on social networks and community in Singapore public housing.

residents, comprising citizens and those granted permanent residency, live in HDB-built flats, while most of the rest reside in private condominium apartments or landed properties (DOS, 2014:v).

Moreover, notwithstanding the "public housing" label, which may convey a negative image or stigma in some other countries (Chua, 1997:122)[13], an overwhelming 96 per cent of those Singapore residents who are HDB dwellers live in "sold", as opposed to "rental" properties. Some 77 per cent of the residents in the "sold" units, with a lease-hold of 99 years, occupy the larger flat type, ranging from four-room to executive apartments (HDB, 2014:15). These impressive figures are the outcome respectively of the government's home ownership scheme introduced in 1964, as well as a manifestation of its response to citizens' aspirations for residential and social mobility, which has contributed to a visually homogeneous middle-class society in housing terms (Chua and Tan, 1995:4).

However, beyond what is immediately observable, and as one gets closer to the ground and data on the profile of residents, it is obvious that the HDB towns, neighbourhoods, and precincts house a rather heterogeneous population along the dimensions of race[14], class[15], age and citizenship status. This leads us to the question of what then are the implications of heterogeneity for social mixing and integration and community development in Singapore, especially given that we are also dealing with an urban context where casual observations often convey the image of closed doors and lack of social interactions among neighbours, and in turn the apparent absence of community, despite people living in close proximity to one another? Another pertinent question is this: Quite apart from the factor of physical distance among residents, which is deliberately reduced by the design of public housing, are there cultural and class-related differences which create social distance between residents, acting therefore as a barrier to social integration across racial, class, and age boundaries, or between Singaporeans and non-Singaporeans?[16]

The next section will consider the extent of the demographic diversity in public housing in Singapore, which could be understood as a microcosm of Singapore society. This will set the stage for discussing the policies introduced to prevent segregation along, and encourage social integration across, race, class, and age lines, and citizenship status.

3. A multidimensional public housing social landscape

The HDB neighbourhood is within the limits imposed by the Singapore demographic composition--such as having a large ethnic Chinese majority, comprising slightly more than three-quarters of the population--clearly a multidimensional social landscape. Besides being multiracial and multi-class, it is also multi-religious and multi-generational. With the stepping up of immigration in recent years, it has also become increasingly multi-national[17].

The HDB towns, neighbourhoods, and precincts[18] are obviously not all multidimensional to the same degree. For instance, in a comparison of HDB towns in 2008[19], the Central Area, which is classified as a mature town[20], was found to have the lowest median household income of S$2,979, while a young town like Punggol in the northeast had

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13 Chua (1997:122) pointed out as examples that the most significant cause of the failures in public housing in Britain and the United States "may be the fact that these estates concentrate all the multiple-disadvantaged individuals and households, often unable to maintain themselves and the living environment simultaneously." By the same token, Liu and Tuminez (2015:98) noted that public housing in Singapore "does not suffer the stigma of sub-standard quality, nor is it equated with only the lower socioeconomic stratum of society."

14 For the purpose of this paper, I shall use the term "race", instead of ethnicity, in recognition of the fact that Singapore's multiracial policy defines "the Singapore population as divided into 'races'" and that the ruling party "regards the relationship between society, culture, race, ethnicity, and the individual as unequivocally interchangeable" (Benjamin, 1976: 115 and 118, quoted in Hill and Lian, 1995:94).

15 The indicators used to measure class or identify class categories in this chapter include education, occupation, income, and flat type.

16 Of the two, social distance could be a greater barrier to the forging of social ties than physical distance. It is possible for one not to have any interaction with one's immediate neighbours, while constantly in touch via digital devices with a close friend living on the other side of the globe.

17 In addition to an "ethnic quota" policy implemented in 1989 to prevent the formation of "ethnic enclaves", a "permanent resident quota" policy was introduced in 2010 to ensure that "no distinctive enclaves of immigrants" emerge on the HDB landscape (Fernandez, 2011:223).

18 In this paper, "HDB towns, neighbourhoods, and precincts" refer to the three levels of neighborhood size and organization of the HDB's planning hierarchy, while the term "HDB neighborhood" is used in a generic sense to refer to any of these levels.

19 The demographic profile data reported in this paper are from the HDB Sample Household Survey 2008 and 2013 monographs. Figures on some dimensions found in the former are not available in the latter monograph.

20 Broadly speaking, mature towns refer to those built before the 1980s; middle-aged towns, during the 1980s; while young towns are those developed in the 1990s or later.

the highest median income of S$6,569 (HDB, 2010a:52). This income difference could be explained by the fact that the mature town has a higher proportion of elderly residents, who are likely to have lower or no education and be economically inactive, and if employed, more likely to be performing low skilled tasks in jobs such as "cleaners or labourers" (HDB, 2014:49). However, the demographic profile of mature towns can change over time, as younger, higher income families move in to, for instance, stay nearer to their parents, workplace, or preferred schools for their children.

Overall, it can be observed in Table 3 that a large majority of HDB residents live in four-room or larger flat type, which one may describe as "middle income housing". Hence, if we use flat type as a crude indicator of class, it can be inferred that the size of the

middle class has grown considerably over the last twenty years, rising from 41.3 per cent in 1987 to 77.0 percent in 2008 and dipping slightly to or perhaps stabilising at 76.3 per cent in 2013.

The data on educational attainment likewise indicate a significant increase in the size of the middle class. The proportion of HDB residents aged fifteen years or older who have attained polytechnic or equivalent diploma or university qualifications rose from 19.9 per cent in 1998 to 31.4 per cent in 2008 and 42.7 per cent in 2013. At the same time, the proportion with primary or no qualification was somewhat high at 30.5 per cent in 2008, but declined sharply to 15.3 per cent in 2013.

Table 3: HDB Residents by Flat Type

Flat Type	HDB Residents					
	1987		2008		2013	
	%	cum.%	%	cum.%	%	cum.%
1-room	6.3		1.2		1.6	
2-room	7.0		2.2		2.8	
3-room	45.4		19.6		19.3	
4-room	29.0	41.3	41.0	77.0	41.1	76.3
5-room	9.9		26.7		26.6	
Executive	1.6		9.3		8.6	
HUDCᵃ	0.8		--		--	
Total	100.0		100.0		100.0	

Source: HDB, 2010a:14 and 2014:23

a   HUDC (Housing and Urban Development Company) is a company set up by the government to build middle-income housing in 1974. By 2017, all HUDC units have been converted into private housing. The HDB took over the HUDC's functions in 1982 and has since 1987 moved on to build other types of middle income housing, such as executive condominium (Straits Times, March 18, 2017).

Table 4, focusing on occupation level, conveys a picture similar to that of educational attainment, given the high correlation between these two variables. It can be seen that the proportion of employed HDB residents among the ranks of professionals, managers, executives, and technicians (PMETs), which may be classified as middle or upper middle class occupations, has increased steadily from 40.4 per cent in 1998 to 45.2 per cent in 2008 and 50.6 per cent in 2013. The latter figure indicates that one of every two employed HDB residents is middle class; however, there is also a significant proportion of 9.2 per cent working as cleaners or labourers.

In regard to income, the indications for 2008 were that 20 per cent of HDB households had a monthly income of S$8,000 or higher, while 25 per cent earned below S$2,000. The overall picture reflects clearly that there has been significant income mobility, though it also points to one of every four HDB households earning less than half of the median monthly household income, and that 8.5 per cent—many of which were "elderly" households[21]— did not have any earned income.

Table 4: Employed HDB Residents aged 15 or older by Occupation (%)

Occupation	HDB Residents					
	1998		2008		2013	
	%	cum.%	%	cum.%	%	cum.%
Legislators, Senior Officials, & Managers	10.9	40.4	10.7	45.2	13.3	50.6
Professionals	8.5		11.9		14.5	
Associate Professionals & Technicians	21.0		22.6		22.8	
Clerical Workers	13.6		12.8		12.9	
Service & Sales Workers	12.7		12.6		11.8	
Production Workers	21.2		15.0		11.9	
Cleaners & Labourers	8.1		10.7		9.2	
Others	4.0		3.7		3.6	
Total	100.0		100.0		100.0	

Source: HDB, 2014a:32

Table 5 shows that there is some intersection between age and class, using income and house type as proxy indicators. It can be observed that in 2008, the proportion of

elderly households living in one-room or two-room flats were higher than that of non-elderly households: 14.6% and 2.9 % respectively. By the same token, 57.9% of elderly households

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21   An elderly household is defined as one in which the head (that is, the main lessee or registered tenant of the apartment) is aged 65 years or older (HDB, 2014a:xxi).

were found in the below-S$2,000 income bracket, compared with 16.6 per cent in the case of non-elderly households. Significantly, slightly more than a third of elderly households had had no earned income.

Table 5: Flat Type by Elderly and Non-Elderly Households, 2008 (%)

Flat Type	Elderly		Non-Elderly	
	%	cum.%	%	cum.%
1-room	7.0	14.6	0.8	2.9
2-room	7.6		2.1	
3-room	40.3		21.3	
4-room	30.2		39.3	
5-room	12.3	14.9	27.5	36.6
Executive	2.6		9.1	
Total	100.0		100.0	

Source: HDB, 2010a:62

Another correlation to note is that between race[22] and class—again using income as a proxy indicator of class. Table 6 shows that in 2008, 57.8 per cent of Malay households earned less than the median monthly household income, compared to 48.7 per cent of the Chinese, and 51.3 per cent in the case of Indian households. On the higher segments of the income ladder, it can be seen that 21.7 per cent of Chinese households earned S$8,000 or more in 2008, while the comparative figures for Malay and Indian households were 9.5 per cent and 18.5 per cent respectively.

Table 6: Monthly Household Income (S$) from Work by Ethnicity, 2008 (%)

Monthly Household Income (S$)	Chinese		Malay		Indian	
	%	cum.%	%	cum.%	%	cum.%
No earned income	8.8	48.7	6.6	57.8	8.1	51.3
Below 1,000	4.2		5.3		4.9	
1,000-1,999	11.3		15.8		12.3	
2,000-2,999	11.8		15.2		12.5	
3,000-3,999	12.6		14.9		13.5	
4,000-4,999	9.7		12.4		10.6	
5,000-5,999	8.5		8.8		8.8	
6,000-6,999	6.1		7.4		5.6	
7,000-7,999	5.4		4.1		5.4	
8,000-8,999	4.6	21.7	3.2	9.5	4.1	18.5
9,000-9,999	3.4		1.7		2.2	
10,000 & above	13.7		4.6		12.2	
Total	100.0		100.0		100.0	

Source: HDB, 2010a:55

22 In this chapter, I shall use the term "race" and "ethnicity" interchangeably. Technically, "race" is based on biological and physical characteristics, while "ethnicity" centres more on values, beliefs, and cultural practices. In everyday usage, laypeople usually think of race in terms of both physically features and cultural beliefs and practices. The physical features are socially significant, serving as ethnic markers, rather than a determinant of human behavior.

The final diversity to be presented here is that of nationality. Currently, about two of every five persons living in Singapore are foreigners, including about half a million permanent residents, but excluding those who have become naturalised citizens (DOS, 2014:v). Unfortunately, the figures on the nationality profile of HDB residents are unavailable; hence, as a crude approximation, we shall refer to the Census 2010 data, which pertain to the entire Singapore population. This data source reveals a significant presence of residents hailing from East Asia (China, Hong Kong, and Macau), South Asia (India, Pakistan, Bangladesh, and Sri Lanka), and Southeast Asia, particularly Indonesia, and 0.7 per cent

from Europe, North America, or Australia and New Zealand. The majority of non-Singapore born residents originated from Malaysia and are deemed to be "culturally similar" to Singaporeans. These figures, reflecting the diverse "nationality" composition of residents, resonate with that of casual observations of any public space with heavy human traffic, such as hawker centres, shopping malls, walkways, MRT or subway stations, bus terminals, and HDB town centres.

From the above analysis, the image we form of the HDB neighbourhood is one that it is largely middle class— broadly defined to include residents with tertiary qualifications,

PMET occupations, living in four-room or larger flat type, and/or above median monthly household incomes— with small pockets of lower income households living in one- or two-room rental flats (HDB 2014:xiv). One should also bear in mind that the middle class, being a broad category, can be fairly heterogeneous itself. More importantly, for the purpose of this chapter, the question to ask is whether or not and the extent to which the diversity is spatially well dispersed across the public housing landscape, or does it lead to disparate enclaves segregated along the lines of race, class, age, or citizenship status?

A new apartment neighborhood with carpark and playground.

4. Consequences of social diversity: tension or integration?

Having described the multidimensional diversity of the HDB resident population, a critical question to ask is which one or a combination of these scenarios best characterised the HDB neighbourhood: prevalence of social tension and conflict involving opposing values and interests; apparent presence of social harmony produced by strong state intervention in society; or the emergence of an integrated community brought about by the forging of social ties and the accumulation of social capital across the diverse social landscape?

At a superficial level, one could plausibly argue that diversity can be a hindrance to social integration, but, paradoxically, if it is possible, policy-wise, to facilitate the enhancement of social network diversity among individual residents that cut across the critical sociocultural boundaries, while discouraging the formation of ethnic enclaves or other forms of segregation, then we could still produce a socially integrated community, as captured in the cliché "unity in diversity'.

The need for government intervention may often be necessary given that social heterogeneity can be reconfigured by residents themselves, through a self-selection process, to produce segregated, homogeneous groupings within distinct geographical areas. Regardless of whether the end result is intended or unintended, its consequences are similarly unfavourable to social integration. (We shall focus on the issue of enclave formation and its prevention in later sections in this chapter.)

Data from a (Tan, 2004b:36-37) 2001 survey indicate that, among Singaporeans, 85 per cent had "friends from lower income groups", while 11 per cent said they did not. Slightly less impressive were the figures on having "friends from higher income groups". Seventy-seven per cent claimed to have friends who are of a higher class than themselves, compared with 18 per cent who did not. A significant proportion of Singaporeans, 47 per cent, and 60 per cent of those who identified themselves as "lower class", also indicated that "successful people in Singapore tend to look down on the less successful ones".

Clearly, the relationship between classes is not symmetrical. While there is a high degree of intra-class homophily, it is more likely for those from higher classes to form social ties with those for the lower classes, than the other way around.

With regard to inter-ethnic relations, 21 per cent of Singaporeans indicated that they did not have "close friends of a different race". It was also shown that older people are less likely to have "close friends of a different race", compared with younger people. In addition, Singaporeans with lower educational attainment have fewer "close friends of a different race" than those with higher education. This finding is also true of the majority Chinese. Compared with their counterparts among the ethnic minorities in Singapore, they are less likely to interact across ethnic lines (Tan, 2004b: 38-39). The broad picture painted here is reinforced by a more recent survey which indicates that 23 per cent of Singaporeans agreed that they "don't have much in common with Singaporeans of other races" (Tan and Koh, 2010).

Similar to that between classes, the relationship between ethnic categories is asymmetrical. The majority Chinese are less likely to form social ties with minority Singaporeans than vice-versa. One plausible explanation is that being proportionally much larger means that there is less necessity and opportunity for them to form cross-ethnic ties. But it is also possible that, even if the ethnic proportions were more or less equal, it would not necessarily lead to minority Singaporeans forging more cross-ethnic ties with their Chinese counterparts, as there could still be an inclination towards intra-ethnic homophily—a preference to mix with their own kind.

The same survey (Tan and Koh, 2010) also casts some light on the challenges confronting citizen-noncitizen integration. It shows that two thirds of Singaporeans felt that the "policy to attract more foreign talent[23] will weaken Singaporeans' feeling of one nation, one people". The proportion with a negative orientation towards foreign labour was highest among those in the smaller flat type or with low income, declining from 72 per cent among those living in one- to three-room HDB flats to 49 per cent among those residing in private properties. F. Yahya (2016:256-261) noted that the negative orientation may also be found among those in mid-level, skilled jobs or professions.

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23 The term "foreign talent' refers primarily to foreign professionals, rather than foreign workers. It is now hardly used as it tends to provoke some negative sentiment among citizens who perceive it as a "put down" of their own status, relegating them to "second class citizens", and a constant reminder of the competition they face for similar jobs. `

However, Singaporeans are somewhat more accommodating towards migrants in their midst when they consider the latter's importance to the economy. Specifically, two thirds of Singaporeans, as reflected in the survey, agreed that the "Government is right to increase the number of foreigners working in Singapore if our economy needs it". However, the proportion who disagreed with the statement was not unexpectedly highest among those living in the smaller flat type or with lower income, decreasing from 45 per cent among the one- to three-roomers, to 24 per cent among those residing in private properties.

Within the HDB towns and estates, a similar pattern could also be discerned. The proportion of HDB residents who perceived that the migrants living among them were integrating well was 44.3 per cent, as compared with 25.9 per cent who thought otherwise. Like the findings from the national survey reported above, HDB residents with higher education, living in larger flat types, and younger in age were more likely to perceive the migrants in their midst in a positive light (HDB, 2010b:66).

The last dimension to be considered here is that of age, in particular the extent to which seniors are socially integrated. The HDB Sample Household Survey (SHS) 2013 found that almost one of four seniors were living alone, some by choice, and three-quarters of these seniors were economically inactive, living in the smaller flat types, and have primary or lower educational qualifications (HDB, 2014b:94). However, most seniors have strong ties with their children, engage in neighbourly interactions, even across ethnic categories, and, more so among those who

live in the larger flat types and with higher educational attainment, likely to participate in community activities (HDB, 2014b:133).

