

NEIGHBOURHOOD CENTRES: MEETING EVOLVING NEEDS THROUGH HEARTLAND RETAIL

Neighbourhood Centres (NCs) embody the integrated planning strategies and management of local retail to promote self-sufficiency in neighbourhoods in Singapore. NCs play a key role in supporting the growth of residential townships, and the decentralisation of commercial, residential and other functions from the city centre to other parts of the country. Over the years, the development of NCs has responded to various trends, and going forward they remain well-placed to provide for residents and to effect improvements in quality of life in Singapore's residential towns and neighbourhoods.

This Urban Systems Study documents the nuanced evolution of NCs over the years and highlights the plans and policies that have shaped their development over time.

"During this pandemic, many of us have come to rediscover the sights and sounds of our HDB [Housing & Development Board] towns. We have come to appreciate the convenience that our heartlands have to offer, including the many shops, stalls, and supermarkets where we can buy our sundries, and the hawker centres and coffee shops where food is just a stone's throw away.

Most importantly, our heartlands are where the Kampung Spirit continues to live on. The amenities in our HDB towns provide more than just goods and services. They are also nodes for residents to catch up with old friends and make new ones. When residents visit these shops and the markets, there is often a comforting sense of familiarity with the stall-owners and shopkeepers."

Heng Swee Keat, Deputy Prime Minister (2019–2025)¹



URBAN SYSTEMS STUDIES

NEIGHBOURHOOD CENTRES: MEETING EVOLVING NEEDS THROUGH HEARTLAND RETAIL



NEIGHBOURHOOD CENTRES: MEETING EVOLVING NEEDS THROUGH HEARTLAND RETAIL

Urban Systems Studies Books

Water: From Scarce Resource to National Asset

Transport: Overcoming Constraints, Sustaining Mobility

Industrial Infrastructure: Growing in Tandem with the Economy

Sustainable Environment: Balancing Growth with the Environment

Housing: Turning Squatters into Stakeholders

Biodiversity: Nature Conservation in the Greening of Singapore

Financing a City: Developing Foundations for Sustainable Growth

Land Acquisition and Resettlement: Securing Resources for Development

Built by Singapore: From Slums to a Sustainable Built Environment

Planning for Tourism: Creating a Vibrant Singapore

Cleaning a Nation: Cultivating a Healthy Living Environment

Urban Redevelopment: From Urban Squalor to Global City

Port and the City: Balancing Growth and Liveability

The Active, Beautiful, Clean Waters Programme: Water as an Environmental Asset

Working with Markets: Harnessing Market Forces and Private Sector for Development

A City of Culture: Planning for the Arts

Sino-Singapore Guangzhou Knowledge City: A New Paradigm in Collaboration

Land Framework of Singapore: Building a Sound Land Administration and Management System

Integrating Land Use & Mobility: Supporting Sustainable Growth

Engaging Well, Forging Bonds: The Community as Stakeholders in Urban Development

Food and The City: Overcoming Challenges for Food Security

Technology and the City: Foundation for a Smart Nation

Energising Singapore: Balancing Liveability and Growth

one-north: Fostering Research, Innovation and Entrepreneurship

Past, Present and Future: Conserving the Nation's Built Heritage

The Rule of Law and Urban Development

Planning for a Secure City

Integrating the Planning of Airports and the City: The Singapore Story

Resettling Communities: Creating Space for Nation-Building

Water: From Scarce Resource to National Asset (2nd edition)

Religious Harmony in Singapore: Spaces, Practices and Communities

Enhancing Liveability, Fostering Communities: Estate Management for Singapore's Public Housing

Towards Ageing Well: Planning a Future-Ready Singapore

Preparing for a Climate Resilient Singapore

The Government Land Sales Programme: Turning Plans into Reality

Transport: Overcoming Constraints, Sustaining Mobility (2nd edition)

Punggol: From Farmland to Smart Eco-Town

Jurong Island: Creating a World-Class Energy and Chemicals Hub

Planning a City for Health and Well-Being

For product information, visit



URBAN SYSTEMS
STUDIES SERIES

www.clc.gov.sg/research-publications/publications/urban-systems-studies



CLC PUBLICATIONS

<https://www.clc.gov.sg/research-publications/publications/books>



NEIGHBOURHOOD CENTRES: MEETING EVOLVING NEEDS THROUGH HEARTLAND RETAIL

CENTRE for
LiveableCities
SINGAPORE

Singapore, 2025

Editorial Team

Writers: Michelle Cheam
Victoria See

Research Supervisor: Limin Hee, Shawn Tan

Editor: Ada Davis

Design and Production: Redbean De Pte Ltd

© 2025 Centre for Liveable Cities (CLC), Singapore. All rights reserved.



CLC is a division of



Set up in 2008 by the Ministry of National Development and the then Ministry of the Environment and Water Resources, the Centre for Liveable Cities (CLC) has as its mission “to distil, create and share knowledge on liveable and sustainable cities”. The CLC’s work spans four main areas—Research, Capability Development, Knowledge Platforms, and Advisory. Through these activities, the CLC hopes to provide urban leaders and practitioners with the knowledge and support needed to make our cities better. For more information, please visit www.clc.gov.sg.

Research Advisors for the CLC’s Urban Systems Studies are experts who have generously provided their guidance and advice. However, they are not responsible for any remaining errors or omissions, which remain the responsibility of the author(s) and the CLC.

For enquiries, please contact:

CLC Publications
45 Maxwell Road #07-01
The URA Centre
Singapore 069118
T: +65 6645 9614
E: CLC-Publications@mnd.gov.sg

ISBN 978-981-94-3124-3 (printed)
ISBN 978-981-94-3123-6 (e-version)

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher.

Every effort has been made to trace all sources and copyright holders of news articles, figures and information in this book before publication. If any have been inadvertently overlooked, CLC will ensure that full credit is given at the earliest opportunity.

Printed on Enviro Wove, a paper made from 100% pre-consumer recycled pulp.

Cover photo:
Oasis Terrace
Photo @ Redbean De Pte Ltd

CONTENTS

List of Illustrations and Exhibits	vii
Foreword	ix
Preface	xi
Acknowledgements	xiii
Liveability Framework	xiv

OVERVIEW	1
-----------------	---

CHAPTER 1	
IMPLEMENTING NEW IDEAS	3
• Late 1950s-Early 1970s: Strategic Planning for Singapore	4
• 1960s-1980s: Town Planning and Development	10
▪ <i>Early Towns and Their Neighbourhood Centres</i>	12
• Late 1970s-1980s: Improving the Built Environment through Urban Planning and Design	18
▪ <i>Legacy of Other Neighbourhood Centre Building Typologies</i>	22
• 1990s: Planning for the 21st century	33
• Neighbourhood Centres in Private Estates	40

CHAPTER 2	
CATERING TO RETAIL NEEDS	41

• Resettlement of Shopkeepers	42
• Injecting Flexibility and Competition into the Retail Landscape	44
• Instituting Retail Provision and Retail Mix	47
• Managing Oversupply of Shops	53
▪ <i>Beneficiaries of the Revitalisation of Shops Scheme</i>	58

CHAPTER 3	
REFRESHING RETAIL ENVIRONMENTS	61
• Upgrading and Redevelopment	62
• Rejuvenation	64
CHAPTER 4	
RESPONDING TO CRITICAL NEEDS AND EMERGING TRENDS	67
• Importance of Neighbourhood Centres during the COVID-19 Pandemic	68
▪ <i>Understanding Perspectives on Heartland Retail: Findings from the Heartland Shops Study</i>	71
• Place Management and Sense of Community	74
• Social Enterprises	78
• Ageing Population	79
• Sustainability, Biophilia and Smart Nation	81
▪ <i>A New Generation Neighbourhood Centre: Oasis Terraces</i>	82
• Summary	88
Post-script	90
Timeline	92
Endnotes	98
Bibliography	106
Image Credits	113