Notwithstanding some of the "negative" indicators highlighted above, one would argue that, given what we know of Singapore over the last fifty years, it would not be justifiable to suggest that the country is characterised by, or prone to, class, race, age, or citizen-noncitizen conflict. If anything, the positive figures generally outweigh the negative ones. This is not to deny that individuals may, to different extents and in their everyday life, harbour prejudices and practise some subtle form of discrimination against people of another class, race, age, or nationality, as manifested in snide, even toxic, remarks reflecting negative stereotypes in response to specific events which have "gone viral" on social media; or, occasionally, experience unhappiness over nuisances committed by neighbours (HDB, 2014:23).

Indeed, the HDB Sample Household Survey (SHS) 2013 (HDB, 2014b:15) indicates that an overwhelming majority of residents engaged in less intense forms of neighbourly interactions, such as exchange greetings and casual conversations, while more than half went further to "exchange food/gifts on special occasions", and a third, to "visit one another", or "keep watch over (each other's) flat". The same HDB survey also found that the ethnic minorities were more likely to engage in the more intense forms of neighbourly interactions, and that length of residence and age of residents were positively related to increase in mutual help between neighbours (HDB, 2014b:21). More importantly, SHS 2013 found that half of HDB residents interacted across ethnic lines, while 32 per cent, as

compared to 15 per cent in 2008, interacted across both ethnic and nationality lines in their neighbourhoods. In total, close to 90 per cent of HDB residents reportedly interacted with neighbours across ethnic, nationality, or both ethnic and nationality lines in 2013 (HDB, 2014b:19). The finding indicating a positive ethnic relations climate is further corroborated by the CNA-IPS[24] Survey on Race Relations 2016 which found 86 per cent of Chinese respondents reporting that they have "made friends with Malays", and 89 per cent of Malay respondents extending their hand of friendship to Chinese (Mathews, 2016).

Having described the demographic diversity in public housing and observed that the state of social integration in Singapore is, on balance, in a healthy state, the chapter will focus on the policies introduced to prevent the formation of enclaves along racial, class, age or citizenship status, and promote their desegregation. It will also look at the historical antecedents of these policies. The key argument would be that while housing-related policies can reduce the physical distance between social groupings, there is a need for bonding programmes to encourage the formation of social ties and mutual understanding across social boundaries, while preventing and managing possible conflicts. Metaphorically speaking, it is about putting in place a combination of hardware and software which can facilitate social integration (Liu and Tuminez, 2015: 98; Khoo, 2017:40).

The next section will focus on the sources of social tension across ethnic lines and that between citizens and non-citizen residents, before discussing the policy measures introduced to prevent racial segregation and enhance social integration.

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24   This survey is a collaboration between Channel News Asia (CNA) and the Institute of Policy Studies (IPS).

5. Race, citizenship status and social integration in public housing

As noted earlier, the public housing population can be understood as a microcosm of Singapore society. It comprised 73.5 per cent Chinese, 15.8 per cent Malays, 8.9 per cent Indians, and 2 per cent of a mix of other races in 2013.

Given such a racial composition, the probability of a Chinese household living next to a Chinese one remains very high. However, the public housing population is far more heterogeneous and ethnically spread out to prevent the formation of ethnic enclaves, compared to the "ethnically exclusive communities" predominant in Singapore prior to the advent of the PAP Government's large-scale public housing programme begun in 1960 (Chua, 1997:142). Furthermore even if, for instance, a Chinese household does not live next to or a few doors away from a Malay household, there is a likelihood that their members would meet or even interact as friends or acquaintances when sharing common amenities, such as the lift landings, void decks, walkways, bus stops, hawker centres, playgrounds, or schools in the neighbourhood.

But living in close proximity can also be a source of annoyance, if not tension or conflict. Indeed, when asked whether they have encountered any intolerable nuisances, almost one of four households surveyed indicated that they faced littering, noise and dripping water caused by neighbours (HDB, 2014b:23). It is not known if race is a factor in these broad categories of unneighbourly occurrences reported.

There is, however, evidence that race can be a source of tension in public housing neighbourhoods, though more likely manifested in terms of everyday, unreported

Living in close proximity can also be a source of annoyance, if not tension or conflict.

petty occurrences. This renders the occasional—but widely circulated usually via social media—episode all the more important for understanding how racial harmony cannot be taken for granted, despite Singapore's long record of racial integration and multiracial practices. I will cite two highly publicized episodes which happened in the context of a HDB neighbourhood. These cases are comprehensively described by Lai and Mathews (2016).

Two racist episodes
The first case surfaced in the public domain in 2011, several years after the racist episode had occurred. It arose as a result of a newspaper report citing a mediation case handled by the Community Mediation Centre (CMS) of the Ministry of Law (Lai and Mathews, 2016:16-17).

This case involves an ethnic Chinese family which had just arrived from China at that time. The point of contention was the aroma, which they found unpleasant, of the curry regularly prepared by their Singaporean, ethnic-Indian neighbour. The latter did make some attempts to minimise the smell wafting into their Chinese neighbour's apartment, but to no avail. Subsequently, the Chinese neighbour asked, or perhaps expressed in stronger tone, that their Indian neighbour put a stop to

cooking curry or, better still, stop eating it.

Given that curry is very much a part of the Singaporean palate across the various races, the "demand" is seen as insensitive and unreasonable. The case eventually went through mediation, which produced an outcome which Singaporean netizens considered outrageous, even though it was the Indian family that graciously agreed not to cook curry whenever the Chinese family was home.

The second case appeared in October 2012. It involves an ethnic-Chinese, Singapore permanent resident who posted "offensive and expletives-laced comments about Malay weddings traditionally held in public housing void decks, and about Malays on her Facebook page", because she was upset by the noise coming from a Malay wedding taking place near her apartment block (Lai and Mathews, 2016:30). The person demanded that void deck weddings be banned and subsequently went on to make racist comments about Malays.

Following her racist diatribes going viral through social media, a chorus of voices emerged to condemn her action. This led to her almost immediate dismissal from the job she held at the Singapore's confederation of labour unions. Notably, there were some suggestions that the response to such episodes of racism is to educate the offending party, rather than allow the racist sentiment to simmer and emerge another day.

These two cases illustrate that a heterogeneous public housing population with people living in close proximity to one another could potentially be a source of social conflict. They also suggest that

establishing institutional norms and practices supportive of multiracialism can further reinforce an awareness of cultural sensitivity and tolerance, even acceptance across racial lines, and that while everyday racism may not be completely eradicated, there is a significant majority who have accepted multiracial norms and are prepared to contribute to "self-policing" violations of the norms.

Multiracial norms were reinforced by laws introduced in response to a tumultuous era of racial conflicts, particularly that between the Chinese majority and the Malay minority. These conflicts also have religious undertone historically, which led to the enactment of laws to preserve racial and religious harmony.

Historical roots
A very prominent case is that of the Maria Hertogh riots in 1950. It arose from a custody battle between the biological mother of a young Dutch girl named Maria and her Malay foster mother (Narayanan, 2004:44). Maria was left in the care of the latter during the early days of the Japanese Occupation of the then colonial Singapore. Her foster mother raised her as a Muslim and subsequently gave her in marriage to a Muslim man.

In 1950, Maria's biological mother returned to contest the custody of her daughter and sought an annulment of her Muslim marriage. She eventually won the custody battle in court. This verdict, together with related events seemingly pitching Muslims against Christians, led to an outbreak of violence and rioting, resulting in a total of 18 deaths and damages to properties.

Another prominent case is that of the two 1964 racial riots ignited by clashes between Chinese and Malays during a procession celebrating the Prophet Muhammad's birthday

(Straits Times, July 23, 2017). These riots had their beginnings in the rising communal tensions generated by race-based politics regarding Malay rights in Malaysia and Singapore, which was then a component state of Malaysia between 1963 and 1965.

Since then, there has not been any conflict of the scale of the above two cases. However, the potential for tension and conflict has not dissipated, as "prejudicial viewpoints", which have their origin in historical circumstances, persist in everyday racism, which can rear its ugly head (M. Talib, 2012, cited in Lai and Mathews, 2016:34).

Managing race relations via public housing policy: the Ethnic Integration Policy
As noted earlier, given that the majority of Singapore residents live in public housing, it is one of the main avenues through which the government shapes the tenor of race relations. Specifically, while ensuring a racial mix in public housing has always been an essential feature of public policy, the racial composition could, if left on its own, be undermined by the fact that, beyond a certain occupancy period, apartment owners are permitted to sell their units on the open market. An unintended consequence of this practice is that it could eventually result in the formation of racially homogeneous clusters or "ethnic enclaves", should home-buyers prefer to buy units next to households of the same race as themselves, as they are part of their own social networks.

Subsequently, in 1989, the government introduced the Ethnic Integration Policy (EIP). This policy sets the limits according to race on the proportion of flats in a block and a neighbourhood (Straits Times, July 23, 2017). Its rationale is to nudge the minorities, in particular, to interact across racial lines and form social networks which are more racially diverse (Khoo, 2017:13).

The specific quotas are as follows:

1.   22 per cent of flats in a neighbourhood for Malays, and 25 per cent of units in each block;

2.   84 per cent of flats in a neighbourhood and 87 per cent in each block for Chinese;

3.   10 per cent in a neighbourhood and 13 per cent in each block for Indians and other minorities in each block. These quotas were raised to 12 per cent and 15 per cent respectively in 2010.

The respective quotas exceed that of their respective racial proportions in public housing. Nevertheless, it has been necessary to increase the quotas by 10 percentage points for rental housing applicants in order to accommodate economically vulnerable groups (Ministry of National Development [MND], 2013).

Other Quotas: managing Singaporeans-migrants' relations
In 2010, a Singapore Permanent Resident (SPR) quota was also introduced. It sets a quota of 5 per cent of flats in a neighbourhood and 8 per cent in a block for non-Malaysian SPR households (Straits Times, July 23, 2017). Malaysian SPR households are not subjected to this quota, given their close cultural and historical similarities with Singaporeans.

Likewise, in 2014, a non-citizen (NC) quota was established to set a limit on the proportion of non-citizens, non-Malaysians allowed to rent an entire apartment. The applicable figures are 8 per cent at the neighbourhood level and 11 per cent at the block level.

Here again, the objectives are to prevent the emergence of non-Singaporean enclaves in public housing, as well as to facilitate social integration between Singaporeans and non-Singaporeans. More importantly, the quota could be understood as an aspect of the government's effort to allay citizens' concerns and unhappiness with an influx of migrants perceived to be competing with them for housing and amenities, in addition to jobs (F. Yahya, 2016:247).

The perceived unfair competition also generates tensions between citizens--who feel their citizenship privileges threatened--and migrants (Yeoh and Lam, 2016:653), as well as contributes to the emergence of negative stereotypes about the latter among some vocal citizens, reflecting the presence of anti-immigrant sentiments. Indeed, the two racist episodes highlighted above in which some non-citizens were seen as exhibiting racist behaviour, apart from demonstrating that racial integration remains a work-in-progress, may have reinforced a negative image of non-citizens as not keeping in step with Singapore's multiracial norms.

The next section will focus on the class dimension and the measures taken to facilitate the mixing of the different social classes in Singapore public housing.

6. Preventing the formation of enclaves and ghettos: facilitating social mixing between social classes in public housing

Thus far, we have highlighted a key consideration in public housing policy: that of preventing the formation of enclaves, be they racial or migrant-based, through the use of quotas. An ethnic enclave, as understood in the context of public housing in Singapore, is the unintended or intended consequence of people of a racial group choosing to live in close spatial proximity with one another.

A somewhat similar concept is that of "ghetto". Unlike an enclave, however, the people who live in ghettos are probably not there by choice, but belonging to an oppressed or disadvantaged social category compelled by circumstances to reside in slum conditions or by laws to be segregated from the rest of society.

In the Singapore context, the presence of inequalities in housing consumption, as apartment sizes are contingent on a household's ability to pay, may "lead potentially to the physical segregation of housing classes in an estate and possibly the ghetto effect" (Chua, 1997:138; Phang and Kim, 2011:134). On the flipside, there was also a concern that the building of apartment blocks and estates catering for the middle or upper middle income and their desire for housing mobility could unintentionally develop into exclusive enclaves (Hill and Lian, 1995:124).

To prevent the emergence of low-income ghettos and middle-income enclaves, the government's antidote, as succinctly described by Chua (1997:138), is as follows:

1. Deliberate "interspersing of rental flats for the lowest-income groups among the various classes of purchased flats".

2. "Each housing estate or new town is a mixture of different-sized flats catering for different income groups."

3. Flats of "different sizes catering for different incomes can be designed into the same block."

HDB towns, neighbourhoods, and precincts are therefore designed to be spatially and socially inclusive, facilitating, in this case, the social mixing and interactions of the different classes in Singapore[25].

However, there is a core consideration in estate and block design and town planning that class mixing should not be taken to extremes. Liu and Tuminez (2015:102) argued that it is "inadvisable to mix one- and three-room or two- and five-room flats because larger socioeconomic disparities could create divides or diminish natural social interaction and cohesion."[26] In practice, only up to three consecutive flat types, comprising 2-room Flexi, 3-room, and 4-room or 3-room, 4-room, and 5-room/ 3-Generation flat type are placed in the same block. There has not been any housing project where rental and sold flats are co-located within a block until recently.

Liu and Tuminez (2015:105) also highlighted that to "further integrate socioeconomic groups, the government subsequently decided to sell land for private housing within HDB new towns." This resulted in the emergence of private estates sited in the vicinity of public housing neighbourhoods, which while designed as gated communities with their own sports facilities, such as a swimming pool and a tennis court, makes it likely for people from the different socioeconomic categories to cross each other's paths when they access the common amenities and services that surround HDB estates, thereby somewhat reducing their potential for turning into exclusive class enclaves (Hill and Lian, 1995:124), while enhancing the permeability of class boundaries in spatial terms (Sim, Yu and Han, 2003). More recently, there are steps taken by the URA to nudge developers toward building fenceless condominiums, which could "feature more connectivity, boundaries of vegetation, and be strategically located to encourage the sharing of courtyards and public amenities" (Toh, 2017).

The next section will focus on the age dimension and the measures taken to facilitate the social integration of seniors in public housing. The latter is not entirely a housing issue, which relates to the prevention of physical isolation, but also a social issue, involving the need for social support of seniors from the family and community. Where public housing comes into the picture is in facilitating the provision of intergenerational and community support: the former, through policies aimed at enabling seniors to live with or near their married, adult children; and the latter, through easy access to amenities and healthcare services, and being able to stay connected to their social networks and the neighbourhood community in real terms, and reinforced in cyberspace.

7. Keeping seniors in public housing communities

While race, citizenship status and class may be understood as inherently containing the seeds of conflict relations, arising from differences in value-orientations, economic interests, or competition for space and amenities, the same cannot be said of that between age categories or between generations within the family. For one thing, having raised their children and perhaps even grandchildren, there is a likelihood of seniors possessing strong intergenerational bonds. Such parent-child ties are expected to produce intergenerational support morally sanctioned by social values, the most prominent being filial piety, which prescribes that adult children have an obligation to support their parents if they are in need (Tan, 2015:58). Similarly, Quah (2016:272) observes that "filial piety and other family-oriented values form a protective shield for the frail elderly by preserving their role in the family and thus ensuring respect and caregiving by family members." However, it is possible that parent-adult child ties could be ruptured, resulting from and leading to family conflict and a weakening of family cohesion, which would benefit from family support services conveniently located within the public housing community.

More importantly, even as public housing aims at bringing people of different races, citizenship or residency status, and classes together, it can play a role with respect to the age dimension by helping seniors stay connected to their married, adult children and their families as well as to their own social networks and community within a familiar neighbourhood setting. From the government's perspective, it is undesirable to have seniors living in spatial and social isolation; therefore, "institutionalization (which conveys the image of an old folks home located away from HDB communities) should be a last resort" (Yap and Gee, 2015:13). With a rapidly ageing population[27] in Singapore, it continues to be a priority to ensure that seniors do not end up at the margin of society and community, but are able to "age-in-place" and experience "successful ageing" in the public housing neighbourhood (Yuen and Soh, 2016:6).

Ageing-in-place in public housing
Ageing-in-place is a key principle adopted by the Committee on Ageing Issues (CAI) set up by the government in 2004.[28] It aims to make Singapore "the best home for Singaporeans of all ages." Achieving this goal would mean that seniors could live independently—not to be misconstrued as living alone--move around easily, and have unhindered access from home to services.

Specifically, ageing-in-place, as relates to housing, is about "growing old in the home, community and environment that one is familiar with, with minimal change or disruption to one's lives and activities" (CAI, 2016:16). More relevant to the topic of social

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27   The old-age support ratio, defined as the number of residents aged 20 to 64 years per resident aged 65 years or older, declined from 6.0 in 2014 to 5.4 in 2016 (Ministry of Social and Family Development [MSF], 2016 and 2017).

28   The CAI is one of the series of high-level committees established by the government to address ageing issues since 1982.

integration, it is about seniors remaining relationally within the ambit of or staying with or close to their family and maintaining community networks (Yuen and Soh, 2016:30). Significantly, public housing policies are pro-family in orientation and serve larger social objectives. One of which is to enable married children and their families to co-reside with or live near their parents. The intent is, however, not confined to co-residency alone, but to achieve the objective of encouraging a living arrangement which enables intergenerational social support and caregiving. This means that seniors could also choose to live on their own in a community and environment they are familiar with, but in close proximity to their married children, practising what is now popularly known as "intimacy at a distance" (Yap and Gee, 2015:24).

Facilitating ageing-in-place: housing schemes, grants, and designs[29]
Various housing schemes aimed at encouraging co-residence either within the same apartment or nearby in the same town have been implemented since the late seventies. Such schemes could at the same time prevent the emergence of elderly people's enclaves or ghettos should seniors chose to remain behind or were left behind in an older town upon their married children moving out to set up separate households elsewhere in a new town.

Essentially, the housing schemes gave priority to applicants of HDB flats who include their parents in the Joint Balloting Scheme, the Joint Selection Scheme, or the Multi-Tier Family Housing Scheme. Participation in one of these schemes means a shorter waiting period to secure a flat.

The above three schemes, introduced more than three decades ago, have since been replaced by the Married Child Priority Scheme (MCPS) and the Multi-Generation Priority Scheme (MGPS). Under these schemes, a certain percentage of flats are set aside for eligible applicants, thereby giving them a higher probability of securing a flat.

There are also other schemes, such as the Proximity Housing Grant, which encourage families to purchase a resale flat to co-reside with or live near (defined as in the same town or within 2 km) to their parents or their married children.

Another type of schemes focuses on the size and design of HDB flats. The 3Gen Flats first offered in 2013 were intended to enable a multi-generational family to live under one roof. They are designed for privacy and comfort for both the parents and their married child and family.

However, not all schemes are meant to encourage only co-residency, as it is just as important to enable seniors to continue living in public housing communities, if co-residency is not an option they prefer or is not available to them. Studio apartments, which were launched in 1998 and replaced by 2-room Flexi flats since November 2015, exemplify the purpose-built public housing catering for seniors to enable them to continue enjoying community-based living. Seniors opting to buy a 2-room Flexi flat or, previously, a studio apartment could also choose to live near their married children, and benefit from a priority allocation scheme.

The policy to build housing estates with mixed flat types to facilitate cross-class interactions

has a parallel in seniors' housing as well. This aims to prevent age-segregation, while facilitating social interaction and integration across the various age categories. Since the 1990s, an urban renewal programme, which includes adding new features to old HDB blocks and units or even demolishing entire blocks and building new ones, was established to not only upgrade older towns and neighbourhoods, but also "revitalise the demographic and economic profiles (in old towns) as younger residents move in to these towns" (Cheong, 2017:108). More recently, social mixing between old and young is enhanced by the introduction of age-inclusive, intergenerational facilities, such as playgrounds or co-located eldercare and childcare centres in new HDB estates or those undergoing renewal. This measure could contribute to the social and emotional health of seniors and strengthen intergenerational bonding (Tan, S. 2017), particularly if the facilities allow for the different generations to do things together, and not just their being present in the same physical space, but each doing different things.

8. What are the key take-aways from this chapter?

From the discussion in the preceding sections, one observes that public housing can be designed to create conditions whereby a diversity of people who differ along the dimensions of race, class, age, and/or citizenship status could meet and interact in the course of their everyday life activities, and eventually forging social networks of friends, neighbours, and acquaintances among themselves.

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29 The main source literature for the policies and measures cited in this section is Yuen and Soh (2016).

To illustrate, grandparents walking their grandchildren to the nearby kindergartens or schools would likely find other grandparents partaking in the same routine activity and discover that they have much in common to strike a conversation. Elderly men with time on their hand may spend their evenings at the local coffee shop drinking beer, discussing international relations and local politics. In the local, vibrant wet markets, homemakers doing their morning grocery shopping may intermingle with other homemakers, young or old, to share the latest gossips or information on food prices. Those who use the exercise equipment located near HDB blocks or their preferred jogging routes in the neighbourhood may find themselves encountering the same fellow users on a regular basis and eventually become acquainted. The precinct basketball court could be a site for friendly matches between Singaporeans and non-Singaporeans residing in the neighbourhoods, though it is also possible that competition for the use of the same facility could be a source of tension.

Besides the various "touch points" noted above, there are others like lift landings, void decks, playgrounds, town parks, and community centres. These "touch points" provide vast opportunities for residents to meet, interact, and bond with one another in the multi-racial, multi-class, and multi-generational towns, neighbourhoods and precincts which constitute public housing in Singapore.

The "touch points", which are embedded in the physical design and layout of HDB neighbourhoods, may be understood as a deliberate, but non-intrusive "hardware" for facilitating social interaction and integration.

What may be viewed as somewhat more intrusive are the quotas established to prevent the "over-representation" of ethnic minorities and non-Singaporean, non-Malaysian residents in public housing at the block and neighbourhood level. The ethnic quota, for instance, can be deemed to discriminate against minorities; but, from the government's perspective and with the tacit support of Singaporeans, the benefits of such a policy meant to promote racial harmony far outweigh its costs to the categories of people affected. The means by which to achieve racial harmony, through the use of ethnic quotas, is to deter the formation of ethnic enclaves, which could act as a barrier to cross-ethnic mixing and social integration, produce a somewhat plural[30], as opposed to pluralistic, society, and undermine the government's efforts aimed at strengthening national identity. Similarly, the "permanent resident" and the "non-citizen" quotas are aimed at preventing the formation of non-Singaporean enclaves for the purpose of promoting social integration between citizens and non-citizens residing in Singapore, while reinforcing the message that public housing remains a privilege of citizenship.

In regard to the mixing of social classes, the policy of interspersing of rental flats for the lowest-income groups among the various classes of purchased flats, and mixing different-sized flats catering for different income groups at both block and neighbourhood level is to prevent the emergence of middle and upper middle class housing enclaves as well as the ghettoization of low-income housing. This policy, as Chua (1997:138-139) observes, is beneficial "to the lower-income groups because they may be served by the better educated who volunteer as community leaders" and, more broadly, prevent "class segregation and conflicts."

Similarly, the approach of mixing and integrating different social classes at the block and neighbourhood level is also applied to that of the housing arrangement of seniors and the younger age categories. In the latter case, the objective is to enable seniors to stay spatially and socially connected to their married children and to the community and environment they are familiar with. This would not only prevent the emergence of seniors' ghettos, but also facilitate the younger generation providing social and caregiving support to their ageing parents.

However, public housing policy and design constitute only the "hardware" for facilitating social mixing. They need to be complemented by the "software" of social policies directed at alleviating poverty, equalizing educational and economic opportunities, and promoting mutual understanding, trust and confidence among residents; as well as ground-up initiatives aimed at encouraging residents to participate in projects or activities, doing things together, with social integration as a by-product.

The process of facilitating social mixing and producing social integration has seen positive results over the years, but it remains a work-in-progress. If we use social network diversity as a measure of social integration, we would be able to gauge the extent of social integration in Singapore along the dimensions dealt with in this chapter. A study on social

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30   A plural society, according to Furnivall (1967[1947]) is one in which the different ethnic groups do not have much to do with each other, except in the market place. They live "side by side, yet without mingling". The concept of "plural society" differs from, yet is often confused with, that of "pluralistic society".

capital in Singapore conducted by my colleagues and I[31] found that social network diversity among public housing dwellers along the dimensions of racial and citizenship status is moderately positive, while that along house type, a proxy of class, and age is positive. These figures (see Table 7) reflect some measure of success in achieving social integration in so far as public housing residents are embedded in diverse, as opposed to homogeneous social networks, from which they could count on to receive and to which they reciprocate support, assistance, advice, or companionship.

Table 7: Measures of Network Diversity among Public Housing Residents

Network diversity	Mean	Median
Racial (4 categories)	.32	.33
Citizenship status (2 categories)	.36	.33
Housing type (4 categories)	.53	.64
Age (6 categories)	.58	.64

Note: A score of 0 = no diversity, and 1 = complete diversity. **Racial categories**: Chinese, Malay, Indian, and Others. **Citizenship status categories**: citizen and non-citizen. **Housing type categories**: (1) HDB 1- to 3-room, (2) HDB 4-room, (3) HDB 5-room, HDB-executive, (4) Condominium/ Private apartment, landed property, shop house, others. **Age categories:** (1) Below 30, (2) 30 to 39, (3) 40 to 49, (4) 50 to 59, (5) 60 to 69, and (6) 70 and above.

9. Are Singapore's public housing policies applicable to other social contexts?

Singapore's public housing programme has long been recognized as a social policy success story, and therefore worthy of emulation. However, is Singapore a unique case? Could its public housing policies and practices work just as well in other social contexts? All things being equal, it should be so.

In the Singapore context, there is a strong government with a massive and successful housing programme which covers more than 80 per cent of the population of households.

The government also enjoys a high degree of legitimacy over its long tenure of almost 60 years. These conditions make it much easier for the government to implement policies which may not be popular with some categories of people and would therefore likely meet with some strong resistance in other national contexts. Nevertheless, to achieve a stable, peaceful and inclusive social order, there are good reasons to prevent the formation of any kind of enclaves--be it race, class, or citizenship status--which could hinder social integration or generate tension and conflict, as well as the emergence of seniors' ghettos, which would lead to the social exclusion and marginalization of an expanding segment of a rapidly ageing population.

Suffice it to say that the Singapore approach of encouraging social mixing and preventing the concentration of ethnic or social minorities may be instructive as broad principles, with wide applications, which point to the challenges that would need to be addressed to achieve successful outcomes.

Finally, it should be reiterated that public housing-related policies as discussed in this chapter may not in and of themselves be sufficient to facilitate social integration. They must be complemented by social policies and community support aimed at equalizing educational and economic opportunities; promoting dialogues, understanding, and mutual trust and confidence; enhancing

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31   These figures are based on the survey data from a study on social capital in Singapore conducted by Vincent Chua, Gillian Koh and me during 2016-17 for the Institute of Policy Studies.

acceptance of diversity and mutual support and collaboration; and strengthening national identity (Tan, 2004a). Without the "hardware" of public housing policy and design working in tandem with the "software" of social policies and community support, merely putting people in close spatial proximity to one another could result in conflict, rather than reap the fruits of social mixing (Chaskin and Joseph, 2017)[32].

In Singapore, various ministries and agencies, besides the HDB, are actively involved in furthering the mission of social cohesion. The People's Association (PA), for example, which is the government agency responsible for community building, has continued "to develop engagement platforms, as well as encourage ground-up initiatives, to promote social cohesion and ownership through creating opportunities for residents to do

things together, be it participation in leisure activities or working on group projects to solve municipal problems" (People's Association, 2014, cited in Tan, 2017:259). Clearly, to forge and strengthen social integration in regard to each of the different social dimensions dealt with in this chapter, there needs also to be a strong partnership between the Government, community organisations, and the private sector.

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32   Chaskin and Joseph (2017) deals with mixed-income public housing, but the implications of its findings can, in my view, extend to other types of social mixing as well.

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CHAPTER 4:

Community Development within Public Housing Estates

Author: K.C. HO

The community centre was first forged in 1960 to provide a meeting ground for the various ethnic-language-religious groups. We saw the need for non-partisan or an apolitical social organization, backed up by the elders of the various communities and helped by the resources of the government. It has brought together people with bonds of common economic and social interests. It has engaged people in joint social and recreational activities in each constituency. The PA, through the community centre, has played a catalytic role. It has crystallised the first units of the building bricks for a nation in the making.

PM Lee Kuan Yew, Opening Address, 14 April 1978[33].

This quote from Singapore's founding prime minister provides a convenient way of thinking about community development in the context of Singapore's public housing system in several ways. First, Singapore was a newly independent country undergoing rapid economic and social changes. While the investments made in education will pave the way for an industrializing economy, organizations need to be in place to enable the adjustment for shift from essentially traditional urban to rural villages to the high rise high density environment of Singapore's new towns. Second, the idea of community development should be seen against the context of a newly independent country where there was a need to connect between the new government and its citizens. Can this form of mobilization result in a non-partisan and apolitical social organization? Thirdly, if the community centre was the "first units of the building bricks for a nation", has the basic policies of community development changed over time? How do we assess the success of these policies?

1. Community Development as a building block in the lives of a young nation

"Communal solidarity implies some form of social organization of the people with an intensive form of social integration, sense of belonging and involvement in the area. This is not seen in the study block which for most people is just a place to live in. It is described as clean and quiet, however there is no mention of living like a big family, or living in the security which is the common expression of community living for relocatees in their former neighbourhood. A feeling of insecurity surrounds the air. Most of the people are afraid of robbers and juvenile delinquency. Social control at neighbourhood level is lacking"[34].

In 1973, Lim Soo Hong's study was part of a larger collection of resettlement studies done in the 1970s. Her conclusion (1973: 36-7) above points to the important need to recreate the set of local ties which were present in the older urban and rural neighbourhoods and which had been damaged in the process of resettlement to public housing estates, a process which had picked up speed in the 1960s and 1970s.

A year after self-government, in 1960, 9.1% of the population resided in public housing. By the year of independence in 1965, 23.2% of the population had public housing, and by 1970, the figure was 34.6% (Teh, 1975: 9). Singapore's record of rapid public housing development has ironically created new problems for the society by changing the residential environment of significant portions of the population.

It is important to capture a sense of what exactly was changing by referring to ethnographic studies of rural villages in the early 1960s. Joseph Tan's 1964 study of Lye Soon Hin village represents one such study. Lye Soon Hin was a farming community growing vegetables and poultry for the city. It was a community in the sense that the local residents managed several key institutions of the locality, such as the school and the temple. Some villagers held overlapping memberships in school and temple committees, and religious festivals were held in the school compound. Before the adoption of television, movies were also shown in the school compound as a major source of entertainment. A key development was increasing state intervention in community development. In 1963, the school formed a welcome committee to host the Prime Minister when he visited the village. This committee petitioned for a community center, road

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33   People's Association, the Role of Community Centres in the 1980s, Third Conference of Community Centre Management Committees, 14-16 April 1978.

34   Passage quoted by Hassan (1976: 260).

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improvements, the provision of electricity and telephone booths to be built. Along with the fulfilment of various requests, the community centre was built in late 1963 and a more formal People's Consultative Committee was created. This particular committee served as a bridge between the government and the locals and provided inputs relating to various improvements to the village (Tan, 1964: 98-99). As an indication of these new structures and their facilitation of government-people communication, Tan (1964: 100) noted that in the wake of race related violence, village leaders were able to dissuade a group of young Chinese men with gang affiliations from attacking a nearby Malay community. Singapore achieved internal self-government from the British in 1959 and independence in 1965. Formed in 1963, the example of the People's Consultative Committee represented the emergent form of community organizations that is found in Singapore's public housing estates today. And as we

will see in Section II, this early role of the community organization acting as a bridge between the government and the people, specifically in the explanation of government policies and their implementation continues to be an activity which continue to be debated.

a) The shift from Rural to Urban Environments[35]
The resettlement studies documented three effects of residential experience and behaviour for the population which were resettled from tenement housing in the city center[36], semi-rural informal housing settlements like Lye Soon Hin village and areas acquired by the government.

Resettlement studies pointed out a basic difference in the neighbouring patterns of village residents compared to those staying in public housing estates. Macintyre's 1975 study showed that kampong or village based families generally had strong, frequent and

intense interaction with their neighbours, while fellow respondents in public housing estates maintained a certain aloofness, preferring more privacy (Macintyre, 1975:88). Children had less restriction in their play patterns compared to children staying in high rise and low rise public housing environments because of easy access to open space. The majority of children living in the new public housing estates did not play with their relatives because they lived too far away. Mothers living in public housing estates also tended to restrict their children's play for fear of disturbing the neighbours. This distinction is more explicitly expressed in Chen and Tai's study (1978) three years later. Comparing kampong with HDB environments, they found, as Macintyre (1975) did, a weak cohesion among neighbours in HDB estates and the lack of a sense of responsibility and belonging to community. Kampong residents on the other hand, maintained greater contact with their neighbours and were more helpful (Chen and Tai, 1978: 412, 413, 415).

b) Relocation and Its Effects on Social Relationships
The Woodlands study conducted by Chang (1974) indicated that for most families, relocation tended to have the effect of breaking up old neighbourly ties. More than half of the respondents in public housing estates admitted that they had never contacted former neighbours not living in the same estate. His findings also indicated that within the new HDB estates, inter-floor interaction among neighbours living within the same apartment blocks were extremely rare.

35 Sections (a), (b) and (c) are drawn from Ho (1993: 382-386). I am grateful to Dean Danny Wong from Faculty of Arts and Society Sciences, University of Malaya for granting permission and to Associate Professor Shanthi Thambiah for facilitating this process.

36 In the city center, Barrington Kaye's 1955 survey of Upper Nankin street noted that the overcrowding has not changed since the 1947 housing survey (see Tables 51 and 52). And on the lack of light in these dwelling units, Kaye (1960: 85) observed that "while the majority of kitchens, being open verandahs, are well lit enough by day, the halls and particularly the stairways are so dark that it is often necessary, coming in from the street, to stand for several minutes at the foot of the stairs in order to accustom one's eyes to the dark, before ascending them".