LIST OF ILLUSTRATIONS AND EXHIBITS

1. Liveability Framework
2. Public housing built by the SIT in the mid-1940s: Five-storey blocks of flats at Tiong Bahru Road
3. The junction of Tiong Bahru Road and Kim Pong Road in the 1950s
4. Flautist Herbie Mann performing at Tiong Bahru's bird singing corner
5. Ring City Plan from 1963 © Urban Redevelopment Authority. All rights reserved
6. 1971 Concept Plan) © Urban Redevelopment Authority. All rights reserved
7. Tanglin Halt Neighbourhood Centre, and former Tah Chung Emporium and Golden Crown Restaurant in the Queenstown Town Centre in the late 1960s
8. Shopping centre and market stalls in Toa Payoh NC 4 in the late 1960s
9. Town plan for Bedok New Town
10. New Town Structural Model in the 1970s
11. Table comparing the key attributes of Town Centres, Neighbourhood Centres and Precinct Shops
12. Telok Blangah Masterplan and neighbourhood in the 1970s
13. Pedestrian mall at Yuhua Place
14. 2-storey shophouse typology of neighbourhood centres at Kallang Basin in the mid-1980s
15. Low precinct walls in Temple Estate in the late 1980s
16. Planning norms for proportion of shops distributed across town centres, NCs and precincts across time
17. Selling fruits at Ellenborough Market in the 1950s
18. Wet market and food centre at Clementi Avenue 3 in 2001
19. By day, some streets of Chinatown, like Smith Street and Trengganu Street, were wet markets, but when night came, they were transformed into a *pasar malam*, or night market, that attracted massive crowds, as shown here in 1985

FOREWORD

20. Old Kallang Airport Hawker Centre in 1983, which had replaced the previous wet market in 1971
21. Punggol 21 Plus launched in 2007
22. Punggol 21 Exhibition at Raffles City Central Atrium in 1996
23. Holland Road Market
24. Employment survey conducted by the HDB Statistics and Research Department in 1972
25. Engagement of residents at the Love Thy Neighbourhood project
26. Pop-up engagement with the public
27. Kampung Admiralty, an integrated community and housing development co-located with Admiralty Place
28. Oasis Terraces in Punggol
29. Oasis Terraces in Punggol
30. Schematic of Community Farmway at Tengah Town
31. Plantation District at Tengah Town
32. Plantation Plaza NC is located along the Plantation Farmway, a linear social-communal spine linking residents to key facilities and amenities in Tengah Town
33. View of the street along the future Bayshore estate
34. Artist's Impression of Bayshore estate as a car-lite area

In its nascent stages, Singapore's public housing programme was lauded for its speed, practical design, efficient provision of basic utilities, as well as planning ambitions and successes in providing self-sufficient towns. More recently, it has been recognised for its architecturally impressive designs, environmental sustainability, use of technology, and contemporary facilities that continue to push the definition of how liveable and sustainable public housing could look, even on a global stage.

In parallel, carefully crafted housing policies and efficient estate management operations have demonstrated that public housing is not solely about town planning and physical infrastructure but also encompasses continued efforts and innovations in daily operations, effective management and social policies. The roads to these successes have been documented by the Centre for Liveable Cities through past Urban System Studies and Urban Solutions publications.

Adding to that, this Urban Systems Study dives deeper into the concept of decentralisation and the role of neighbourhood centres (NCs) in supporting strategies for addressing rapid urban development in Singapore, in addition to providing convenience to residents and continual livelihood for small businesses affected by resettlement. As commonplace as the NCs may seem, they capture the various scales of urban planning and design, translate self-sufficiency to retail provision, and demonstrate employment as well as social, economic and retail considerations. With NCs becoming gathering places for residents to mingle, new NCs have been increasingly designed with community-centricity, healthy living and elderly-friendliness in mind. This acknowledges the responsibility of the Housing & Development Board (HDB) not just to residents and the general population, but also to HDB shopkeepers who are equally stakeholders in HDB towns.

Business models, facilities management and place management are some of the other working parts that give life to the planning ideas, urban design and architecture of NCs. I hope that you will glean new perspectives of Singapore's public housing programme through this read.

Cheong Koon Hean

Chair, Lee Kuan Yew Centre for Innovative Cities,
 Chair, Advisory Panel for the Centre for Liveable Cities,
 Professor of Practice, Singapore University of Technology and Design,
 and Chief Executive Officer, Housing & Development Board (2010–2020)

PREFACE

The Centre for Liveable Cities' (CLC's) research in urban systems unpacks the systemic components that make up the city of Singapore, capturing knowledge not only within each of these systems, but also the threads that link these systems and how they make sense as a whole. The studies are scoped to venture deep into the key domain areas that the CLC has identified under the Liveability Framework, attempting to answer two key questions: how Singapore has transformed itself into a highly liveable city over the last six decades, and how Singapore can build on our urban development experience to create knowledge and urban solutions for current and future challenges relevant to Singapore and other cities through applied research. *Neighbourhood Centres: Meeting Evolving Needs through Heartland Retail* is the latest publication in our Urban Systems Studies (USS) series.

The research process behind this publication involved close and rigorous engagement of our stakeholder agencies by the CLC's researchers, and oral history interviews with Singapore's urban pioneers and leaders to gain insights into development processes and distil tacit knowledge that has been gleaned from planning and implementation, as well as governance of Singapore. As a body of knowledge, the USS series—which covers aspects such as water, transport, housing, industrial infrastructure and sustainable environment—reveals not only the visible outcomes of Singapore's development, but also the importance of the other structures which support our urban achievements.

Neighbourhood centres (NCs) embody the integrated planning strategies and management of local retail to enable neighbourhoods to be more self-contained. NCs thus play a key role in supporting the growth of residential townships, and the decentralisation of commercial, residential and other functions from the historic city centre to other parts of the country. For this reason, the CLC has sought to include aspects of urban planning, urban design, architecture, retail policy and emerging trends to reflect the multiscalar and multidisciplinary considerations behind heartland retail in this USS.

The CLC would like to thank the Housing & Development Board and all those who have contributed their knowledge, expertise and time to make this publication possible. I wish you an enjoyable read.

Hugh Lim

Executive Director, Centre for Liveable Cities (2020–present)

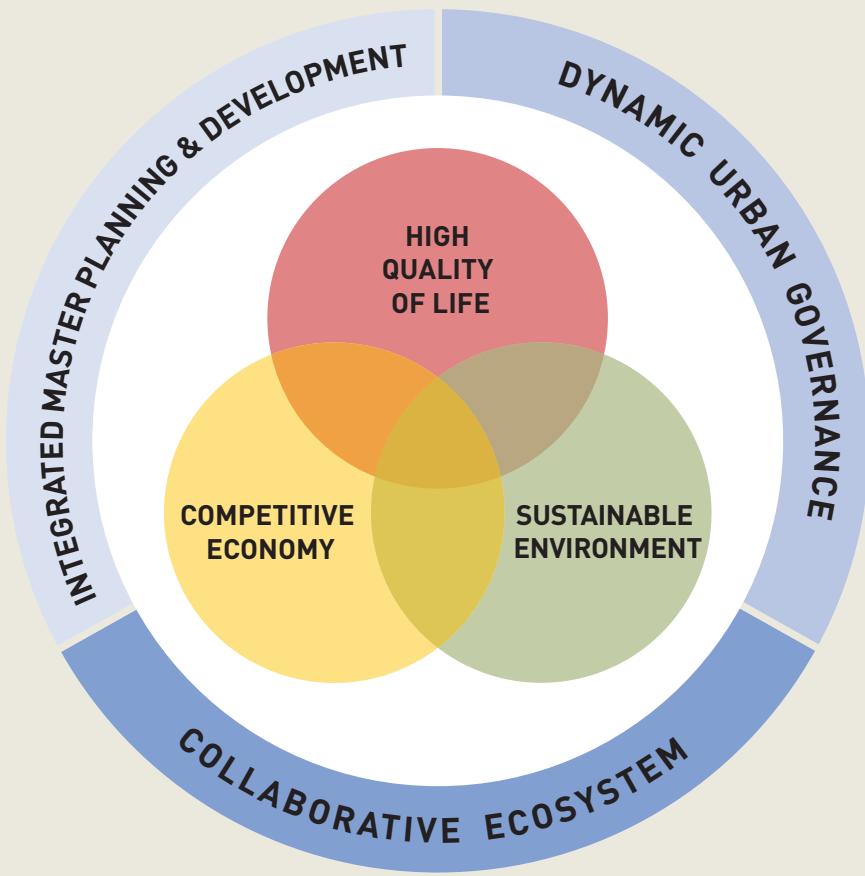
ACKNOWLEDGEMENTS

The Centre for Liveable Cities gratefully acknowledges the Housing & Development Board for their assistance in preparing this book.

The Centre also extends special thanks to the following interviewees (in alphabetical order) for sharing their insights and wealth of experience in heartland retail and public housing: Cheong Koon Hean, Fong Chun Wah, Kee Lay Cheng, Tan Poh Hong, Tay Kim Poh and Yap Chin Beng. The researchers, Michelle Cheam and Victoria See, would like to especially thank Yap Chin Beng for his dedication and guidance; Cheong Koon Hean and Tan Meng Dui for contributing the Foreword and Post-Script, respectively; and colleagues from the Urban Redevelopment Authority, Enterprise Singapore and National Environment Agency who provided input on this book. In addition, the following colleagues from the CLC and HDB provided invaluable help with the book—Chionh Chye Khye, Hugh Lim, Khoo Teng Chye, Michael Koh, Limin Hee, Shawn Tan, Ken Lee, Gladys Koh, Wong Si Min, Marcus Ng, David Ee, Andy Tan, Alison Lee and Ranga Chinnaraj.

LIVEABILITY FRAMEWORK

The Liveability Framework is derived from Singapore's urban development experience and is a useful guide for developing sustainable and liveable cities. The general principles under the three domains of Integrated Master Planning and Development, Dynamic Urban Governance, and Collaborative Ecosystem are reflected in the themes explored in this publication.



1. Liveability Framework²

Integrated Master Planning and Development

Execute Effectively

The neighbourhood concept and consequently the development of neighbourhood centres (NCs) stemmed from the desire to ensure that residential towns were self-contained. Motivated by the drive to cease perpetuating the dense and squalid conditions of the city centre that had emerged from pre-independence economic activity, this strategic vision has long been embedded into Singapore's planning goals since the 1971 Concept Plan. The translation of broad ideas into finer scales, such as the master plan, town plan and eventually to urban design, architecture and retail schemes, exemplifies the considerations taken at different scales and in various aspects of planning. In essence, NCs are the product of effective execution of the polycentric strategic planning concept. See page 10.

Build for Resilience

In 1987, after almost two decades of monthly tenancies with rent fixed at the point of letting for Housing & Development Board (HDB) shop tenants, the HDB began to institute fixed-term leases for its shop premises. Existing shop tenants were given the option of one- to three-year leases with only one month's prior notice required for termination. Rather than a mandatory term duration for the leases, these options gave shop tenants flexibility in deciding which term arrangements would be more suitable for themselves while providing them with security of tenure. This flexibility in lease arrangements proved especially valuable during the COVID-19 pandemic, when neighbourhood shops played a crucial role in ensuring community self-sufficiency through a sustainable provision of goods and services. The ability to maintain a diverse mix of essential businesses in NCs helped build community resilience, as residents relied heavily on these shops for daily necessities, healthcare services and basic amenities during the pandemic. The HDB's role as both landlord and public housing provider enabled it to implement supportive measures for shop tenants during this period, ensuring the continued operation of these daily services. See pages 44 and 68.

Innovate Systemically

NCs have undergone significant architectural transformation over the years. The present-day new generation NCs (NGNCs) typically boast an air-conditioned multi-storey shopping mall with a sheltered open-air public space, lush landscaping, and community fitness and play facilities. Considerations in smart technology for facilities management, biophilia and sustainability are additional layers of innovation. Needless to say, NCs have come a long way from low-rise, naturally ventilated rows of shophouses and wet markets to keeping up with changing lifestyle preferences and building typologies over time. Beyond architectural and urban design, retail policies and upgrading programmes acknowledge the changing demographic, inescapable ageing of infrastructure, and advancements in technology, so that NCs evolve with the socio-economic landscape over time. See pages 18, 79 and 81.

Dynamic Urban Governance

Engage and Partner with the Community

In the early years of resettlement, heartland shops served as units for resettled inhabitants alongside housing units. With shop units leased to shopkeepers of the resettled area, the HDB was able to tap on existing social bonds and patronage within the resettled community to preserve the sense of neighbourliness for its residents and business viability for its shop tenants. The shopkeepers were regarded as stakeholders, given their inherent relationships and skills to meet the retail needs and build up the sense of community within the new towns. In recent years, the HDB has been placing greater emphasis on community-centricity, communal spaces, and placemaking by designing new NCs and upgrading existing NCs to maintain their role as gathering places for residents. See pages 62 and 64.

Work with Markets

In 1989, the HDB allowed the private sector to step in to develop and manage shopping malls in town centres, which was followed by similar privately developed NCs in select neighbourhoods. This was done in recognition that the expertise of private developers in developing and managing commercial properties could be beneficial in enabling NCs to remain viable amid the shifting retail landscape. Through this, the HDB refined their approaches, such as in the engagement of professional marketing agents to inform the curation of uses in NCs, demonstrating that learning points from private developers have been internalised and enhanced to better serve residents. See pages 47 and 53.

Collaborative Ecosystem

Collective Stewardship as a Foundation for Transformative Collaborations

Over the past decade, Singapore has been embracing place management concepts to cultivate a stronger sense of community within its public housing estates. For more recent NCs, the HDB encouraged resident-led initiatives through programmes such as the Love Thy Neighbour project, which empowered residents to organise community events, fostering grassroots engagement. The HDB also adopted co-creative processes for several NCs, such as the Remaking Our Heartland programme, where local communities come together to develop a design brief for their town centres before engaging local architects and architectural students through a placemaking challenge. This approach not only tailored amenities to local needs but also instilled a sense of ownership among residents. The HDB collaborated with key stakeholder entities, such as Heartland Enterprise Centre Singapore and local merchants' associations, to enhance placemaking for commercial areas in the heartlands. Collectively, these efforts aimed to enhance the vibrancy and cohesiveness of communities by empowering key stakeholders to have more stewardship in the NCs. See pages 64, 74 and 78.

OVERVIEW

Singapore's Housing & Development Board (HDB) towns have been recognised as the product of an exemplary town planning and public housing programme. The concept of nesting commercial and community provisions at various scales, as well as considered public housing policies, have certainly helped to make HDB towns convivial and liveable for residents. In addition to these characteristics, neighbourhoods and neighbourhood centres (NCs) have been crucial in supporting decentralisation, which has also been mirrored by economic and retail considerations to ensure viability for shop tenants and owners.

This Urban Systems Study (USS) unpacks the various considerations that have gone into the development of NCs to translate planning into reality. The first chapter covers how strategic planning, town planning and urban design principles have been foundational for the development of NCs. The next chapter dives into the retail considerations that have shaped the commercial provisions in NCs and the policies that were introduced to implement these ideas. In the earlier days, when Singapore was a young nation, NCs were leveraged to provide places for employment, build on existing social bonds among the resettled, and decongest the city. Land policies governing retail shops then worked towards addressing oversupply to ensure viability for shops, and for a period of time, even echoed the asset accumulation aspirations of locals that the HDB's housing policies were known to promote in the early days. Beyond meeting the daily needs of HDB residents, NCs have also become community nodes where residents meet and interact. The last two chapters provide insight into how NCs have continued to evolve over the years, through upgrading and rejuvenation programmes implemented in response to emerging trends of place management and the ageing population.

In tracing this narrative of NCs, this USS seeks to exemplify how the planning and implementation of NCs sought to maintain a fine balance between the needs of residents and the livelihoods of tenants and shop owners, thereby supporting Singapore's wider ranging goals of self-sufficiency and decentralisation. The detailed considerations that enabled NCs to become everyday localities in Singaporeans' collective HDB lived experience also demonstrates how planning agencies have strived to adapt in keeping with the times. This USS provides a timely snapshot of how NCs have served the residents in public housing estates, and how they must continue to evolve to meet future residents' needs.



CHAPTER 1

IMPLEMENTING NEW IDEAS

“

The typology of retail in HDB towns and Singapore has changed and will keep on evolving to meet emerging needs and changing lifestyles.

”

FONG CHUN WAH

Deputy Chief Executive Officer,
Housing & Development Board (2016–2021)

Late 1950s-Early 1970s: Strategic Planning for Singapore

The concept of neighbourhood centres (NCs) was formally introduced in Singapore post-independence. During that time, NCs were part of an overarching planning narrative for decentralisation, to mitigate rising concerns of congestion and overpopulation in the city centre areas. That said, the conceptual typology of NCs was not new; the idea of having a commercial node that supported residents' everyday needs within the neighbourhood existed prior to Singapore's independence, albeit in a less structured manner. Taking a closer look at Singapore's strategic plans provides the context for how NCs were formally conceived and developed over the years.

SIT 1958 Master Plan

The Singapore Improvement Trust (SIT) was established in 1927 by the British colonial government to address public health concerns through the improvement of infrastructure. Tasked with recording existing developments and developing or widening roads as laid out in the General Improvement Plan, a large part of the SIT's work involved identifying insanitary buildings for demolition, road improvement works and the construction of back lanes to improve access to natural light and ventilation.