On the whole, there were less close contacts with neighbours in the present than in former neighbourhoods.

c) Inter-Ethnic Interaction

The public housing system created the opportunity of ethnic residential integration, a change from the more ethnically homogeneous traditional settlement patterns. Resettlement studies indicated that neighbourly activities tended to be confined mainly to tenants of the same ethnic group. Some 64 percent of the respondents did not interact at all with members of other ethnic groups (Tan, 1972: 91, 92). In a later study, Choo (1977) did a more detailed analysis of inter-ethnic neighbourly interaction by looking into ethnocentric preferences with regard to various activities. She found that the Chinese and Malays displayed a higher degree of ethnocentricity, compared with the Indians; that is - they preferred interaction within the same ethnic group. This ethnocentric attitude was more marked in activities which involved a greater share of involvement from the neighbours, like lending money or asking for assistance (Choo, 1977: 53, 54). Hassan's (1977: 106) study revealed similar results: that there were generally limited neighbourly contacts across ethnic lines, and that this was more pronounced in Chinese than in Malays and Indians. Hassan (1977: 79) also noted that while inter-ethnic contact was low, there were generally favourable inter-ethnic attitudes.

In the 1960s and 1970s, the community centre and residents' committees in HDB estates then became an institutional mechanism for residents to connect with each other over a range of social and leisure activities within neighbourhoods which were comprised of relocates from different places and different ethnic groups in Singapore. These relocates had to learn to live together while adjusting to a new high rise high density environment.

2. Community Organizations and Political Mobilization

"I am prepared to bet that not more than three person in a thousand of the Singapore public are aware of the reason for the People's Association and the community centres. I was involved in this and together with the Prime Minister and give you the real purpose of starting this organisation… In 1960, the People's Association was established as a government grass-root organisation to combat the Communist United Front which was the dominant political force at that time…We started the People's Association as a second line of defence in case the Party branches went over to the Communists when the open flight between the Communists and the democratic socialist began, as we knew it must".

(Dr Goh Keng Swee, Deputy Prime Minister and Minister of Defence, Closing Address, 16 April 1978)[37]

The mobilization of local communities by community organizations for the advantage of political parties has long been a subject of debate in Singapore. Former Deputy Prime Minister, Dr Goh was very clear in pointing to the political and ideological nature of community organizations during the early history of Singapore as a young nation. The role of community organizations was clearly political in nature since the dominant political force at that time, the communists, had considerable support among the trade unions and students, and in the rural areas of Singapore and the community organization network was used as a counter against this political force. Against the contests with communism, the Minister of Culture, S. Rajaratnam was quoted as saying "When the Government introduced Community Centres, its main aim was to use them as training grounds for democracy. Democracy does not mean only elected leaders running the country or relying on the government to do everything… Democracy means people also learning to do things for themselves; people willing to do service voluntarily for the community"[38].

Once the organizational structure was in place, Seah (1973: 108-110) pointed out that it acted as a major mechanism for communication between the government and the people, and as a form of political socialization in creating a political community oriented towards the stated ideals of a young nation. Writing 22 years later, Lai's (1995: 105) conclusion was similar: "the use of community organizations by the PAP for its political consolidation and legitimacy since the 1960s has been so effective that, by the 1980s, they become its para-political institutions, with their nation-building roles focusing on 'community engineering' and promoting ethnic interaction". Thio (2009) has also reiterated the political logic which is

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37 People's Association, The Role of Community Centres in the 1980s, Third Conference of Community Centre Management Committees, 14-16 April 1978.
38 Quoted by Seah (1973: 59).

embedded in community development, while also noting that some form of accountability is achieved through the attorney general's audit of Town Council's finances. Thang, Lee and Kee (2015: 44) observed political affiliations that are aligned with community organizations allow for strong community development programmes.

While it is difficult to untangle the political logic embedded in community development, several points need consideration. The first point to note is the main goal of using community organizations as the link between the government and the people. The issue of whether community leaders (grassroot advisors) appointed by the People's Association (PA) should only come from the ruling party became an issue in 2011.

The People's Association Director of Corporate Communications said "besides connecting people to people, grassroots advisors are required to help the Government connect with the people and help promote Government policies and programmes such as anti-dengue and active ageing. Hence, the Government has to appoint grassroots advisors who support its programmes and can play this role well. Opposition MPs (members of parliament) cannot be expected to do this and thus cannot be advisors to GROs (grassroots organizations)"[39]. This position was elaborated by Dr Janil Puthucheary. A member of parliament from the ruling party and a member of the People's Association Board, Dr Puthucheary was reported as saying that as a statutory board, the PA is "linked to government policy" and the grassroots adviser has to believe in the overall thrust of the government's approach. "People who implement and operationalize these policies cannot oppose them. You simply can't have a situation where the adviser does not support the implementation of these policies"[40].

Dr Puthucheary makes an interesting point using an organizational reason. If the People's Association is the link between the Government and the people, and if one task is that of explaining Government's policies to the people, then the People's Association on grounds of organizational effectiveness, should appoint the members of the ruling party because the ruling party is the one who creates the policy and the means of implementing them. Having oppositional members to perform this function will weaken the clarity and the effectiveness of the communication process. This organizational logic of having only loyal members within the network of community organizations can also be applied from the perspective of the opposition parties. As Associate Professor Tan Ern Ser has suggested in the *Yahoo News* article, opposition parties should also develop their own grassroot networks on "practical grounds"[41]. Organizational expediency will therefore require opposition parties to develop an alternative community-based networks to communicate its message to the people.

Secondly, some attention should be paid to the other side of the relationship, that is, to the locals rather than the political parties or the government. In East Asia, governments set up "outposts" at the level of the neighbourhood and that these organizations have both the ability for co-optation but also representation of various grievances (Read, 2012). In other words, this is a two-way relationship between the government and the people. Governments and political parties are not the only agencies capable of acting strategically, local communities are also capable of seeing, judging and acting for themselves. Moreover, the presence of such grassroots level state directed community organizations do not prevent other neighbourhood groups from forming. Groups are most likely to be created through the loose networks that are already existing at the neighhourhood level and is capable of independent mobilization if significant numbers of individuals come to associate with a particular issue.

Thirdly, aside from local politics, we should consider the organization and governance of collective projects at the local level. There are good economic and organizational reasons why city governments will want to partner neighbourhoods in community projects. Bowles and Gintis (2002) points out that the local residents are effective partners in neighbourhood projects because the proximity and inevitable contact among residents in daily life enhances the ability to enforce local norms and reduce free rider

39 Today, "PA's stance on grassroots advisors under spotlight", 2 September 2011.

40 Yahoo News, "PA stands firm over election of grassroots leaders", 2 September 2011. source: https://sg.news.yahoo.com/opposition-question-pa-stance on-grassroots-advisers.html accessed: 29 September 2017

41   Yahoo News, "PA stands firm over election of grassroots leaders", 2 September 2011. source: https://sg.news.yahoo.com/opposition-question-pa-stance-on-grassroots-advisers.html accessed: 29 September 2017

problems. With proper government and legal supports, community governance can be an effective agency to solve a class of problems at the local level. Likewise, Evans (1996) go on to suggest productive ways in which the state can cooperate with communities through a complementarity of motives and tasks as well as through an embedding of government-community relations. Embedding comes about with the establishment of cooperative relations through the operation of state-funded projects. The embedding of government-community relations is especially important to Evans (1996) because the sustainability of local projects require the active participation of residents.

Fourthly, we should also make the distinction between a political community oriented towards the state, its ideals and programmes, and the everyday problem of collective living in high density and heterogeneous environments. The latter has to do with the tasks of getting along with our neighbours in daily residential environment of the public housing estates and is a critical task requiring government as well as civic organization supports in order to ensure harmonious living in an increasingly heterogeneous residential environment.

3. The Collective Life of the Neighbourhood

The People's Association's center piece for the development of neighbourly relations is the community centre (CC, now known as community clubs). It notes that "the community club has pride of place in every housing estate. The hub of all community activities, the CC offers an avenue for recreation and neighbourly camaraderie" (People's Association, 2010: 47). While the community centres were already in existence in the 1950s, its expansion occurred in the 1960s. This expansion was in part to develop an effective network of community leaders to help the government to deal with major tensions during that period, the political threat of communism and the communal threat of race divisions. However, in order for such a network to be effective, local leaders must be able to develop a larger base within the housing estates, and this was where the community centres was designed to play its critical role by being the social focal point of the neighbourhood through the provision of a set of recreational activities. To the extent that mass support is necessary for government policies, then the set of community centres nationwide must deliver on a user base predicated on a set of activities developed by the centre.

The People's Association envisaged that "activities would draw the people to the network of Community Centres presided over by the People's Association. Each CC would run its own courses and the state would help pay for the cost of teachers so that fees could be kept low. These recreational activities would encourage bonding and create a sense of belonging" (People's Association, 2010: 48).

Community centres developed in tandem with the development of Singapore. In the 1960s, community centres were rather modest and low cost to build, offering television viewing to households who were too poor to afford one.

As Singapore experienced rapid economic growth in the late 1970s and 1980s, the new community centres were larger in scale and offered progressively more activities.

In 1978, the first Residents' Committees (RCs) were piloted in two estates, Marine Parade and Tanjong Pagar ((People's Association, 2010: 114) and this quickly grew in numbers as new functions and activities became associated with the RCs. The main difference between Community Centres and Residents' Committees is one of scale. While the CCs served a much larger area (estimated at 15,000 households)[42], RCs were formed to serve residents in the immediate area of residents (estimated at 500 to 2,500 households). This smaller scale, is quite similar to the concept of "home area". Developed by Kearns and Parkinson (2001: 2014), the home area is 5 to 10 minutes's walk from one's home and is significant for its association to the relaxation and recreation of the self, and an area where neighbourly ties are most likely to be developed, and where a sense of attachment and belonging is formed. This is an area where values (for example values which relate to a way of life) likely to be expressed and shared. This functional area corresponds with the everyday "footprint" of HDB residents in that the precinct represents the most likely journeys that residents take on foot and it is the area where regular contact between neighbours is more likely to be established. This smaller scale allows for apartment block and floor (within apartment blocks) parties to be organized which would scale down and keep the interaction more intimate and around a set of conversations arising from the residents' shared experience and use of the home area.

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42   According to Wikipedia, Each CC serves about 15,000 households or an average of 50,000 people.Source: *https://en.wikipedia.org/wiki/People%27s_ Association_(Singapore)*

An early assessment of the importance of Residents' Committees was made by then Prime Minister Lee Kuan Yew when he said that "RCs are the most promising grassroots organisations we have created so far. Of all the innovations, the RCs hold the promise of the greatest ferment and progress. If we can get the right people to come forward, RCs will help to consolidate our new neighbourhoods and give social cohesiveness to our new owner-occupied estates" (People's Association, 2010: 102). Both Community Centres and Residents' Committees work on activity/event type of mobilization. In 2016, the number of participants attending activities and courses relating to People's Association's network of CCs and RCs was 17.9 million[43].

If we shift the analysis from community organizations to the residents and ask them about the frequency of visiting their CC and RC, the picture changes. Chart 1 provides data from the Housing and Development Board's 2008 and 2013 sample household survey and we note that only about 3 to 4% of the residents surveyed attended their CC on a weekly basis. More than 70% of the residents surveyed either never attend the CC or visit it on a less than occasional basis. Chart 2 indicates that the attendance figures are even lower for residents attending their Residents' Committees as less than 2% of the residents surveyed mentioned a weekly attendance at their RCs.

The idea of regularity as an indicator needs to be qualified. The survey asks respondents for the frequency of visits to the CC and RC within a twelve month period. This may omit many single events which the PA organizes

Chart 1: Frequency of Participation in Community Centres

Source: Housing and Development Board (2010, 2014) Public Housing in Singapore: Well Being of Communities, Families and the Elderly, HDB.
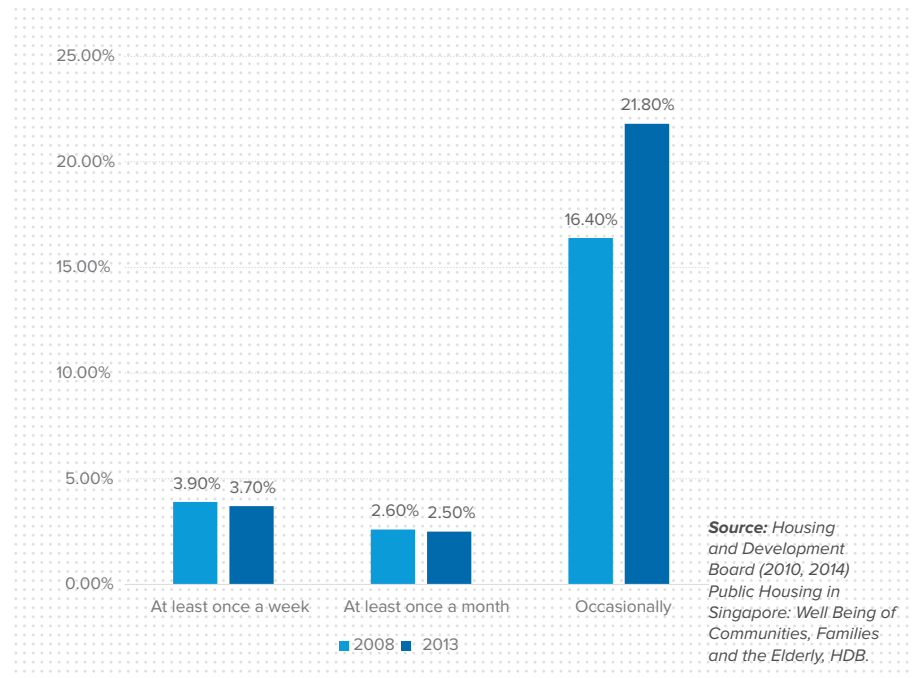
Chart 2:Frequency of Participation in Residents' Committees

Source: Housing and Development Board (2010, 2014) Public Housing in Singapore: Well Being of Communities, Families and the Elderly, HDB.
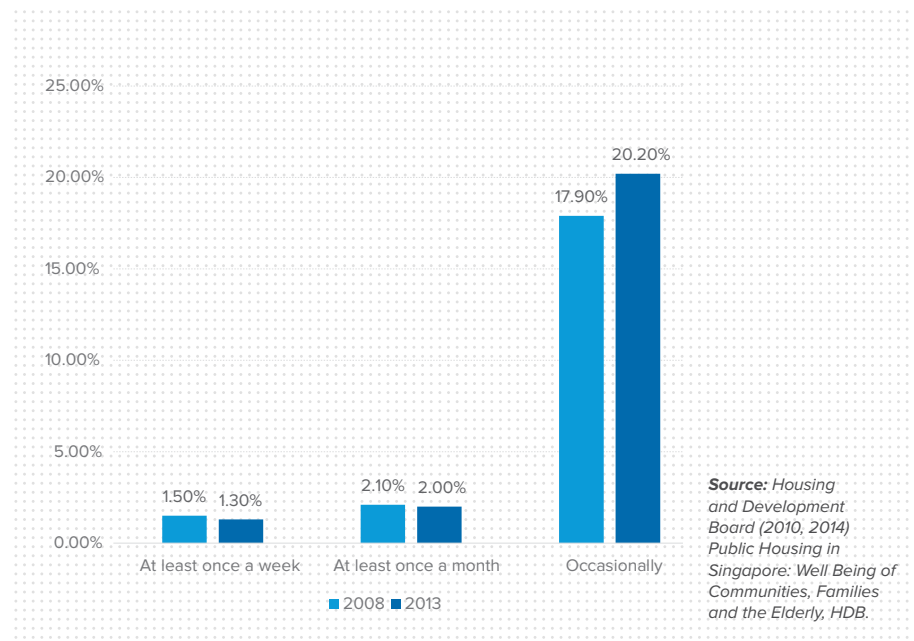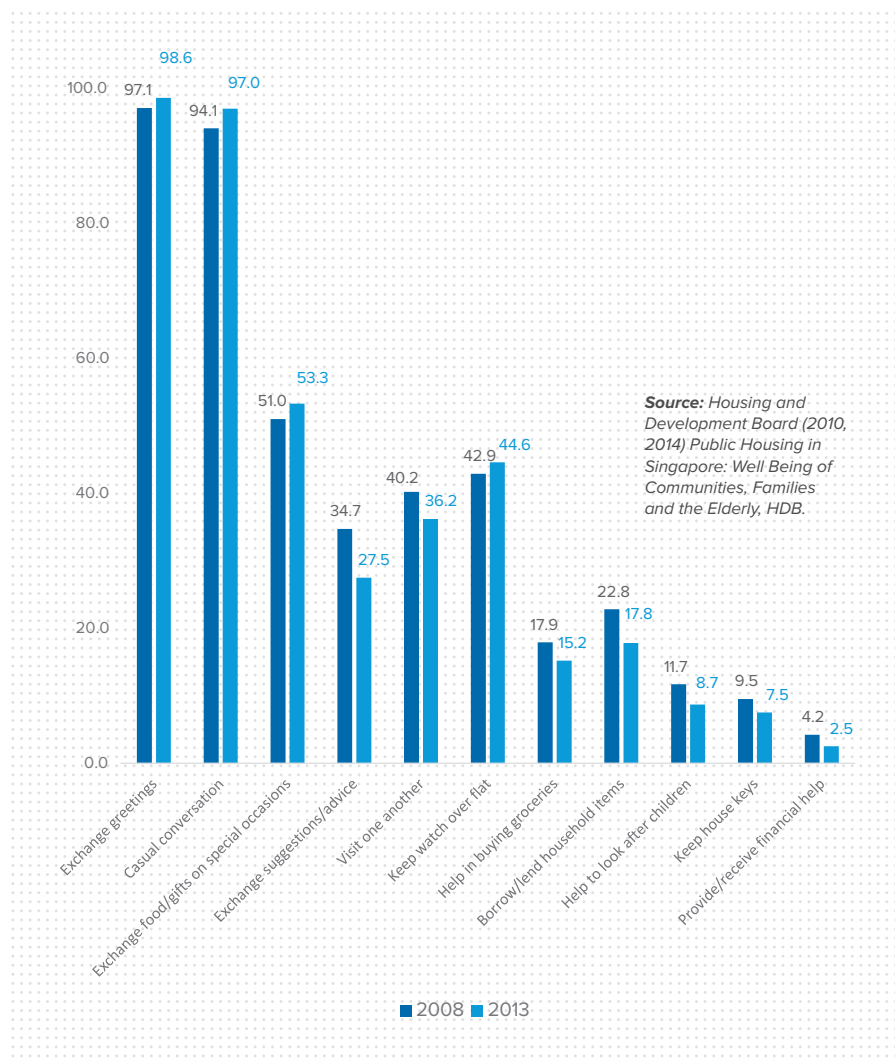
43   Ministry of Culture, Community and Youth, Budget Book of Corporate Key Performance Indicators.

through its network of CCs and RCs, a point which the People's Association Chief Executive Director made when asked by the local newspaper to comment on the survey in 2000. He noted for example that courses, excursions, block parties and smaller-scale group outings are likely to be excluded from such surveys[44] (Straits Times, 13 July 2000).