2. Public housing built by the SIT in the mid-1940s:
Five-storey blocks of flats at Tiong Bahru Road



3. The junction of Tiong Bahru Road and Kim Pong Road in the 1950s

After an amendment to the Singapore Improvement Ordinance in 1930, the SIT was given the mandate to erect buildings for rehousing people who had been affected by the review of developments. These efforts started with houses and artisan quarters at Lorong Limau in 1932, before moving on to Singapore's first public housing estate in Tiong Bahru from 1936 to 1941, comprising 784 flats, 54 tenements and 33 shops.

The SIT estate in Tiong Bahru was planned with an outer ring of four-storey flats around a communal zone comprising a market, a hawker centre, coffee shops, a pet shop and a Chinese temple. A bird-singing corner situated close to this area, at the foot of Block 53, was also a popular gathering spot for locals at the time. This was perhaps a hint of the early aspirations and foundation for what NCs in public housing estates could be like—a combination of retail provisions and public spaces where people could interact and engage in leisurely activities with one another. In 2003, 20 blocks of the original Tiong Bahru estate were gazetted for conservation.³



4. Flautist Herbie Mann performing at Tiong Bahru's bird singing corner

After the Second World War, providing affordable public housing became an increasingly pressing issue due to a shortage of housing and a growing population. In response, the SIT built 20,907 dwelling and shop units, including in the Queenstown satellite town, between 1947 and 1959.⁴ At that same time, an amendment in the Singapore Improvement Ordinance in December 1951 permitted the SIT to carry out diagnostic surveys of Singapore for 2 years, which culminated in Singapore's 1958 master plan, its first since the Raffles Town Plan. Supported by studies on land use in various parts of the island, as well as provision of industrial land for employment and traffic, the 1958 Master Plan set out to regulate private and public development through the zoning of land uses in order to improve congestion and overcrowding in the central area, and to reserve land for future development and industries.

One of the solutions proposed in the master plan was to increase housing in the peripheral urban areas and establish new satellite towns in the rural areas of Woodlands, Bulim (present-day Jurong West) and Yio Chu Kang. These satellite towns set the tone for decentralisation of residential land uses and support for the growth of self-sufficient residential towns beyond the city centre. Specifically, these satellite towns were planned to be well-equipped with schools, recreational areas, shops, healthcare services and offices or industries for employment, thereby reducing the need for residents to travel into the city centre on a daily basis.⁵

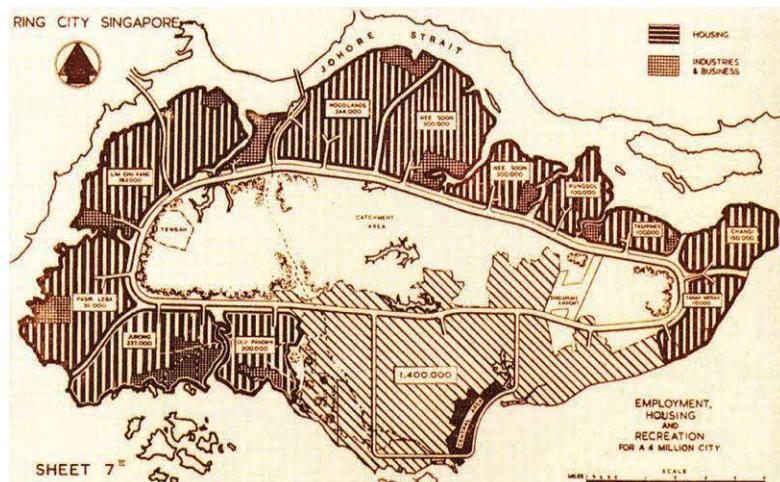
Establishment of the HDB

On 1 February 1960, following the SIT's dissolution in 1959, the Housing & Development Board (HDB) was established under the Housing and Development Ordinance, through which it was given the mandate to replace the SIT.

Under the ordinance, the HDB was accorded the responsibility of clearing slums and urban areas for redevelopment, constructing public housing, conducting resettlement for designated areas and managing its properties.⁶ This started a series of Five-Year Building Programmes that included both continuing the work left by the SIT and building new towns.

1971 Concept Plan

In 1962 and 1963, a team of experts from the United Nations Development Programme (UNDP), comprising Otto Koenigsberger, Charles Abrams and Susumu Kobe, visited Singapore to make recommendations for the development of the young nation. Notably, the team introduced the idea of a ring of satellite towns, each with some land set aside for industries and offices to address the need for employment away from the city centre. This in turn led to the formation of the State and City Planning Project in 1967 to address the main concerns of providing affordable housing and creating employment opportunities.⁷

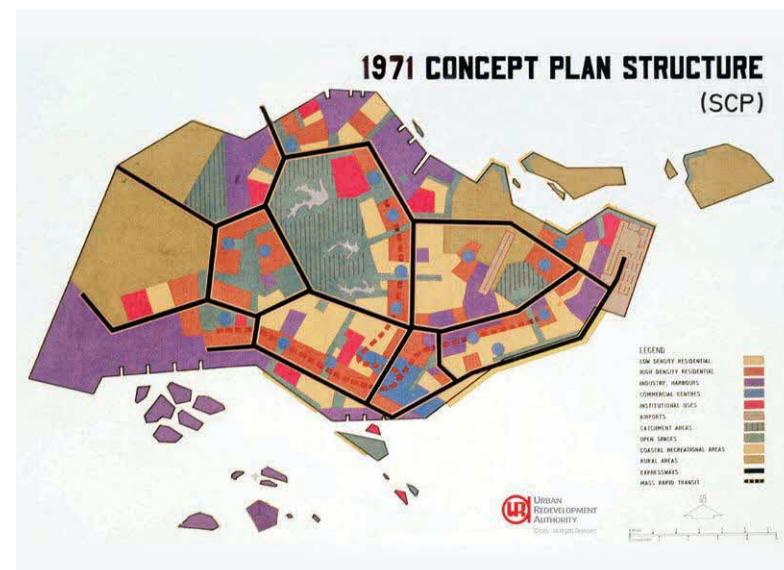


5. Ring City Plan from 1963 © Urban Redevelopment Authority. All rights reserved

Together with the UNDP consultants, the then State and City Planning Department of the Ministry of National Development (MND) further developed the ring concept, illustrating an urbanised centre in each residential town organised in a ring across the island, adjacent to industrial areas, and supported by public transport and expressways. With the residential towns roughly coinciding with the ongoing development of HDB new towns in Ang Mo Kio, Ayer Rajah, Clementi, Toa Payoh, Queenstown and Woodlands, this improved ring concept recognised the need for commercial centres in towns to be framed cohesively through strategic direction rather than disparate projects.⁸

Building on that, the 1971 Concept Plan released by the MND, with the assistance of the UNDP experts, envisioned the broad strategic planning principles for addressing the needs of Singapore as a young nation—housing, industries, commerce, greenery and transport infrastructure. The approach adopted in the 1971 Concept Plan sought to relieve the congestion and overcrowding in the city centre, where existing residential and commercial properties were in a poor state. This was reflected in the further breakdown of proportions of land use for each category and the spatial planning ideas for organising the country.

The provision of commercial centres and transects of open space within or beside these satellite towns, coupled with each town's adjacency to areas set aside for industries, demonstrates the intentions for the town to be a means to distribute residential, commercial, park and industrial land. Not least, the commercial centres were also connected through a web of expressways and Mass Rapid Transit (MRT) lines that intersected in the city centre to facilitate movement to and from the city centre.⁹



6. 1971 Concept Plan © Urban Redevelopment Authority. All rights reserved

1960s-1980s: Town Planning and Development

“Neighbourhood centres are part of a hierarchy of commercial areas in Singapore. It is very important to understand the distribution of commercial gross floor area from the concept plan level, managed by URA, to town planning level, managed by HDB.”

—Cheong Koon Hean, Chair, Advisory Panel for the Centre for Liveable Cities, and Chief Executive Officer, Housing & Development Board (2010-2020)

Early Forms of Neighbourhood Centres

Before the formation of the HDB, the SIT had already begun developing public housing—first through scattered residential developments, then estates of dwellings and shops, before embarking on the first satellite town, Queenstown, in 1953.

With only 3,000 of the units in Queenstown completed by 1959, the HDB continued the SIT's work for the area at an accelerated pace and completed another 14,000 units in the next 5 years. As it was, the SIT had envisioned the satellite town to be made of five residential neighbourhoods, each with its own communal amenities and town centre.