Thus, while the mobilization potential is high given the People's Association's large network of community centres and Residents' committees especially within the public housing estates, the low regular attendance in CCs and RCs is actually symptomatic of the nature of neighbourly relationships in Singapore. This fairly low level of neighbourly interaction can be deduced from the data presented in Chart 3. In general, the busy lives which Singaporeans have kept them outside their housing estates, resulting in casual neighbourly relations like greeting each other or a quick conversation (over 90%) when their paths cross. This is what the majority of respondents mentioned in the HDB sample household survey. The second point to note from Chart 3 are the things neighbours tend to do for each other on a reciprocal basis, like an exchange of food on festive occasions (about 50%), help keep watch over the neighbour's flat (about 43%). These two activities tend to be infrequent. Social visits to each other's homes (36.2% in 2013) and exchange suggestions and advice

(27.5% in 2013) may be considered to be a sign of intimacy among neighbours but both indicators have shown a reduction between 2008 and 2013. In fact, many of the other indicators have low mentions in 2008 and have fallen further in 2013: help in buying groceries, borrow/end household items, help look after children, keep house keys and lending/borrowing money.

Chart 3:Types of Neighbourly Interaction (% reporting)

Source: Housing and Development Board (2010, 2014) Public Housing in Singapore: Well Being of Communities, Families and the Elderly, HDB.

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44   One-off events organized by CCs and RCs may also be omitted by respondents due to memory lapses, especially if these are

attended by a respondent many months ago.

The idea of cultivating the collective life of the neighbourhood has its challenges in an urban environment where friendship and kinship ties are more likely to be outside the neighbourhood. In thinking about the nature of neighbourly relations in the contemporary city, an important observation is made by Henning and Lieberg (1996: 8,17) concerning the weakness of ties among neighbours. Terming neighbouring relations as weak ties, Henning and Lieberg are careful to point out that neighbourly relations are more similar to Granovetter's of absent ties, which are relations in our everyday lives that are casual and sustained by nodding or greeting in our everyday lives as the figures in Chart 3 has shown. However, such relations should not be dismissed as unimportant. Significantly, Henning and Liebergs' (1996: 20, 22-23) findings from Sweden suggest that such superficial forms of weak ties are easy to maintain at the neighbourhood level, and in everyday life. These encounters allow for the conversation that flows within such relationships to maintain a life of its own and, in the process, create feelings of home and security among neighbours.

It is also important to note Laurier, Whyte and Buckners' (2002) description of neighbouring as an occasioned activity, primarily because being a good neighbour also means respecting the privacy of others living closest to you. And so neighbours should be helpful when the occasion calls for it, otherwise to be neighbourly is to be considerate and not to intrude. We appreciate that manifest forms of neighbouring is likely to be minimal for significant portion of residents because, with the exception of young families and retirees, our daily lives take us away from the neighbourhood. However, even minimum manifest forms of neighbouring such as the regular exchange of greetings in our daily neighbourhood routines yield important social benefits in terms of at least an understanding of our neighbours. Such minimal social forms of encounter in our everyday lives make for a sociable environment. And because we stay in any one neighbourhood for an appreciable period of time, these weak ties along with our place attachment mean that we also develop a positive latent neighbourliness and are prepared to lend support should the occasion demand it.

4. Newer Policy Initiatives in Community Development

a) The Role of Amenities and Social Activities in the Everyday Life of the Neighbourhood

Charts 1 and 2 suggest that while community organizations like CCs and RCs may be good for mobilization attempts, they are not places which the majority of neighbours visit on a regular basis. On their own, Chart 3 has indicated that residents in Singapore's public housing estates tend to adopt a minimal form of interaction such as greetings and casual conversations. Neighbours are most likely to encounter each each within the apartment block area (common corridor, lift area, and ground floor area). These are the very areas where neighbours tend to run into each other in their everyday routines and these are the places where greetings and casual conversations occur. Outside of their apartment blocks but within the neighbourhood, the interaction between neighbours tend to be low.

This very low incidence of interaction within the neighbourhood has created a new focus for policy. Given the well-developed public housing infrastructure in Singapore and the fact that 82% of residents in Singapore live in public housing estates, many country level policies are exercised within public housing estates. A Straits Times editorial (7 August 2007) highlighted that HDB is "an important guardian of Singapore's well-being". Several years earlier, Singapore's Prime Minister, Lee Kuan Yew noted that "creating HDB neighbourhoods that bind residents together in some ways is a kind of nation building in microcosm" (Straits Times, 26 February 1992). The void deck of HDB apartments, a term coined to describe the ground floor which is kept open for the through flow of pedestrian traffic between blocks has been used for the development of community activities and services.[45] Table 8 shows how childcare, family and community services have been sited at the HDB void deck spaces, thereby providing easy access to residents who need such services. Besides void decks, HDB also plan and design other facilities (e.g. town plaza, shops, markets and playgrounds) with consumption needs, play, and neighborly interactions in mind.

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45 *https://en.wikipedia.org/wiki/Void_deck*

Table 8: The Provision of Childcare, Family and Community Services within HDB Blocks

	HDB Blocks with Void Decks	Childcare Centers	Family Service Centers	Residents' Committees
1998	6258	244	149	460
2016	8061	726	203	650

Source: HDB Annual Reports FY 1998/99 and FY2016/2017

With the formation of the Housing and Development Board's community relations group (CRG) in 2009[46], the work of community development has evolved into a clearer partnership between the HDB and the PA. One project the CRG has developed is a pilot community participatory programme with some elements of the programme involving the partnership with PA's residents' committees (see second example illustrated in plate 2). The CRG pilot project set about trying to increase neighbourliness and participation by asking residents to come together to decide what additional facilities they want to see developed in their estates. Plate 1 shows a new mini-hardcourt (to the left of the picture, a small court with covered lighting in blue, with some seats which spell P L A Y) adding to the other recreational activities, a covered play area for small children (immediately left of the mini-hardcourt and behind the tree), blue hard courts for badminton and *sepak takraw*[47] (middle of the picture) and another covered basketball court (to the right of the picture).

Our observations of the mini-hardcourt indicate children appearing in the playground in significant numbers compared to adults and youths and as these observations coincided with a public holiday, the numbers are significant in mid-morning, around late afternoon and evenings. The children are often accompanied by their parents, many of whom stayed out of the mini hardcourts. The kids go back and forth in the hardcourt and the covered play area (behind the tree in Plate 1) and some pull their minders into the playground. Youths come alone or in groups, many using the seats as a convenient place to rest and check their handphones. The adults who do not appear with children are often solitary and also use the mini hardcourt as a rest area and also to check their phones.

Plate 2 shows a café and library suggested by Palmwalk residents' during the engagement sessions. HDB subsequently partnered with the Palmwalk residents' committee to realize this idea. Located at the ground floor (void deck), the coffee counter operates in the mornings and has a helper whose salary is paid for by the Community Development Council. Residents donate refreshments and various snacks and biscuits. We chose three days in December to do our observations and Chart 4 summarizes the visitor statistics by time. With Tuesday (15/12), the patrons appear earlier, peaking at 8 to 8.30. Friday traffic is a bit later, and Sunday having several peaks because the traffic is not dictated by the need to go to work.

The research team conducted an analysis of user traffic before and after the café was built which involved replacing an existing table and some chairs. The team noted that after the café was built and in operation, the number of residents seen at this ground floor area increased a mean of 10 users for the table and chairs to a significant 55 users for the Palmwalk Café for the same time period (see Table 4). Clearly, the offer of beverage and snacks in the morning brings residents to the area. We note that there are regulars such as Linda and her friends, also a group of elderly men who sit and chat and also play board games like chess or checkers. We

Plate 1: Inserting new play space to complement existing facilities. Source: Author

46   Today, (2009) "HDB turns community builder" (3 November).

47   A popular game played with a rattan ball, and which is native to Southeast Asia.

noted single adults having a hot beverage before going off to work, and also people who finished their exercise class in the nearby play area (see the covered basketball court area in Plate 1) coming to the café for a drink and snack. The idea of refreshments and snacks and also having regular patrons also mean that the average duration of usage doubled from 10.9 mins to 21.6 minutes. This intervention by the HDB and the Palmwalk residents' committee suggests that with a modest investment of a coffee area (see Plate 2), a social focal point can be created drawing in residents in the nearby area.

Plate 2: Working with residents to create a café on the ground floor (void deck) of a public housing block. Source: Author

Chart 4: Palmwalk RC Coffee counter traffic for Friday (11Dec2015) Sunday (13Dec2015) and Tuesday (15Dec2015)
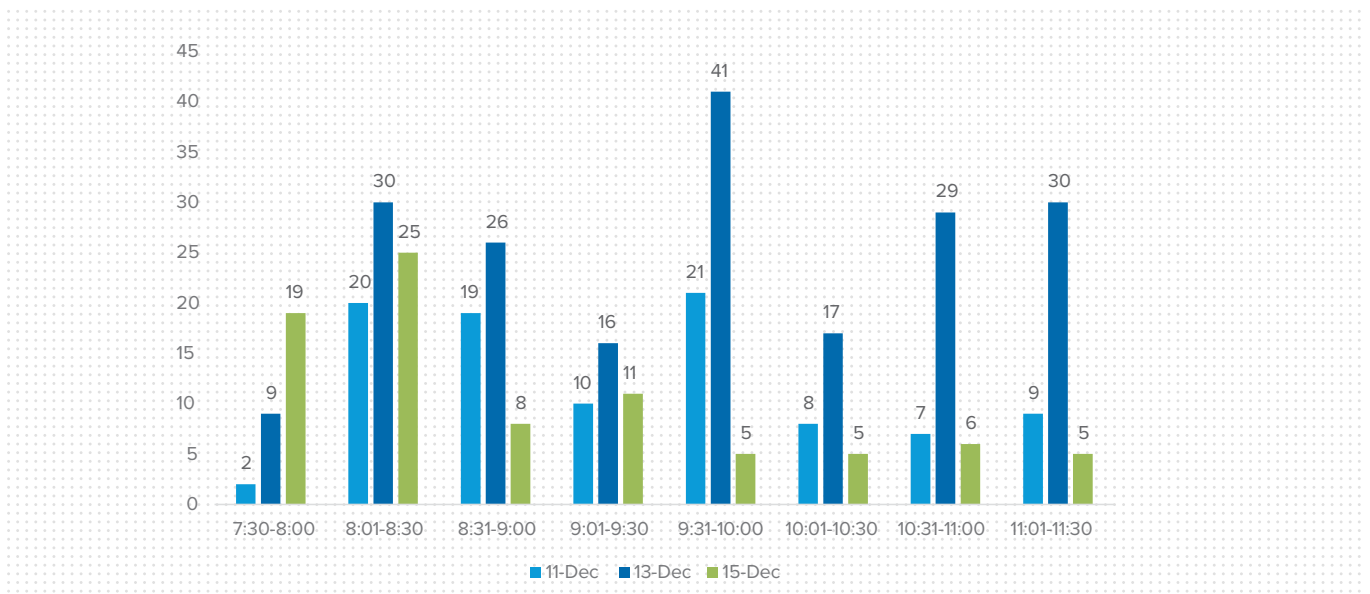
Plate 3 shows another suggestion from the residents of Tampines Central, which is the development of a plant trellis along a linkway which is often used by the residents to get to the market, shops and the bus stop.

In this particular example, HDB partnered another government agency, the National Parks Board (NParks) which came in as a resource provider of plants and expertise for the residents to green this particular portion

of the walkway. The team managed to have residents living near the trellis to volunteer to water the plants. Users of the walkway now have an added pleasant feature when they use the walkway.

Plate 3: Working with residents and Nparks to develop a plant trellis along a neighbourhood walkway. Source: Author

All three examples show how residents in public housing estates can play a part in coming together to suggest and plan neigbhourhood amenities using fairly modest budgets. Moreover, the example of the café and the plant trellis involves residents volunteering in provisioning (the café) and up-keeping (the trellis) the amenity. The mini-hardcourt (Plate 1) and the café (Plate 2) show significant traffic of users of different age groups.

b) The Task of Integrating New Citizens
As a small city-state of 5.61 million people in 2017, Singapore's population has grown increasingly diverse. Some 20,000 new citizens are added every year (People's

Association 2017, page 16). The number of permanent residents increased from over 112,100 in 1990 to 287,500 in 2000 and have stayed stable at just over half a million since 2010. It is Singapore's global city status and its economy that has led to the growth of its non-resident population, from 311,300 in 1990 to over 1.5 million since 2013. The People's Association continues to play an important role in bringing the local Singaporeans and new citizens together, to promote acceptance and care within the community, create opportunities for positive interaction, and forge stronger bonds that make for a more resilient Singapore (People's Association, 2017: 7).

The integration effort is built on the back of the network of CCs and RCs in terms of residents to engage newcomers, facilities to host meetings and activities and event planning around objectives of interaction, learning about Singapore and its diverse cultures. With PA's established network of grassroot leaders, it was easy to develop a new network of volunteers (called the Immigration and Naturalization Champions [INC]) to lead the integration effort. The PA started the Immigration and Naturalization Champions programme in 2007, and within a year, the number of INCs grew to 700 and operated in all 84 constituencies. These INCs visited 90% of new immigrants in their constituencies and had face-to-face contact

with at least half of them (ST, 27 Nov 2008). In 2012, the PA initiated 12,300 programmes involving 630,000 participants, 22% of whom were new immigrants (ST, 27 Jan 2013).

The nature of the activities maintain a balance between integration and multiculturalism. At the integration end of the spectrum is the Singapore Citizenship Journey which enriches new citizens' knowledge of Singapore's history, values and key institutions and policies, and also help them better understand Singapore's way of life, and to expand their soc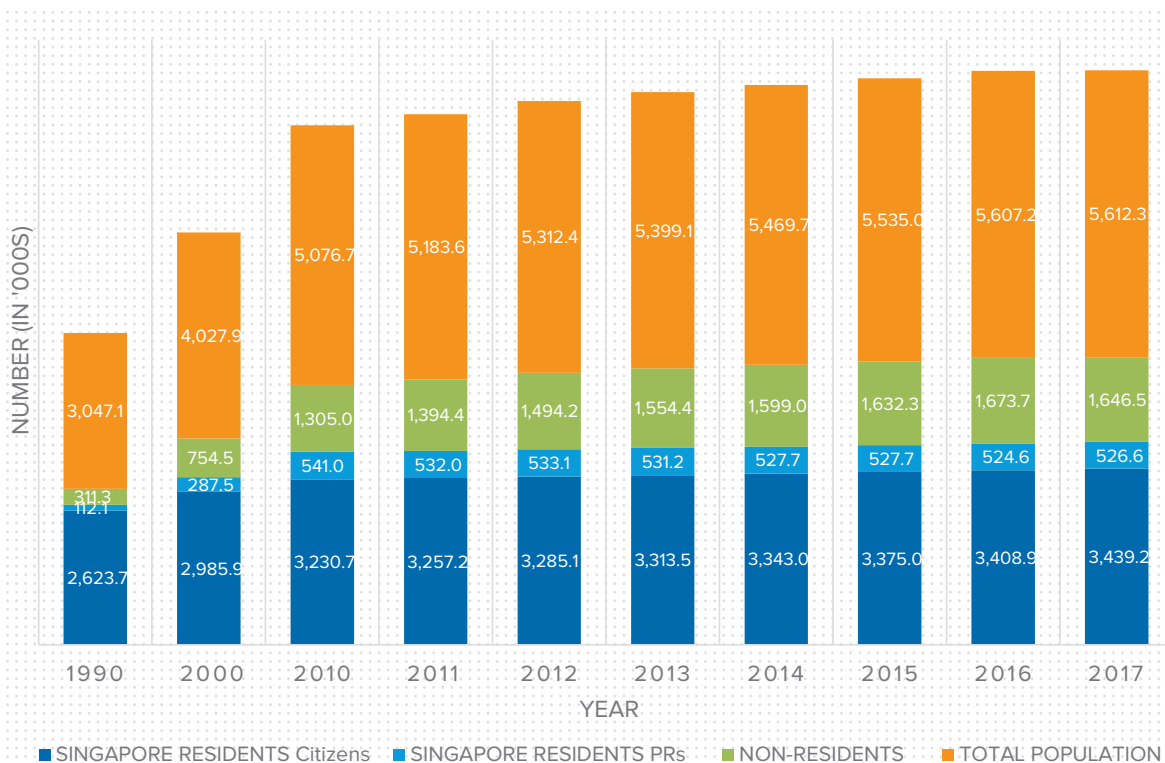ial network (PA, 2017: 27). The other end of the spectrum on multiculturalism is best expressed by Mr. Goh, a grassroots leader of the pioneer batch of INCs in 2007 remarked on involving the new immigrant on activities:

"Once contact is established, his team will step up the engagement by inviting new citizens to CC activities, asking them to get involved as grassroot leaders, and help to organize events and interest groups that tap on their passions and strengths".