Recognising the value in providing sufficient communal spaces for residents, the HDB carried on this “neighbourhood concept” while intensifying the building density, to address complaints on the low density and imprudent use of land at that time. To optimise planning efficiency, the HDB also regularised communal amenities for each neighbourhood at a ratio of approximately one community centre, one market and shopping centre, and one health clinic for each neighbourhood.

Much like a microcosm of the strategic planning ideas, commercial centres within the satellite town echoed the spatially hierarchical nature of the 1971 Concept Plan. Town centres were centrally located to serve all residents of the town, while the locations of NCs were planned to provide greater conveniences for neighbourhood residents within walking distance. The HDB sought to differentiate between NCs and town centres by the density and type of retail offerings. Specifically for retail, NCs housed enough shops at a ratio of one shop for every 100 dwelling units and included key retail amenities such as markets, food centres and other key goods and services.^{10,11,12} In contrast, town centres were planned to accommodate other types of retail, such as department stores, supermarkets, upmarket restaurants, banks and a post office.¹³



7. Tanglin Halt Neighbourhood Centre (top),¹⁴ and former Tah Chung Emporium and Golden Crown Restaurant in the Queenstown Town Centre in the late 1960s (bottom)¹⁵

While the strategic plan was formally institutionalised only after the development plans for Queenstown were already in progress, the various milestones through the years of development suggest that the idea of a commercial centre within a residential town to encourage self-sufficiency had already been in the making.

Today, some of these early versions of NCs remain, such as the Commonwealth Crescent NC, albeit with alterations to the building style to remain relevant with the times.

EARLY TOWNS AND THEIR NEIGHBOURHOOD CENTRES

Toa Payoh, the First Comprehensively Planned Town

As the first comprehensively planned town initiated, designed and constructed by the HDB, Toa Payoh exemplifies the HDB's vision for a town in the 1960s.



8. Shopping centre and market stalls in Toa Payoh NC 4 in the late 1960s¹⁶

With the belief that public housing should be more than just flats for residents to occupy, the HDB planned the Toa Payoh town to be a series of self-contained communities where daily needs were well within walking distance from each home. Healthcare, retail, leisure and places for social bonding were planned into the town by means of clinics, commercial centres, recreational and sports facilities, and community centres.¹⁷

The planning of Toa Payoh town embodied the “neighbourhood concept”, with the 0.16-km² town centre encircled by a ring road, and 4 neighbourhoods connected to the town centre to facilitate accessibility. The planning team also took the chance to introduce a baseline provision of a shopping centre in each neighbourhood, as well as theatres, clinics, a library, banks, a post office, a police station, a community centre, a bus interchange and a HDB Area Office in the town centre. The Toa Payoh Town Centre plan adopted an L-shaped spine with vertices marked by 25-storey point blocks and special amenities.

Unlike the town centre, the NCs were smaller in scale and reflected the ideas of the pedestrian mall. Pedestrian walkways in the residential areas were flanked on both sides by a single-storey market and cooked food stalls, arranged in a parallel fashion, thus creating a ground-floor shopping experience akin to that found at the pedestrian mall intentionally designed in the town centre.¹⁸ In terms of situating NCs, the HDB took into consideration the possibility of residents visiting other NCs by virtue of adjacency to their homes. The neighbourhood, while more regulated than before as a planning parameter, was still embraced as a fluid concept for the residents.

Bedok Town

Construction of Bedok New Town began during the Third Five-Year Building Programme, after Queenstown and Toa Payoh New Towns were largely complete. Learning from past experience, Bedok's town planning reflected the clarity and refinement of ideas from the preceding towns. Similar to Toa Payoh, it shares the same structure of being organised around a town centre, which at that time had been planned to comprise shopping malls, markets and hawker centres, a bus terminal, a library, cinemas, a supermarket, banks, offices, a department store, showrooms and a polyclinic.¹⁹



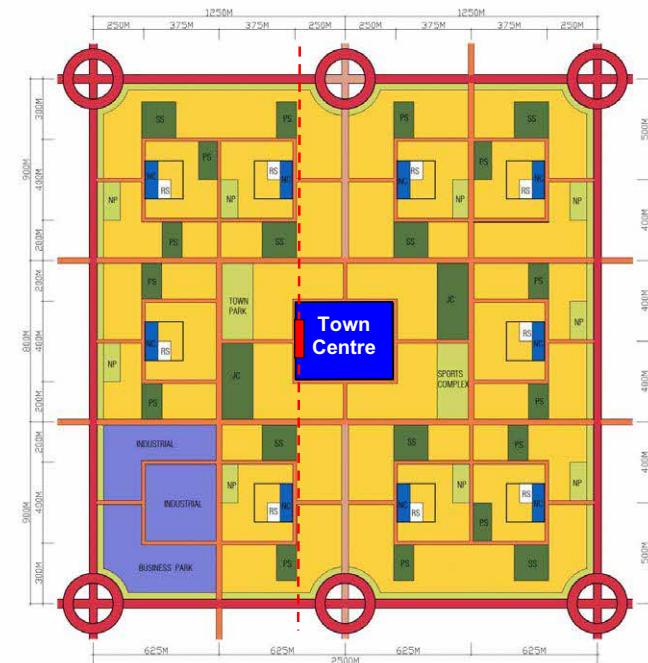
9. Town plan for Bedok New Town

The NCs in Bedok New Town were located within walking distance from its town centre and situated along pedestrian paths emerging from the perimeters of the town centre. These include formal walkways that encircle the urban block of the town centre, and informal intra-precinct paths that facilitate movement between the buildings. This eased accessibility between the town centre and NCs and imbued the sense that heartland shops and amenities are never too far to meet residents' needs. As Bedok expanded over time and the number of precincts increased, additional NCs were provided in tandem to serve the surrounding residents.

Formalising Ideas Through the New Town Structural Model

To serve as a guide for the planning of new towns, the HDB formalised their planning ideas into the New Town Structural Model. In this model, the core conceptual ideas that had been improved on and implemented in Ang Mo Kio, Bedok and Clementi were rationalised through measurable distances between commercial and civic provisions.²⁰

Based on the “neighbourhood concept”, the model illustrates how a town is sub-divided into several neighbourhoods and located around the town centre. Each neighbourhood would have its own set of amenities such as a neighbourhood park, NC and schools. These lower-rise land uses are also arranged in a checkerboard pattern to ensure areas of spatial and visual relief amid the high-rise housing blocks. The NC is centrally located such that it would be within walking distance of about 400 m from the residential areas. It is also situated next to primary access roads or local roads, both for commercial frontage/visibility and accessibility.²¹

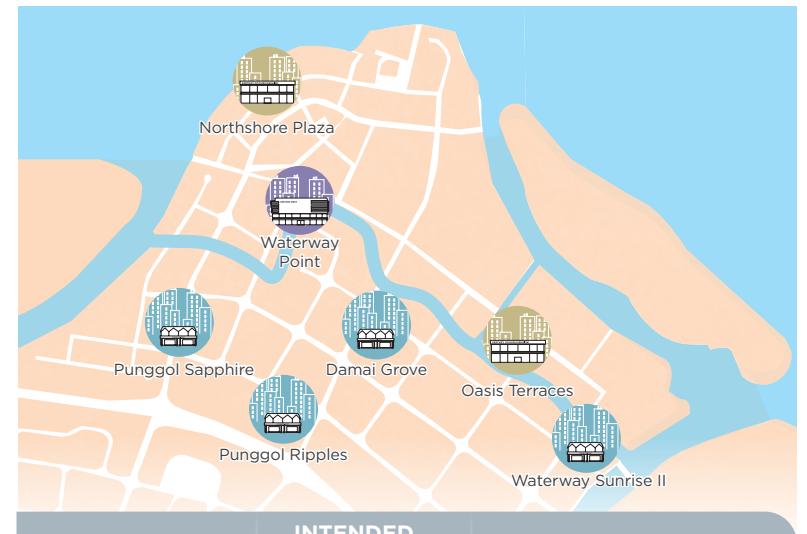


This hierarchy and distribution of retail thus ensured that the daily necessities available in NCs were conveniently located and accessible for the housing blocks, compared to the more upmarket provisions or specialised services available at the town centre. Industrial areas and business parks were to be consolidated at the fringes of the town.

The town structure and NC typology established during this time became the prototype replicated for subsequent new towns in the 1980s, including Bishan, Yishun and Bukit Batok.²²

Aside from addressing the physical distances, the NCs ensured that early residents in a new town were sufficiently provided for, at the very least in terms of the daily necessities. This was especially crucial since a town centre required careful spatial planning, a critical mass of residents to support its business viability, and construction in phases due to its scale. As a result, it could take more than 10 years for the town centre to be completed in its entirety.