(PA, 2017: 20)

It is the willingness of INCs to allow new immigrants to "organize events and interest groups that tap on their passions and strengths" that has given rise to immigrant attempts to introduce aspects of immigrant cultures and practices into Singapore. Perhaps one interesting example is the introduction of the Tamil harvest festival of Pongal to the Singapore urban community (PA, 2017: 64-67).

Chart 5: Singapore's Total Population by Residency Status

YEAR	SINGAPORE RESIDENTS Citizens	SINGAPORE RESIDENTS PRs	NON-RESIDENTS	TOTAL POPULATION
1990	2,623.7	112.1	311.3	3,047.1
2000	2,985.9	287.5	754.5	4,027.9
2010	3,230.7	541.0	1,305.0	5,076.7
2011	3,257.2	532.0	1,394.4	5,183.6
2012	3,285.1	533.1	1,494.2	5,312.4
2013	3,313.5	531.2	1,554.4	5,399.1
2014	3,343.0	527.7	1,599.0	5,469.7
2015	3,375.0	527.7	1,632.3	5,535.0
2016	3,408.9	524.6	1,673.7	5,607.2
2017	3,439.2	526.6	1,646.5	5,612.3

NUMBER (IN '000S)

Source: http://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/population_and_population_structure/population2017.pdf (accessed 11 October 2017)

c) Managing Conflicts within the Neighbourhood

Presiding Judge of State Courts See Kee Oon, speaking at the opening of a seminar on resolving community disputes noted that with Singapore being a multiracial, multi-faith and multi-lingual community living in a "small and densely populated island", and everyone going about in a fast-paced and potentially stressful environment, "these factors have the potential to stretch... and fray the social fabric of our uniquely cosmopolitan society" (Straits Times, 23 September 2016). While these factors create potential misunderstandings, stress and potential conflicts in everyday life, it is arguably at the level of the neighbourhood, where the factors of diversity in residential profile, a high density living environment, the sharing of common and adjoining spaces, and the inevitable crossing of paths in everyday routines, combine to create conflicts.

An early organizational attempt at resolving conflicts started with the official opening of the first Community Mediation Center in 1998 (Straits Times, 6 November 1998). From its start of hearing 81 cases in 1998 to a high of 1641 cases in 2008, the CMC caseload seem to have settled down in the region of 500 plus cases in recent years (Straits Times 6 November 1998; Channel NewsAsia 20 July 2009). And it is significant that disputes within the neighbourhood forms a significant proportion of overall disputes in the CMC caseload. While mediation involves disputes arising from different types of relationships, 56% of the disputes involved neighbours in 2016[48]. Neighbour disputes was 67% of the 498 CMC cases in 2010 (Today, 8 August 2011).

This initiative represents a good example of inter-agency cooperation within the government. The Community Mediation Center is managed by the Ministry of Law. And because a major source of conflict occurs at the neighbourhood level, Some PA's grassroots volunteers are trained to be informal mediators, on a voluntary basis, to be called upon as a first layer of dispute resolution among neighbours. The CMC provides training to grassroots leaders to improve their effectiveness in mediating neighbour conflicts.

Plate 5: CMC poster on How to be a Good Neighbour

Source: CMC. Used with permission in 8 September 2017 email from Deputy Director, Community Mediation Unit.

Neighbourly conflicts may also persist because of common space sharing, the regularity of noise, litter and smells associated with proximity (see Plate 5) and also because of the higher costs associated with home owners[49] moving out of the neighbourhood. The CMC can only play its role if parties are willing to come forward for mediation. In the overall interests of preventing conflicts becoming long drawn and affecting the conviviality of neighbourhoods, community dispute resolution tribunals (CDRT) came into operation in October 2015, with appointed

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48 Supplied via email from Deputy Director, Community Mediation Unit.
49 94.5% of HDB residential units are sold.

judges requiring mandated hearings between neighbours[50] in dispute, with the power to enforce a course of action which results on conflict resolution such as getting the neighbour to stop doing a certain activity which led to the dispute, the issue of an apology or the award damages to the aggrieved party (Singapore Government News, 1 October 2015).

With the formation CDRTs in 2015, an elaborate system of conflict mediation has been developed. At the level of the neighbourhood, the community development efforts of the People's Association's network of informal mediators play an important role of promoting good neighbourliness as well as be the first level of intervention in mediation when neighbours fight. The next level is a referral to the CMC where trained mediators try to reconcile the problem among willing parties. When this fails, a judge led CDRT steps to resolve the issue.

5. Conclusion

Singapore's effort at community development has had a long history from the 1960s where the concern was two-fold. The focus was on helping Singaporeans who were relocated to public housing from inner city tenement housing, urban villages and rural farming areas get reconnected and adjusting to daily living in high rise, high density environments. A second focus was to develop a extensive network primarily within public housing estates where the majority of Singapore society was residing with the purpose of using this network as a bridge between the government and the people, especially in the communication and the dissemination of policy initiatives.

Recent initiatives at community development has been influenced by Singapore's population growth and accompanying diversity. As diversity increases because of new immigrants, so to an increased emphasis on community engagement both in terms of an integration function and to mediation to prevent conflict escalation. These efforts include HDB's partnership with the People's Association in providing and maintaining a harmonious living environment; through areas such as the provision of community facilities, residents' participatory projects and dispute resolution. Another partnership is with the Ministry of Law's community mediation center and community dispute resolution tribunal working closely with the PA's grassroots to manage the disputes which arise from an increasingly more diverse population living in high rise high density public housing environments. At lastly, the creation of Integration and Naturalization Champions using People's Association's network of grassroot leaders, facilities and event planning to help new immigrants adjust to Singapore society.

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50 Co-tenants of the same household are excluded as these cases are covered under domestic disputes. Likewise mentally ill persons are excluded (Singapore Government News, 13 March 2015).

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CHAPTER 5:

Post-1990 Housing and Development Board Upgrading Programmes

Author: Michael R. GLASS

1. Public Housing Upgrading Programmes in Singapore

By the early 1990s, Singapore's considerable investment in public housing had created a landscape of housing estates that spanned the country, catering to the shifting aspirations of Singapore's citizens. As with any public infrastructure investment, the housing supply requires consistent reinvestment to ensure that units remain viable for existing residents and desirable for prospective residents. This chapter describes the housing upgrade programmes enacted after 1990, using examples from four housing estates of different ages. A key finding from the post-1990 upgrading programmes is that the successive programmes that were implemented have enabled the social regeneration of mature estates, as renewal ensures that the housing and amenities of these locations remain attractive for new generations of occupants.

Singapore's housing towns/estates can best be conceived both horizontally, and hierarchically. HDB towns and estates have been planned since the 1970s using a New Town Structural Model plan based on a hierarchal system of land use (Cheong 2017). This plan builds from the individual housing block, with community assets organized and allocated according to population characteristics and land area in what Field described as a 'textbook' formula (Field 1992). These blocks were clustered in precincts that provide certain key facilities/services, such as local retail, playground, and dining options. Precincts were arranged around neighborhood centers, which comprised food outlets, provision shops, community centres

and other facilities to support sustainable communities. Core functions such as transport hubs, retail and business centers, and government services were concentrated at a town centre, typically located at the geographical centre of a town. This new town pattern was replicated across the island, alleviating pressure on the Central Area and providing the potential for a local sense of community and place to develop over time. By 1970 the HDB had constructed 117,225 flats, and as of March 2016 1,107,835 dwelling units had been completed, and 992,472 flats were under HDB's management. By 1990 the original estates were over 25 years old, and required significant maintenance and upgrading to remain serviceable for residents. Rehabilitation and the 'asset enhancement' plans developed by the Ministry of National Development under Prime Minister Goh's administration provided different features at different scales: from upgrades and maintenance inside individual flats to block-, precinct-, and neighborhood-scale plans.

The first national housing upgrading programme introduced was the Main Upgrading Programme (MUP). The first precincts were selected in 1990, and expanded after implementation at these pilot sites. The programme ended in 2011 with completion of the last precinct. The MUP provided improvements at the flat, block, and precinct levels to blocks built in 1980 and earlier, and hence targeted the oldest estates that were at most risk of functional obsolescence or significant problems, such as spalling concrete.[51] Affordability of the upgrades was a key concern for the government, and so the costs were heavily subsidized: the government bore

75-90% of the costs for precinct, block, and flat works, with flat owners responsible for paying the remaining balance. Straw polls were conducted for residents to share their views and give suggestions on the preliminary design proposal. All feedback and suggestions were carefully considered and incorporated into the final design proposal if feasible and if the budget allowed. The programme was voluntary, requiring at least a 75% majority of eligible flat owners voting in favour before MUP work proceeded. Despite the opportunity to opt-out of the MUP, very few precincts did so because of the benefits and heavily subsidized nature of the programme. Flat-level upgrades included concrete repair, the optional addition of extra space, and toilet upgrading. At the block level, lift lobbies were upgraded and new letterboxes were provided. At the precinct level, features including covered linkways, drop-off porches, and fitness corners were provided. Given the success of the MUP, an Interim Upgrading Programme (IUP) was introduced in 1993. This programme resembled the MUP, requiring flat owner support but targeting middle-aged estates that were not old enough to qualify for the MUP. The IUP focused solely on block- and precinct-level improvements, with improvements carried out inside flats. The government bore the entire cost of the improvements undertaken through the IUP.

The MUP was open until 2006, when the last batch of precincts were selected. As the MUP is a capital-intensive programme, to benefit more residents, new targeted and smaller scale upgrading programmes focusing on different aspects of the HDB's housing stock were introduced. The Home Improvement

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51   Spalling refers to the flaking or peeling of concrete as a consequence of water penetration. This is a chronic circumstance in tropical environments, although the term also describes concrete damage from freeze-thaw cycles in temperate and cold climates.

Programme (HIP) began in 2007, providing flat-level upgrades. The two core concerns for HIP were improvements that would extend the lifespan of individual flats, and upgrades that would enable older residents to age in place. Therefore, Singapore Citizen flat owners in blocks choosing to undertake HIP all gained "essential" improvements paid for by the government, while Singapore Citizen flat owners could opt for Optional Improvement items by co-paying 5 to 12.5% of the cost while the Government subsidized a majority (87.5% to 95%) of the cost. Essential Improvements included repair of spalling concrete/structural cracks, replacement of waste discharge pipe, replacement of pipe sockets with clothes drying racks and electrical load upgrades. Optional Improvements included upgrading of bathrooms/toilets, replacement of main doors, grill gate and refuse chute hopper, ramps to negotiate level differences in the flat and/or at the main entrance, grab bars within the flat, and slip-resistant treatment to floor tiles of bathrooms/toilets. Another mobility-oriented improvement project began in 2001, with the introduction of the Lift Upgrading Programme (LUP). This project provided lift access to every floor of HDB blocks, rather than to every second or fourth floor, as was the case in earlier designs. The LUP also required a 75% majority support before implementation, with Singapore Citizen flat owners paying up to SG$3,000 towards the costs. The Interim Upgrading Programme Plus (IUP Plus) was introduced in May 2002. It was a combination of the IUP and the LUP. With this combined programme, HDB flat owners did not have to wait for two separate programmes which were carried out at different times. More flat owners could benefit from then an earlier lift upgrading and enjoy the benefits of interim precinct upgrading as well.

The Neighborhood Renewal Programme (NPR) was introduced in 2007 and targeted a larger-area comprising two or more neighboring precincts. This program focused on block and precinct level improvements and involved actively engaging the community through town-hall meetings, smaller-group dialogue sessions, and public exhibitions to understand and seek feedback on the specific improvements that residents thought could benefit their neighborhoods. The NRP is for blocks built up to 1995 that hadn't gone through the MUP or IUP or IUP Plus, with all costs borne by the government. Given the emphasis on community engagement, the outcomes of the NRP are more varied across Singapore. Example projects include new multi-generational playgrounds, sign upgrades and walkways at Ang Mio Kio (Council 2013), or outdoor stages, public spaces, and sheltered walkways at Braddell Heights (Committee 2016).

The most recently enacted programme, Remaking Our Heartland (ROH), was announced in 2007. Besides upgrading of individual housing precincts carried out on specific sites of a certain age, the ROH programme focuses on renewing and remaking the HDB heartlands on a town-level to transform HDB towns into distinctive and endearing homes for Singaporeans while meeting the ever-changing needs of a diverse community. Depending on the age of the towns/estates, the plans will be tailored to suit the needs of the selected towns with the aim to realise (young estates), rejuvenate (middle-aged estates), and regenerate (mature estates). These proposals included opportunities to rejuvenate the existing town centre, provide more facilities for recreation and leisure, inject new housing developments and improve existing connectivity. This large-scale rejuvenation of HDB towns uses citizen

participation strategies to allow HDB planners to better understand residents' needs and to fine-tune the ROH proposals so as to ensure that the plans will benefit as many residents as possible. This can be seen from the public engagement sessions being carried out in early stages of planning under the recent series of ROH programme.

The Selective En bloc Redevelopment Scheme (SERS) is part of the Government's Estate Renewal Strategy to enhance the living environment of older HDB estates. Introduced in August 1995, the scheme targets older blocks in areas with redevelopment potential that also include available land for replacement housing (Lau 1998). To date, 80 sites consisting of about 40,000 sold flats across Singapore have been announced for SERS—a relatively small figure that reflects the selective nature of the programme. Blocks selected for the programme are acquired under the Land Acquisition Act, and flat owners are given market compensation for their existing flats. SERS flat owners will be given assured allocation of new replacement flats with a fresh 99-year lease. The replacement flats are sold at subsidized prices that are frozen at the time of announcement. This provides SERS flat owners with more certainty, as the selling prices will not change due to future market movements. Once SERS flat owners have selected their replacement flats, surplus flats will be released for sale to the general public.

SERS contrasts with other post-1990 housing upgrading programmes because the decision to redevelop these blocks rests with the Government, rather than being voted by residents (Eng and Kong 1997). The redevelopment of older housing blocks is contextually necessary, given Singapore's spatial constraints and the associated need

to optimize and coordinate land use across the country. HDB's surveys of SERS residents show strong satisfaction with the programme. Beyond the objectives of optimizing land use and rejuvenating old HDB estates, another desired outcome of SERS is to retain existing community ties built over the years even as residents are relocated to their new homes. SERS residents have expressed satisfaction that the scheme enables them to remain in their own neighborhoods throughout the SERS process, hence preserving the sense of place and community that the residents value (HDB 2013).

The executive condominiums in Singapore represent a different form of housing that have emerged since 1990. Introduced in 1995 during the period of high property prices, the Executive Condominium Housing Scheme (ECHS) provided a form of affordable private housing to cater to the aspirations of young professional/graduate first-timer households who could not afford a private home. The executive condominium programme is a public-private partnership, where the government tenders land to property developers who design, construct, and finance the properties (Phang 2001). Features of the executive condominium developments include 24-hour security services, club houses, swimming pools, and other markers of private prestige (Pow, 2009, 219). In addition, as private housing, executive condominiums are exempt from the ethnic quotas that characterize Singapore's housing policies (Pow 2009). New EC units are sold with initial eligibility and ownership restrictions similar to public housing, but at a higher income ceiling. The ownership restrictions for ECs are relaxed in phases at 5- and 10-year intervals after the Temporary Occupation Permit for the project is attained. The programme provides condominium

towers that are somewhat larger than standard HDB flats, and that give owners the prestige of living in private property while still having access to the public amenities of HDB estates (Eng and Kong 1997: 448). Whereas the infiltration of public-private developments into Singapore's housing estates could be criticized as diluting the overall precepts of Singapore's public housing system, Pow argues that the Singapore government has introduced this style of housing in a cautious manner, providing some capacity for private developers to meet the shifting aspirations of Singapore's upper-middle classes, yet in a manner that also legitimizes the role of the state in guiding housing options within the country (Pow, 2009).