For example, the earliest residents of Yishun started moving into the new town from 1980 but still did not have a town centre by 1989, due in part to the bankruptcy of the contractor in 1987.²³ Early-mover residents had to contend with the situation, as such unforeseen delays and circumstances were the realities of the construction sector in those days. Understandably, the lack of a town centre was met with complaints from residents who had to travel to the next town centre in Ang Mo Kio if they wanted to visit the supermarket, restaurants, library or cinema. Some residents adapted to the situation by relying entirely on NCs for their daily provisions, or on amenities located closer to their places of work in other areas of the island.²⁴



	EXAMPLES	INTENDED FUNCTION	TRADE MIX
Town Centres	Waterway Point (GFA: 52,000 m ²)	Commercial hub featuring the widest trade mix in a town, providing residents with a one-stop shopping destination	Hypermarket/supermarket; food court, restaurant, café, fast food outlet; jewellery, sportswear, fashion clothing, furniture, music, audiovisual shops; arcade; gym
Neighbourhood Centres (NCs)	Northshore Plaza (GFA: 19,500 m ²) Oasis Terraces (GFA: 27,400 m ²)	Concentration of a variety of shops to cater to daily shopping needs of residents in each neighbourhood	Supermarket; food court, restaurant, café, fast food outlet; hair/beauty salon; mobile phone, eyewear, fashion clothing, electronics shops
Precinct Shops	Damai Grove: 1 eating house, 1 supermarket, 4 shops Waterway Sunrise II: 1 eating house, 1 supermarket, 4 shops, 4 restaurants Punggol Ripples: 1 shop, 1 minimart Punggol Sapphire: 1 eating house, 1 minimart	Strategically positioned within selected precincts to provide doorstep access to essential amenities for immediate and surrounding areas	Supermarket, minimart; coffeeshop, bakery, takeaway food outlets; household goods store; laundromat

11. Table comparing the key attributes of Town Centres, Neighbourhood Centres and Precinct Shops

Late 1970s-1980s: Improving the Built Environment through Urban Planning and Design

Human-Scale Development and Emphasis on Identity for HDB Towns

Under the Third Five-Year Building Programme, the master plan at that point in time was characterised by a substantial increase in green space and the preservation of distinct natural features for all new towns.

An example of this is the Telok Blangah new town, which was later amalgamated with other estates in the 1980s to form present-day Bukit Merah Town. Given its proximity to Mount Faber and the undulating terrain within the boundaries of the new town, the plan for the area allowed for the creation of unique open spaces. Unlike the new towns before it, a much smaller portion of land—only 0.97 km² of the total 3.64 km²—was set aside for public housing, including NCs. The remaining land, except for land occupied for port-related uses and pockets of privately owned land, was planned as a parkland with the possibility for tourist development projects at certain locations along the ridge of Mount Faber.²⁵ The NCs in selected neighbourhoods were also designed to interface with the pre-existing greenery at Mount Faber to lend a more natural softscape to the surroundings and create a distinct identity for the Telok Blangah new town.

Over time, the emphasis on natural elements and human-scaled developments expanded through the rigorous incorporation of urban design, as a necessary consideration, during the planning phases of new towns. Building upon the success of preserving natural features at Telok Blangah, the grid-like street layout typically associated with town planning was adjusted to accommodate the terrain and pre-existing waterbodies. In the refreshed town layout, key streets were oriented towards the town centre and prioritised through a more formal and orderly streetscape. This strategy was complemented by the orientation of low-rise blocks in the town centre and NCs to form pedestrian malls pointing towards notable landmarks.



12. Telok Blangah Masterplan (top) and neighbourhood in the 1970s (bottom)



13. Pedestrian mall at Yuhua Place

For instance, in the case of Jurong East new town, low-rise blocks within the NC known today as Yuhua Place were oriented in a north-south direction towards the pagoda in the Chinese Garden. This was intended to direct sightlines in high traffic areas to the iconic structure in order to build a sense of identity for the new town.²⁶

At a neighbourhood level, there was an added emphasis on pedestrian networks to encourage walking. These networks facilitated movement between open spaces and activity nodes within the neighbourhood, such as schools, places of worship, community clubs and other communal facilities, and were coupled with efforts to give individual identities to new towns through building colour and architectural motifs.²⁷



Chiefly, town centres and NCs were designed to be recognisable landmarks for the surrounding residents. The result was a strong reliance on architectural features and curated landscaping to visually differentiate commercial centres from the rest of the residential blocks in the town and neighbourhoods. For example, the Nanyang NC, located at Blocks 959–966 Jurong West Street 92, is marked by earth-toned pitched roofs, sky-blue painted walls and palms to create a tropical atmosphere.²⁸

LEGACY OF OTHER NEIGHBOURHOOD CENTRE BUILDING TYPOLOGIES

While 3- to 4-storey blocks with shops on the ground floor and flats above was the most prevalent NC building typology replicated throughout HDB towns in the 1970s and 1980s, there were other alternatives that demonstrated different considerations and ideas in the development of NCs.

One example would be the two-storey shophouse with staircases within the unit, akin to the vernacular shophouse typology that has since been conserved in Chinatown, Kampong Gelam and Little India. Perhaps in line with the desire to foster a sense of identity in public housing during this period, this building typology incorporated sloping roofs, staircases along the five-foot way, and shops paired with living quarters to give a regional character to the neighbourhood.



14. 2-storey shophouse typology of neighbourhood centres at Kallang Basin in the mid-1980s

To accommodate a more modern lifestyle, the ground floor was kept column-free, while the upper-floor living quarters were free of partitions to enable modifications that would fit the tenant's living and ancillary business needs. Street furniture including wooden and stone benches were placed in front of shops, perhaps to encourage people to dwell in the space and recreate the lively activity that pre-war shophouses and five-foot ways had. Examples of these rare 2-storey shophouses can be found at Choa Chu Kang Neighbourhood One Centre, also known as Teck Whye Shopping Centre, where they were built in 1988 and remain today.²⁹

In the late 1970s, rural centres were also considered to cater to the housing and retail needs of agricultural families and resettlement cases. Each covering between 0.03 km² and 0.09 km², these rural centres were essentially small public housing estates built in close proximity to pig and poultry farms. They comprised a handful of low-rise walk-up apartment blocks and about a dozen shops, some of which had living quarters as well. Other amenities included a combined market and hawker centre to accommodate the resettled hawkers.³⁰

While the rural centre adopted a vastly different density from regular HDB towns with approximately 45 people per 4,000 m², the basic provision of housing, sundries and hawker food was consistent with the intention of ensuring some degree of self-sufficiency at a localised level, even in areas without immediate urban development.³¹ Via the Selective En bloc Redevelopment Scheme, all rural centres in Singapore have since been redeveloped.

Promoting Connectivity between Neighbourhood Centres

Up until the early 1970s, bus transport had been provided by the pioneering local bus company, Singapore Traction Company (STC), and three regional bus companies—Amalgamated Bus Company in the west, Associated Bus Services in the east and United Bus Company in the north. It was only after the STC discontinued operating in 1971 and the three regional companies merged to form Singapore Bus Services (SBS) in 1973 that bus transport could be more comprehensively planned for the country.

The nascent consolidated bus transport system spent its early years improving the quality of buses, services and management while the bus routes were kept to trunk services for inter-town commuting. The lack of sufficient bus coverage within HDB towns such as Jurong and Ang Mo Kio was met with dissatisfaction from commuters.³² For example, the then Telok Blangah town had only five services, which served specific neighbourhoods and rarely intersected. Three of the four neighbourhoods in the town had only one route, while the last neighbourhood was served by two routes.³³ As a result, commuters often had to make transfers between the services, which might have cost them a minimum of S\$0.20 per transfer trip.

In 1979, a task force comprising the Traffic Police, Registry of Vehicles, Public Works Department, HDB and SBS began rationalising bus services within residential towns. They studied the possibility for feeder buses to be introduced to improve intra-town connectivity and transit between major nodes. The intention was for feeder buses to run more frequently in part due to shorter routes, with a headway of about 3 to 5 minutes and at a flat rate of only S\$0.10 per trip.³⁴ This idea suggested improved connectivity between the town centre and NCs, between NCs, and perhaps most significantly from the fringes of the town.

Residents were thus able to travel within the town on these feeder buses at a lower cost than before. Even though the lower bus fare meant that the feeder buses might not have been able to cover their own operational costs, the SBS regarded it as more cost-effective than providing full trunk services at the desired frequency and on the finer bus routes within the town.³⁵ The idea was first tested in Telok Blangah town and was subsequently rolled out to other HDB towns, such as Ang Mo Kio, Queenstown, Bukit Batok and Yishun.

Around the same time, in the 1970s, the HDB began to incorporate pedestrian network considerations into their upstream planning phase. At a town scale, covered linkways were planned to connect NCs with recreational amenities within the town. Covered linkways were also added in NCs to supplement the five-foot ways in front of shophouses. The planning for a more comprehensive walking and cycling network was first implemented for neighbourhoods such as Clementi, Bedok and Ang Mo Kio, which were still in the planning stage when this urban design consideration was introduced.³⁶

Subsequently, in the mid-1980s, the HDB and the Mass Rapid Transit Corporation collaborated to create an MRT-bus integration plan. With the mandate to introduce the MRT system in Singapore, plans were made to retrofit existing bus interchanges with overhead bridges or underground malls to link to upcoming MRT stations within the town centres. As for new HDB towns, the intention was to consciously locate bus interchanges and MRT stations beside each other during the town planning stage. With the anticipated extensiveness of the MRT network, the possibility of reducing the number of trunk bus services and increasing the number of feeder bus services was also considered.³⁷

The HDB Precinct Concept

First introduced in the 1980s, the precinct concept further organised neighbourhoods into clusters of 600 to 800 dwelling units in the hope of creating a stronger physical and social identity through daily chance encounters between residents.³⁸

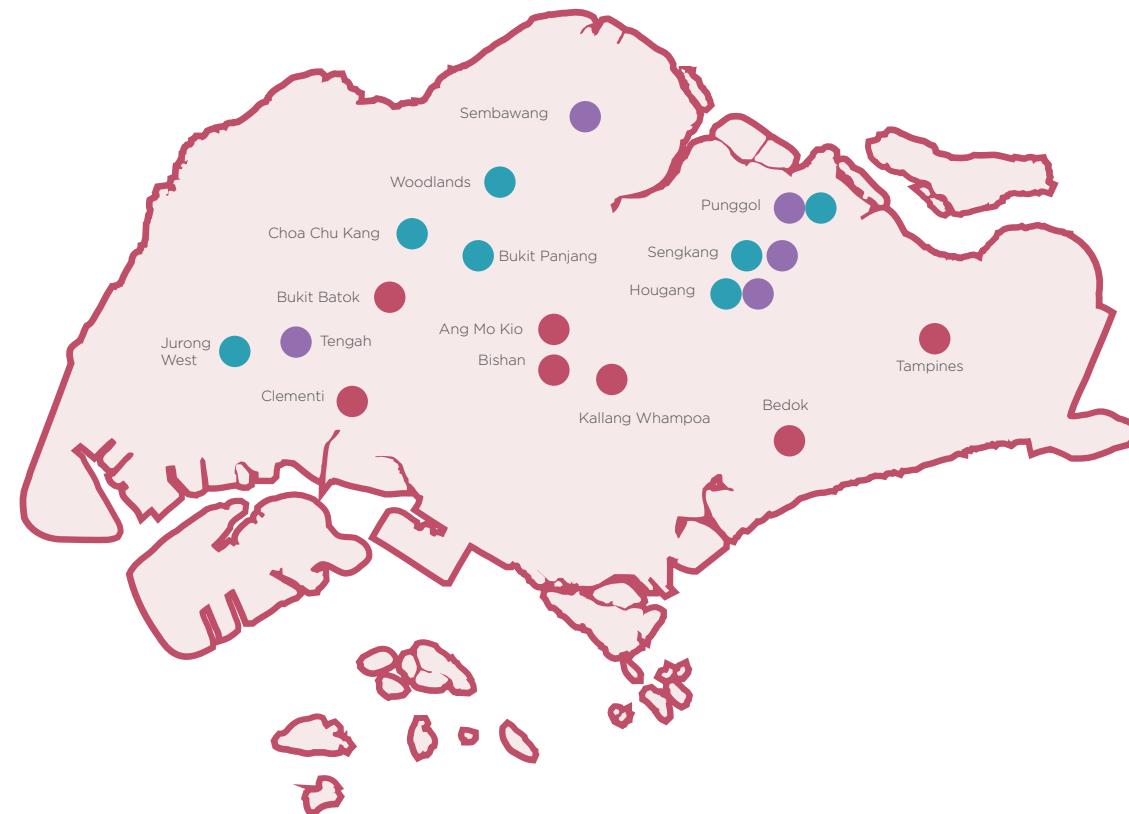
Initially, each precinct was to be enhanced by a centrally located communal space to serve as a focal point and an activity node for the precinct. Possible amenities located in these communal spaces included a children's playground, games courts and play areas. The scale of each precinct was later refined to 400 to 800 dwelling units—with shops and services provided for residents at the precinct level, to meet their everyday needs.³⁹

Precinct shops typically took the form of void deck shops located beside other community services to provide convenience to residents within two or three blocks of their own flats.⁴⁰ Unlike town centres and NCs, which feature relatively consolidated developments, these void deck shops reduced the need for additional building blocks which may have impacted the desired scale of a precinct.⁴¹ Architecturally, the precinct scale supported a tighter sense of visual identity, typically through the use of colour. Low walls were used to demarcate the boundary between the precinct and adjacent outdoor spaces, effectively clustering several residential blocks within each precinct.⁴²

The precinct shops and minimarts provided by the HDB at selected precincts gradually replaced the role of convenience kiosks (which were much smaller, only about a third in size), and introduced another layer of commercial provision to support residents' retail needs. While residents could travel to their NCs for a wider variety of goods and services, they could also meet their essential needs more conveniently by visiting their nearby precinct shops.⁴³ In a way, the advent of precinct shops paved the way for NCs to consolidate other types of everyday services and amenities for residents.



15. Low precinct walls in Temple Estate in the late 1980s



	Before 1990s (Early Neighbourhood Centres)	1990s (Shopping Complexes)	From 2015 (New Generation Neighbourhood Centres)
LOCALITY	Ang Mo Kio Kallang Whampoa Bedok Tampines Bishan Bukit Batok Clementi	Bukit Panjang Hougang Woodlands Choa Chu Kang Jurong West Sengkang Punggol	Punggol Hougang Sembawang Sengkang Tengah
EXAMPLES	Blocks 352–354 Clementi Ave 2 / Clementi Ave 2 Food Centre NC (78 shops) Blocks 271–283 Bukit Batok East Ave 4 / Bukit Batok East NC (112 shops) Blocks 150–152A Bishan Street 11 / Bishan Neighbourhood Centre (East) (46 shops) Blocks 34–38 Crescent / Beo Crescent NC (30 shops)	Rivervale Plaza (81 shops) Greenridge Shopping Centre (37 shops) Gek Poh Shopping Centre (63 shops) Admiralty Place (73 shops)	Oasis Terraces (102 Shops) Northshore Plaza (53 shops) Canberra Plaza (51 Shops) Anchorage Village (49 shops)
TYPOLOGIES	Shops located at the ground level of low-rise blocks, with living quarters or offices and/or flats integrated above	2- to 3-storey shopping complexes; shops are consolidated in a stand-alone centre to provide one-stop shopping convenience and to help minimise trade dis-amenities to surrounding residents	One-stop centres offering a wide variety of retail amenities, typically integrated with a transport node for convenient access; new generation neighbourhood centres are also intended to function as social nodes for residents and are hence designed with ample community spaces such as play areas for children, sheltered community plazas for events and fitness corners

16. Planning norms for proportion of shops distributed across town centres, NCs and precincts across time

From Wet Markets to Fresh Produce Shops

Since the first HDB town was developed in the 1960s, the HDB was cognisant that wet markets were essential for the daily grocery needs of residents. Prior to Singapore's independence, findings from a Hawker Inquiry Report in 1951 spurred the development of markets in the earlier SIT estates, like Tiong Bahru and Kallang. As the HDB retained SIT's neighbourhood concept from Queenstown and extrapolated it to other town developments, it also made sure that each neighbourhood had one wet market.⁴⁴

The 1970s was a period of rapid growth for Singapore, which resulted in greater affluence and changing lifestyle habits of residents. Concurrently, a growing number of supermarkets and minimarts emerged, including NTUC Fairprice, Newmart and the Singapore Animal Husbandry Enterprise. With longer opening hours and a wide variety of products in one shop, these shops grew to be seen as alternatives to wet markets. It was an added bonus that their air-conditioned spaces provided a welcome respite from Singapore's heat and humidity.