2. Upgrading in Action

While Singapore's housing system is predicated on its unique social and political system, aspects of the estate renewal programmes could feasibly be implemented by other housing systems. The case studies provided here (Yishun, Queenstown, and Bedok—see Table 9 for population counts by housing type for the Planning Areas that contain these towns) show different stages of the renewal process and indicate what renewal policies could be adopted by other housing systems. Yishun, and the Dawson Estate in Queenstown were chosen because they were all first-phase entrants in the Remaking our Heartland (ROH) programme, enacted in 2007. Queenstown is the oldest satellite town in Singapore and is an example of how the Dawson estate was transformed with the introduction of new generation housing developments. The completed housing developments in Dawson estate are 'Build To Order' (BTO) developments (i.e. SkyVille @ Dawson and SkyTerrace @

Dawson) that provide new forms of public housing for modern consumers. Yishun is a middle-aged town, and is an example of how the use of environmental features can provide an enriched experience for senior residents. The Yishun case is also illustrative of the blending of residential and commercial upgrades, as these changes are often planned to occur in unison. The Bedok case was selected to illustrate a mature estate that has undergone various upgrading through the NRP and MUP programs. Bedok is part of a larger East Coast area that has also been selected under the 2nd phase of the ROH programme and it illustrates how public consultation process was adopted to ensure that plans were relevant to the residents. All three case examples share characteristics with the many towns across Singapore that have undergone the ROH, NRP and MUP programmes. However, these case studies also attempt to display that the various improvement programmes and proposals are tailored to the site context and needs of each town/estate, rather than being implemented without sensitivity to context.

The Bedok case was selected to illustrate a mature estate that has undergone various upgrading through the NRP and MUP programs

Table 9: Bedok, Punggol & Yishun Population & Housing Type

| | Total--Bedok | HDB Dwellings | | | | | Condominiums and Other Apartments | Landed Properties | Others |
		Total HDB	1- and 2-Room Flats	3-Room Flats	4-Room Flats	5-Room and Executive Flats			
2000	284,970	210,120	7,880	71,900	76,560	49,770	25,020	46,610	3,220
2005	280,060	196,270	8,040	63,360	73,540	49,680	35,800	45,490	2,500
2010	294,520	203,560	9,240	66,970	76,230	51,120	41,910	45,920	3,140
2015	289,750	193,060	9,640	62,060	72,370	48,990	48,690	45,160	2,840

| | Total--Queenstown | HDB Dwellings | | | | | Condominiums and Other Apartments | Landed Properties | Others |
		Total HDB	1- and 2-Room Flats	3-Room Flats	4-Room Flats	5-Room and Executive Flats			
2000	97,860	85,730	8,650	49,780	15,970	11,320	6,800	3,700	1,630
2005	92,970	78,670	7,240	42,930	16,480	12,020	9,500	3,530	1,270
2010	98,500	83,000	8,300	40,700	20,660	13,350	10,330	3,700	1,470
2015	98,050	81,870	9,070	34,190	24,290	14,320	11,140	3,740	1,300

| | Total--Yishun | HDB Dwellings | | | | | Condominiums and Other Apartments | Landed Properties | Others |
		Total HDB	1- and 2-Room Flats	3-Room Flats	4-Room Flats	5-Room and Executive Flats			
2000	177,210	171,780	80	38,180	92,930	40,590	1,500	3,000	930
2005	174,520	166,100	300	35,780	89,700	40,320	4,620	3,180	630
2010	185,210	174,080	690	39,380	92,830	41,190	5,360	4,970	800
2015	201,970	186,770	4,130	39,960	99,030	43,660	8,970	5,290	950

Source: Singapore Dept. of Statistics, Residents & Housing Types by Planning Area/Subzone 2000-2016. Note that Planning Areas do not correspond precisely to HDB town boundaries.

Yishun is an HDB Town located in Singapore's northern region. Yishun was selected as a case study because it was one of the first three towns to participate in the ROH programme in 2007. The area was prepared for intensive urban development by the government in the 1970s under the New Town plan; Yishun Town began construction in the mid-1970s, and by 1986 the town included over 28,000 units and 110,000 residents (NHB 2017). According to the HDB Annual Report 2014/15, there were 56,698 dwelling units under HDB's management and the estimated resident population staying in HDB flats was 186,600 as at 31 Mar 2015 in Yishun (HDB Town). Yishun is notable for the ring road that was designed to facilitate mobility around the town; the Yishun Town Centre is located at the epicenter of the ring road, and includes the town's Mass Rapid Transit station, a nearby bus interchange and major shopping center. As with other new towns, Yishun contains a mix of religious, commercial, and social facilities, and a mixture of housing types.

Since 1990, Yishun's physical appearance has changed due to several upgrading plans. The first of these upgrades was not part of an HDB project, and was instead due to grassroots action by shopkeepers who sought to keep their businesses viable after the Yishun Town Centre's Northpoint Shopping Centre opened in 1990. The local response to this development was the coordinated rebranding of a commercial area along the Yishun Ring Road as Chong Pang City. This area of shops, businesses, and dining facilities was designed with a unified appearance, and illustrates that not all urban redevelopment is initiated by the Government. State-directed upgrades were announced in 1996 and 2008, both focusing on neighborhood and town-level infrastructure. The 1996 plan provided for upgraded shopping and dining areas across the estate, as well as significant community gathering spaces. The 2008 plan piloted the principles of Singapore's ROH programme, seeking to rejuvenate Yishun through new community facilities. These plans included significant green spaces, including the rejuvenation of Yishun Pond and construction of a 3-storey lookout tower and walking trails that linked to the new Khoo Teck Puat Hospital. Cycling tracks,

playgrounds, and electricity upgrades were also provided as part of the scheme, with several of these upgrades to be completed by 2017 (Naido and Noorainn, 2016). The Yishun Town Centre is planned for revitalization in stages through to 2020. Developments planned for Yishun Town Centre include commercial retail spaces, private housing residences, a new air-conditioned bus interchange, a new community club and a new Town Plaza.

Figures 6-9 illustrate some of the features at the Yishun Estate developed as part of the ROH programme. There is a mix of housing blocks adjacent to the Town Center, including the 11-storey blocks commonly built by the HDB during the 1980s, and newer Design, Build and Sell Scheme (DBSS) units like Adora Green. The Yishun Pond (Figure 6) provides a central amenity for the Town Center, Khoo Teck Puat Hospital, and residents of the town. Walking around the town, different upgrades are evident that complement the mix of new and established HDB blocks. For instance, commercial areas across the estate feature newly painted facades and improved pavement, while playground spaces and rejuvenated public areas are intended to facilitate use by different generations of residents (Figure 7). Evidence of communication efforts with residents included signage providing information about the type of improvement programmes being undertaken, as well as contact information about the people responsible for such programmes. Such information serves multiple purposes. For instance, it provides accountability for residents, as they are aware of whom to contact if there are problems with the programmes (Low et al. 2012). It also informs residents about the less visible forms of upgrading that are in progress, such as electrical upgrades. Finally, there is also the pragmatic and political purpose of the advertising, since it reminds the electorate that the government facilitates and underwrites the upgrades—with the tacit message that other parties might not provide the same focus. It is therefore important to note that the Singaporean housing story includes an implicit political component, where the upgrading policies are linked to a broader assertion of state authority over the country's growth and development.

1. Figure 6: Yishun Pond (Photo by author)
2. Figure 7: Upgraded Playgrounds at Yishun 2 (Photo by author)
3. Figure 8: Chong Pang City (Photo by author)

The rejuvenation of Yishun town shows how the HDB has prioritized mobility, transit-oriented development, and communication as part of their ROH plans. Improvements include the enhancement of natural amenities like the Yishun Pond and other green spaces for recreational use. New cycling tracks along the pond and adjacent to the MRT line are enhancing the capacity of residents to select between different modes of transportation for commuting, or to use these new communal facilities for exercise. Enhancing the multi-modal transportation options for the estate through upgrading of the Bus Interchange provides greater connectivity between Yishun and other parts of Singapore, and internal connectivity between the different neighborhoods of the estate.

The Yishun case study demonstrates the priority placed on community engagement by the HDB. Communicating with residents about the plans to be undertaken in the community reduces the likelihood for misunderstandings, and establishes clear lines of communication with residents who might have questions about the proposed or ongoing works within their town. There is certainly a clear political component to the communication, since local elected officials can tout neighborhood upgrades as an achievement. The ROH programme in Yishun also shows how the HDB is concerned with meeting shifts in consumer behavior. As citizens become more health conscious and environmentally aware, different modes of transportation are necessary. The provision of new bike trails helps to promote more active lifestyles, and creates new interconnections across the housing estate. Walking trails through the estate that link natural amenities also create new points of interest, and benefit the senior population who wish to age in place within Yishun.

Bedok is located along the eastern part of Singapore and was planned and developed as the first town of the Eastern Region. Early plans to develop Bedok into an HDB town began in 1963. That was when HDB, on behalf of the Government, undertook a pilot East Coast reclamation scheme using earth excavated from the Bedok area. Clearance of the town and the fishing kelongs began in 1965, with squatters in the area resettled to Upper Changi Road Estate. In terms of population, Bedok continues to be ranked in the top ten largest estates (Eng 2009). Bedok has an estimated population of 196,400 residents, with a total of 61,100 dwelling units managed by the HDB (HDB Annual Report 2016/17). This large population reflects the greater national diversity, but also maintains one of the largest elderly populations of all estates (Eng 2009). As a mature town, Bedok has continued to attract the younger generations, with its well-developed transportation nodes and a wide array of amenities, e.g. variety of commercial facilities such as the more recently completed Bedok Mall, parks including Bedok Reservoir Park. Bedok includes a variety of flat types including 3-room, 4-room, and executive flats (URA 2013). Other important features of Bedok include the Bedok Reservoir, a popular recreation location, and Bedok Stadium, with a variety of fitness facilities (ActiveSG 2017).

Strategic upgrading and rejuvenation has helped to transform Bedok into a bustling town. The Main Upgrading Programme provided residents with improvements including new playgrounds, covered walkways, and landscaped areas. Flat improvements continue today, and residents can select from a variety of options to meet their needs and income capacity. Residents are able to remain in their households through the process (URA 2013). This non-intrusive improvement programme increases resident satisfaction and maintains community ties over time. Residents of the estate have had access to home improvement programmes, and older blocks have benefited from the Upgrading Programme. Today, most blocks within Bedok have lift access on every floor. The HDB and its affiliates have also increased density within the estate through rebuilding of entire blocks through the SERS scheme. This scheme gives priority to those who lived in the block previously, while also

allowing for new, younger families to move into core areas of the estate. The success of these programmes has created an environment where further upgrading and development is embraced and accepted by most of the population.

Announced in 2011, Bedok is part of a larger East Coast area that was identified to be rejuvenated under the second phase of the Remaking Our Heartland (ROH) programme. Positioned as the "Gateway to the East Coast," the proposals were framed to capitalise on the area's strength and opportunities. Since the announcement of the ROH plans, the East Coast area has been revitalised holistically. In particular, the Bedok Town Centre has been transformed into a vibrant Gateway hub with the opening of the Bedok Mall that is integrated with the Bedok bus interchange and a private condominium (i.e. Bedok Residences), introduction of a new Bedok Interchange Hawker Centre, an injection of a new Bedok Town Square cum heritage corner to facilitate community bonding, and an enhanced pedestrian thoroughfare (i.e. Pedestrian Mall) to provide residents with seamless connectivity to the new developments in the town centre. The latest addition to the town centre is the recent completion of the Bedok Integrated Complex (namely Heartbeat@Bedok) that houses Kampong Chai Chee Community Club, Bedok Sports Centre (comprising a swimming complex, a sports hall and a tennis centre), Bedok Polyclinic, an Eldercare Centre and Bedok Public Library.

Beyond the Town Centre, residents can also use the Outdoor Play Corridor (OPC), which is a dedicated cycling and pedestrian paths connecting Bedok Town Centre to East Coast Park and Bedok Reservoir Park, on top of the enhanced cycling network that connects to the main activity nodes such as the neighbourhood centres. In addition, a Bedok Heritage Trail consisting of storyboards located at areas of historical interest within the East Coast area has been implemented, to provide residents and visitors an opportunity to connect with the rich history of the area. The East Coast ROH plans also include the upgrading of eight Neighborhood Centres to better enhance residents' shopping experience. Upgrades at this level included entrance markers, community plazas, improving landscaping

and installing vertical gardens, as well as street furniture and lighting. The goal of these initiatives is to establish and identify the unique character that exists within each neighborhood (HDB 2015).

When the ROH plans for East Coast were unveiled in 2011, an exhibition was held to invite feedback from the residents/public via a survey to gather public sentiments on the proposals. Where necessary, the proposals were refined to incorporate public's feedback. Subsequently, progressive public updates were provided at various key implementation milestones via exhibitions and events. This included an exhibition in 2012 to update residents on the rejuvenation plans for the Bedok Town Centre and to mark the ground-breaking ceremony for the new Bedok Interchange Hawker Centre, and another round of public exhibition in 2015 dovetailed with the celebration of the completion of the Bedok Interchange hawker centre. Such engagement efforts have helped to sustain public's involvement and interest, and to ensure that plans developed earlier were still relevant to residents and stakeholders.

Figure 9: Bedok Heritage Corner (photo by author)

Figure 10: Bedok Pedestrian Mall (photo by author)

Bedok has benefitted from various upgrading programmes over the last thirty years. The work by the MND and agencies has spurned regeneration, or new life and growth, within the town. The upgrading programmes have improved the quality of life of the residents, and given them incentives to stay, while also attracting new families to move into the town with its modern amenities. The old and new flow together to create a unique experience within Bedok that honors the history and heritage, while still responding to existing needs and pressures.

The success of upgrading programmes in Bedok is largely due to the government's ability to accurately incorporate community input and define goals for the community. It was evident upon visiting Bedok that the town is well established and thriving. HDB upgrading programmes have successfully integrated older aspects of the town to newer additions and redevelopments. Calculated steps have been taken to address the needs of its population in a variety of ways, including improvements to the hardware to increase accessibility for all, and bringing in new commercial infrastructure and other facilities to continue attracting younger households to the area, while providing for public spaces e.g. town plaza to facilitate the building of community spirit (i.e. software). Despite the many newer developments, the projects in Bedok continue to maintain connections to the past. The Heritage Trail and the Heritage Corner allow this history to become a part of the newer structures. The approach to allow community involvement as part of the plans is a major influence on the success of the town.

The regeneration of Bedok, a mature town, shows the benefits of a highly functioning public housing institution. Bedok provides insight on how the housing system to continues to sustain itself and address the needs of its population. It implements programmes and schemes that focus on the long-term livelihood of the community and reflects the changing aspirations of the systems. Upgrading programmes provide opportunities to attract younger generations to established estates. The initiatives in Bedok, as well as other national initiatives have allowed for the population in the town to remain relatively constant, and incredibly diverse. Rather than fade with an ageing population, Bedok continues to be reborn to meet the needs of younger Singaporeans, while also making life more accessible and connected for older generations. Although Bedok is a mature town, it continues to reflect the current priorities of the government, including neighborhood identity and dynamic social cohesion.

Case Study 3: Queenstown

Queenstown was the first satellite town organized by the Singapore Improvement Trust in the 1950s, in response to postwar concerns about the country's housing situation. Subsequently in the 1960s, the Housing and Development Board took over the development of Queenstown as part of HDB's first Five-Year building programme. Queenstown shows the imprint of successive generations of experimentation and change in Singapore's housing policy. Located to the South-West of Singapore's Central Business District, Queenstown had a population of 98,050 in 2015, of whom nearly 82,000 live in HDB flats. The public housing available in Queenstown is diverse in terms of both style and age, from first generation public housing to new "Build to Order" (BTO) projects including SkyVille @ Dawson and SkyTerrace @ Dawson. Queenstown also includes several announced SERS sites that have gradually been redeveloped to optimize land use and rejuvenate this mature satellite town.

Figure 11: Skyville @ Dawson

Queenstown's Dawson Estate was one of the first three towns/estates (along with Yishun and Punggol) selected for the ROH programme in 2007. Under the ROH plans, Dawson is envisioned to be an estate with public housing set in a park-like environment based on a 'Housing-in-a-Park' concept. The transformation plans for Dawson are aimed at creating a new and improved living environment for residents, and injecting greater vibrancy into the estate by attracting younger families to it. The aforementioned SkyVille @ Dawson and SkyTerrace @ Dawson launched under the ROH initiative for Dawson estate, have incorporated new housing concepts, such as flexibility in designing internal layouts, loft units and paired units for multi-generational living. The two housing projects of between 40 to 47 stories include unique features such as sky gardens and landscaped sky terraces that create a scenic park-like environment for residents (Figure 11). The housing projects are situated adjacent to the Alexandra Canal Linear Park—a park connector linking Commonwealth Avenue to Tanglin Road. In addition, the ROH plan includes preserving the rich heritage of Dawson such as the Heritage Wall at SkyVille @ Dawson that comprises a series of wall murals that trace Dawson's history and its iconic landmarks over the years as well as the conservation of the former wet market at 38 Commonwealth Avenue that would be refurbished to house shops that serve the daily needs of residents in the area.

In addition to the modern and architectural design aspects that were integrated into the public housing projects in Dawson, the projects also feature pilot schemes to cater to the changing needs of Singaporean citizens. The Multi-Generational Living Scheme at SkyTerrace @ Dawson allows parents and children to buy paired units - two separate units with connecting doors to allow families to stay close and yet maintain their individual privacy. The Flexi-layout Scheme at SkyVille @ Dawson gives buyers three flexible layout options to serve different family requirements. After announcement of the Dawson ROH plans, 30 old blocks comprising 3,480 flats along Tanglin Halt Road and Commonwealth Drive were subsequently announced for SERS in 2014. To provide replacement housing for the SERS residents, HDB would provide about 3,700 new housing units, new commercial spaces, and a hawker center at the Dawson estate.

3. Learning from the Singapore housing model

While Singapore's system is a consequence of context, the HDB's recent focus on upgrading the existing housing supply does contain lessons that other systems can follow (See Table 10, Exporting Neighborhood Upgrading). Confronted with an aging housing supply and changing demographic conditions, the post-1990 renewal programmes shared a vision of enhancing the quality of the built environment. This included place-making strategies that accentuated the local identity of housing estates, and that reflected a generational shift toward more active lifestyles and the desire of senior residents to age in place. Table 10 defines the three general attributes of Singapore's upgrading programmes that can be used in other housing systems. First, the Singapore programmes relied on different forms of community engagement. The upgrading programmes provided the opportunity for resident feedback about the improvements that residents wanted included in their precincts. Keeping residents informed should be a universal principle in housing redevelopment, but needs to be embedded throughout the process. Second, the Singapore programmes benefit from economies of scale. Whereas HDB projects are generally tendered separately, the HDB stages upgrading activities to maximize the work of contractors, and minimize the disruption to residents. This approach succeeds because of the intentional way that Singapore's housing estates are conceived and structured, with block-precinct-neighborhood scales used to organize planning about what upgrades are needed in any given towns/estates. Third, the programmes succeed because of a focus on market intelligence. This entails consistent research about the changing patterns of demand for current and prospective consumers of public housing, including the types of units and community amenities that are sought. This information can arise from official research as well as informal points of contact between the housing authority and residents. In Singapore, the latter occurs through the Town Council and Peoples' Association structures, but similar community organizations can be developed elsewhere.

Finally, the progress of Singapore's public housing model over the past fifty years can give a false sense of inevitability around the upgrading programmes that are currently used across the country. It is not the case that present programmes like the Remaking our Heartland initiative or the Neighborhood Renewal Programme were envisioned or planned for at the start of the Goh administration's push to reinvest in Singapore's housing system. Rather, there was a learning process and a capacity for institutional adaptation that shaped upgrading policies over the past twenty-five years. The capacity for introspection and reflective modification of less successful policy is the active consequence of organizational structure, rather than an accidental event. Therefore, it is recommended that other housing systems learn from the way that the HDB has developed a culture of excellence that enables the organization to deliver consistent results to the country's

Table 10: Exporting Neighborhood Upgrading

Exporting Neighborhood Upgrading		
Vision: Enhancing Quality of Life for Public Housing Residents		
Engagement	**Scale**	**Demand**
• Maintain communication with residents • Provide upgrading options within set parameters determined beforehand • Provide the option to opt-in or opt-out of upgrading schemes • Work within existing structures to activate and empower local community members (i.e. Town Councils and People's Associations) • Provide subsidies for upgrades, but require some level of payment from residents	• Maintain a vertical hierarchy that establishes nested priorities at every structural level (i.e. unit, block, precinct, neighborhood) • Organize estates and blocks by age and other categories to better establish priorities for upgrades and renovation • Control expenses by tendering upgrading contracts in proximity to minimize disruption and maximize economies of scale	• Think holistically about amenities that consumers will desire • Monitor shifts in household composition and changing consumer preferences for public housing • Limit getting too far ahead of the market and work within reasonable planning time horizons

citizens. While this ethos has developed over an extended period, there is little in the organizational structure that could not be emulated elsewhere. For instance, the HDB includes groups that conduct research, data monitoring, and experimentation. In the context of housing upgrading programmes, such monitoring and evaluation enables the country's public housing stock to remain viable for future generations.

Whereas the Singapore system is renowned for its efficiency and lengthy commitment to social housing, this does not limit the transferability of certain principles into other contexts. Singapore's housing model has adapted as the needs and aspirations of its citizens have changed, and as the country has matured. The current focus of the HDB and MND is now on creating highly attractive spaces for the next generation of residents.

These programmes are based on principles of engagement, scale, and research, and can be implemented by housing authorities that similarly seek to enhance the physical environment of their properties.

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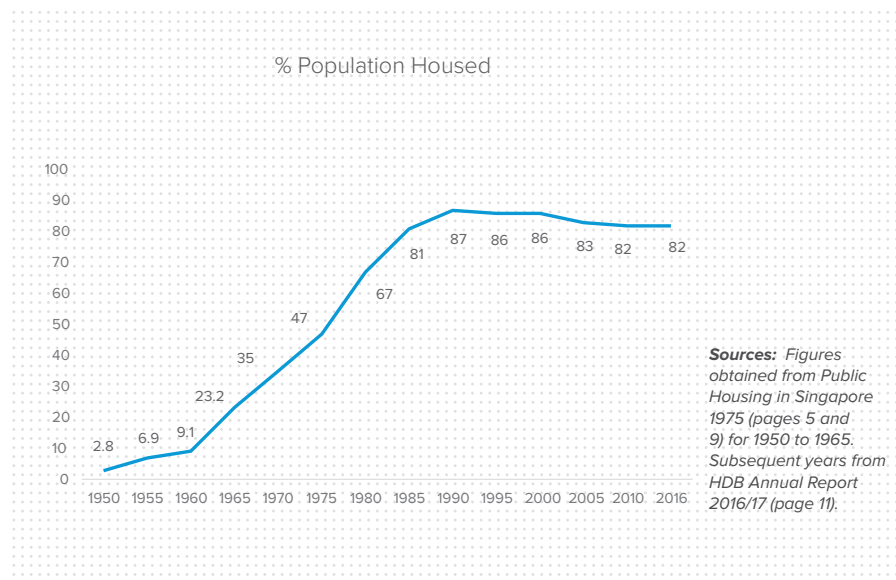
CHAPTER 6:

Public Housing and Society

Author: K.C. HO

It is significant that the writing for this particular publication started in 2017 and this coincides with 90 years of public housing in Singapore under two housing authorities, the Singapore Improvement Trust (1927-1959) and the Housing and Development Board (1960-2017). Within this 90-year period, we have seen the percentage of the population living in public housing grow from 2.8% and peaking at 87% before tapering to 82% (see Chart 6). One way of understanding the relationship between public housing and society is to see type of policy is possible or can be added when the level of housing provision increases progressively to up to 82% of the local population.

The Table which follows notes the time period, the percent of households living in HDB apartments, and then examines the key policy initiatives of the period.

Chart 6: Percentage of Singapore households in public housing (1950-2016)

% Population Housed

Percent of Households Living in HDB dwellings	Key Policy Elements and the Evolution of a Public Housing System
2.8% in 1950	**1927 to 1950** The development of an official narrative around housing as a public responsibility, the legislative changes, which are necessary, and the financing which has to be committed (see Chapter 1) 1927 Singapore Improvement Trust (SIT) formed as an urban improvement authority 1939 SIT given power to build. At 2.8%, public housing allocation is highly restricted because of the small public housing stock. This can represent the beginnings of a welfare policy to help the urban poor.
9.1% in 1960 **23% in 1965**	**The 1960s** The growing stock of public housing establishes a critical set of services around planning, site evaluation, and estate management. Increased government commitment to public housing was evidenced in several policies. The introduction of the home ownership scheme in 1964 (Chua and Ho 1975, pg. 65) is a radical shift away from a public housing rental system and envisions a move towards affordable housing for a larger segment of society (see Chart 1). The decision to shift from rental to home ownership in public housing is a pivotal moment in 1964 because this requires a much more elaborate housing system. The 1964 decision became the foundation for the 1968 decision to finance purchase out of retirement funds. New applications for housing purchases jumped from 8048 units in 1969 to 20, 598 in 1970 (Chua and Ho, 1975, p. 65). In contrast to rental, home ownership allow for recirculation of resources back to the housing production system. At 9%, the system is still catering to the urban poor and for special access groups like civil servants. However, as the figure climbed to 25%, the reach of public housing went beyond the urban poor and incorporated low middle class home owners by the late 1960s.

35% in 1970 **47% in 1975**	**The 1970s** A commitment to public housing also required more land to be released and the passing of the 1966 land acquisitions act[a52] allowed the government more leeway in assembling the land for needed for public housing[53]. In 1973, the government announced its intention to build middle income public housing (Liu, 1975: 129). In 1977, there was an associated commitment to new town planning and with it, a systematic consideration to amenity provision. As pointed out by the HDB, "The turning point from a flat builder to a new town developer was around 1977 when the waiting list fell to a trough. That led the Board to believe that the backbone of public housing shortage was broken and it was time to pay more attention to qualitative improvements of the housing estates (HDB, 1985: 13). Lui Thai Ker, the chief executive of the HDB at that time noted that by 1981, 77% of the public housing units were in new towns (1982: 135). This is testimony of the major new towns built during this period, after Queenstown in the 1950s, Kallang Basin and Toa Payoh in the 1960s, Telok Blangah, Woodlands phase 1, Bedok, Ang Mo Kio, Clementi and Ayer Rajah were initiated in the 1970s (Liu, 1975: Table 11). Yeh (1985: 87) noted that Bedok and Ang Mo Kio have a wider variety of room types and therefore accommodate a wider cross-section of the population. At arounfd 50,000 dwelling units, both are almost one and a half times the number of flats in Toa Payoh. In 1985, they jointly accommodated 20 per cent of the Singapore population. This focus on new town development was on a much larger scale and dramatically increased the number of public housing units available. As a result, the percentage of households living in public housing reached 47% in 1975. At 35%, we see the beginnings of a nation-wide policy to benefit larger segments of society. And by the time we reached 47%, the possibility of a policy disseminated within public housing estates could have the status of a national policy. The community mobilization programmes of the People's Association is a good example (see Chapter 4)
67% in 1980 **81% in 1985**	**1980s** Focus on Home Ownership leads to a stop in construction of rental flats in 1982 which resumed in 2006 (see Chapter 2). The percentage of households living in HDB apartments has reached 80 plus per cent by the 1980s. Haila (2016: 100-101) observes that this is a very high figure compared to comparable figures in Europe ranging from 10% in Munich to 56% in Amsterdam (see Table 5.2). There are several implications of such a high figure. First, the 80% mark creates a way of orienting other policy initiatives around public housing estates, community development, transportation, health and education planning. Second, the 80% creates a large public housing resale market. Worries about ethnic segregation via resale market reallocation led to the development of the Ethnic Integration Policy in 1989 where ethnic quotas are set to maintain the ethnic balance at the neighbourhood level (see Chapter 3). Third, Chua (2017: 96) raises the question of public housing supply having to meet the challenging goals. This has to do with ensuring the supply of new flats for first time owners and low-income families without creating an oversupply which hurts public housing resale market and affect particularly the elderly who will have to depend on the apartment resale amount for their retirement years when they downsize their apartments.

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52 See Haila (2016: 72-78) for a systematic treatment of modern land reform in Singapore.

53 Fraser (1952: 13) had earlier noted how although the Singapore Improvement Trust had the legal power to condemn buildings unfit for human habitation with compensation payment, the right of owners to contest the matter resulted not just in delays but also in   the Privy Council ruling in favour of the owner.   The HDB (1975: 40-42) provides an account of the successive amendments to the 1920 Land Acquisition Ordinance which made it easier for the government to acquire land. Commenting on the clearance of Singapore's squatter areas, resettlement of squatters, and the redevelopment of the city, the HDB (1975: 41) noted that "compulsory acquisition of land, undoubtedly, is the most efficient and effective way of obtaining land for public development, considering that most of the buildings on land in the Central Area were old, dilapidated, rent-controlled and under fragmented ownerships...compulsory land acquisition through the Land Acquisition Act and established resettlement policies also enabled large areas of squatter land to be cleared and the squatters rehoused in low-cost flats. Land acquisition has thus enabled a large portion of the squatter population to enjoy much better housing standards in comprehensively developed estates and new towns"

87% in 1990 **86% in 1995**	**1990s** By the 1990s, the public housing stock which was built in the 1960s and 1970s will have been around 20 to 30 years old. Singapore in the 1990s had already achieved successful economic growth and housing aspirations were different. The Main Upgrading Programme which started in 1990 was a policy initiative introduced to upgrade older public housing flats (e.g. toilets), blocks (e.g. lifts and letter boxes) and the precincts (e.g. covered walkways, drop-off porches, landscaped areas, etc.) (see Chapter 5). The upgrading of apartments is tied to flexible loans to help older and poorer residents pay for the upgrading (Straits Times, 14 September 1993).
86% in 2000 **83% in 2005**	**2000-2009** At over 80% of Singapore households being in public housing, the housing needs question has been settled and the attention is on quality. The Main Upgrading Programme was replaced by the Home Improvement Programme and the Neighbourhood Renewal Programme in 2007 in response to calls for greater flexibility in the provision of improvements and more consultation with residents. Concerns about the number of new citizens in Singapore gives raise to the Immigration and Naturalization Champions programme in 2007 to help new citizens adjust and integrate in HDB estates.
82% in 2010 **82% in 2016**	**2010 to 2016** The density and increased heterogeneity of public housing estates have a potential for neighbourly disputes over common spaces, noise, litter and smells. Community Dispute Resolution Tribunals were introduced in 2015 to handle mandated mediation if the community grassroot leader and the community mediation center are unable to resolve neighbourly disputes informally. Efforts to allow families to stay together have been in existence since the 1982 Multi-tier family housing scheme. With the elderly population growing in Singapore, concerns about the care and welfare of aging residents have led to a number of new initiatives. The Multi-Generation Priority Scheme introduced in 2012 enable married children and the parents to get new flats in the same precinct. 3Gen Flats offered in 2013 represent a new effort at designing for the needs of multi-generation families who want to live together for mutual care and support (MND 2013). The Proximity Housing Grant scheme in 2015 help Singaporeans buy a resale HDB flat with or near their parents or married child (MND and HDB 2015).

The Singapore model of public housing is unique among countries with public housing systems in terms of the proportion of residents residing in public housing and in terms of its focus on home ownership of public housing flats. Chart 1 shows the rapid growth in Singapore's public housing system. In 1960, when the HDB took over from the SIT, 9.1% of Singaporeans lived in public housing. Within thirty years, this figure has increased to 87% in 1990. This accomplishment allows us to answer three important questions about housing and society.

1. How Can Public Housing Be Part of the Social Welfare Infrastructure?

This is one of the most basic issues for many societies to consider, that of helping the poorest segments of society in a concrete and sustainable way. One of the problems of the urban poor has been that of ensuring stable housing arrangements. The first generation of public housing flats in the 1960s was focused on housing provision for the neediest of housing classes. These were built at low cost and the rents were subsidized. The rental subsidy has been maintained in subsequent decades (see Table 1, Chapter 2). The development of family service centers and senior activity centers within HDB blocks bring services to the doorsteps of those who need them most (see Table 8, Chapter 4).

2. Can Public Housing Create an Undivided, Inclusive and Cohesive Society?

This question can only be answered when the public housing system has grown to a level where it houses a significant proportion of the local population. Thus, in 1975 when 47% of Singapore households living in public housing, policies which are enacted within the public housing system has the ability to impact a significant share of Singapore society, certainly the urban poor, working class and low middle-class segments.

The public housing system allows the government to create ethnic residential mixing at the level of allocation of new flats by ensuring different ethnic households live together. The ethnic mixing allocation policy also backed up by the practice of establishing ethnic quotas in resale flats that prevent ethnic enclaves from forming (see Chapter 3). The strategy of ensuring apartments of different sizes to be co-located within the same estate enables social mixing across class lines. At the grassroots, community clubs and resident committees work to promote neighbouring and social mixing (see Table 8, Chapter 4).

Singapore as a global city and city state is highly diverse and has grown in diversity with new immigrants taking citizenship as immigration is seen as a way of coping with an aging population. A new grassroots network is working at the local level to ensure the integration of new migrants and at the same time is open to allowing a multicultural approach by allowing new migrants to practise their culture.

And as Singapore becomes an aging society, developing new ways of having the elderly stay with or close to their married children within the public housing system becomes a way of keeping the family and inter-generational ties intact.

3. Can Public Housing Keep Pace with the Changing Aspirations of Society?

This is a question about how the public housing system can keep pace with the changing needs and lifestyles of Singaporeans. The Singapore Improvement Trust formed in 1927 managed urban improvements and gradually assumed housing construction and by 1960 when it handled the housing provision role to the Housing and Development Board, 9.1% of the households in Singapore lived in SIT rental flats. The focus of urban and housing policies was on managing the problem of a highly congested and unsanitary inner city residential environment and on providing low cost affordable housing (see Chapter 1). As the scale of urban poverty declined through decades of economic growth in the 1970s, 1980s and 1990s, the shift changed to the home ownership scheme, neighbourhood and town planning of amenities and facilities. In more recent years, the neighbourhood renewal and home improvement programmes represent ongoing efforts to upgrade the older housing estates and keep the public housing system in line with the changing aspirations of Singaporeans (see Chapter 5). The shift to focus on home ownership has also meant an emphasis on improving building and apartment designs, well amenitied neighbourhoods and town centers which combine educational, recreational, shopping and sports facilities linked by good public transport.

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