In 1981, a report on markets in Singapore, done by the Ministry of Trade and Industry, revealed that wet market spaces were not fully utilised due to their short operating hours from 8:00 a.m. to noon. The findings also revealed that wet markets had grown into a labour-intensive system which relied on too many workers who could otherwise be redirected to more productive trades. Compared to the emerging supermarket models, wet markets were unable to benefit from economies of scale due to the small-scale business model adopted by stallholders.



17. Selling fruits at Ellenborough Market in the 1950s



18. Wet market and food centre at Clementi Avenue 3 in 2001

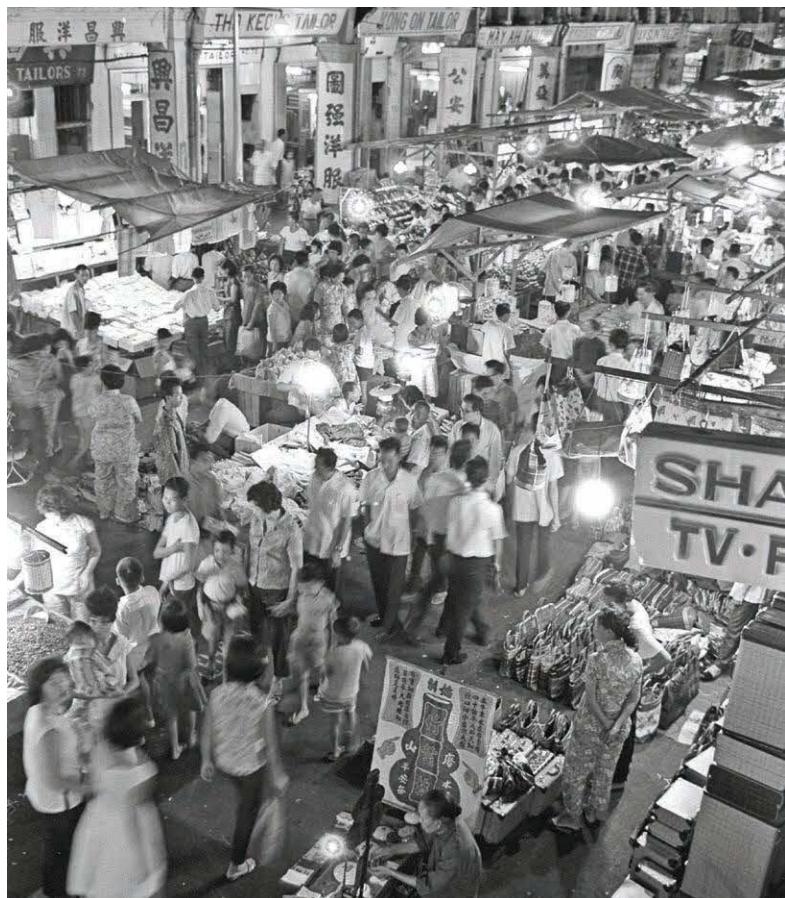
Consequently, an 11-member committee coordinated by the Ministry of the Environment (now known as the Ministry of Sustainability and the Environment) was set up to explore "markets of the future". The Head of the committee, then Senior Parliamentary Secretary (Environment), Mr Chor Yeok Eng, shared that the upward trend of dual-income households could mean that residents might have less time to shop at wet markets during the week. Among their recommendations, the committee suggested for wet markets to be replaced by supermarkets, specialty shops and neighbourhood stores.⁴⁵

In 1982, it was announced that the government would stop building wet markets and introduce dry markets in their stead—the first of which was built at Block 156 Bukit Batok Street 11, in the present-day Bukit Batok West Shopping Centre NC.⁴⁶ These dry markets would have longer operating hours, proper display counters, packaged food, cold stores to keep food fresh and, as their name suggested, dry floors. Instead of laying produce in the open for shoppers to peruse, dry market operators rented space for lock-up shops that sold both fresh produce and provisions like rice, sugar and canned food.⁴⁷

From Hawker Centres to Eating Houses

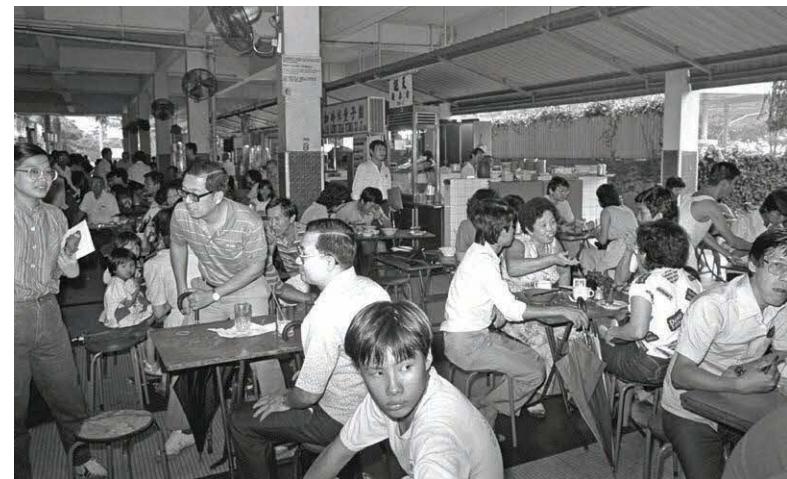
"We are trying to clear slums and move the people into new Housing Board flats; yet, on the other hand, when they get into the flats, they have no way of earning a livelihood but to resort to hawking. The problem is this: we are now creating a modern slum. So, unless the problem is resolved expeditiously, I think this undesirable state of affairs will continue to exist."⁴⁸

—Ng Yeo Chong, Member of Parliament
for Mountbatten (1963–1979)



19. By day, some streets of Chinatown, like Smith Street and Trengganu Street, were wet markets, but when night came, they were transformed into a *pasar malam*, or night market, that attracted massive crowds, as shown here in 1985.

In 1966, the Ministry of Health introduced the Hawkers' Code, under which, hawkers were issued licenses for their businesses and were prohibited from plying their trade along streets with high traffic volume. Hawkers were relocated to purpose-built hawker centres, back lanes or car parks. The first hawker centre, Block 50 Havelock Road Hawker Centre, was built in the same year, as an integrated housing block with a hawker centre for such a purpose.⁴⁹ It was officially opened by then Minister for Law and National Development E.W. Barker.⁵⁰ Prior to this, hawkers had the flexibility to move around and sell their foods in areas with high footfall or new estates, albeit in selected areas. This resulted in congestion and poor hygiene at that time, prompting the call to develop formalised spaces for the hawking of food.⁵¹



20. Old Kallang Airport Hawker Centre in 1983, which had replaced the previous wet market in 1971.

Despite the move to license hawkers and shift them to less congested areas, concerns of hygiene persisted. As such, the Hawker Centres Development Committee was established in 1971 to plan for the development of centres where hawkers would be formally located. The first generation of such "super" hawker centres included the Yung Sheng Road hawker centre in Jurong West (later redeveloped as Taman Jurong Market and Food Centre), and the Collyer Quay hawker centre in the downtown area. Under this plan, all licensed hawkers were cleared from the streets and relocated into permanent premises with nominal rents.⁵²

Unlike markets which allowed both fresh produce and cooked food stalls, hawker centres only allowed the sale and consumption of beverages and cooked food. The key design principles of the early hawker centres were:

- Seating arrangements that allowed for easy movement of patrons.
- Maximum use of lighting and free cross-ventilation.
- Insulation from the sun through the use of fans, and later, false ceilings.⁵³

In 1974, hawker centres were increasingly incorporated into residential and industrial estates through HDB and Jurong Town Corporation (JTC) developments. For HDB estates, the two-way benefits were clear—hawker centres could provide a variety of food options for residents while ensuring that hawkers had consistently high footfall due to the live-in population. Town planning agencies thus instituted one market and one hawker centre for each neighbourhood. With retail in neighbourhoods centred around the NCs, hawker centres and eating houses naturally became embedded into subsequent NC designs.⁵⁴

With most of the then hawkers resettled into hawker centres by the mid-1980s, the development of new hawker centres ceased at that time.⁵⁵ Nevertheless, given the increasing trend of people preferring to eat their meals at food and beverage establishments, especially as the government sought to encourage more women to enter the workforce, affordable food options were still crucial—particularly for new residential developments which might not benefit from existing hawker centres. Thereafter, eating houses were introduced in place of hawker centres in town planning.⁵⁶ These eating houses comprised no more than a handful of stalls to provide for sufficient variety while avoiding oversupply. See page 37.

1990s: Planning for the 21st century

Changes in the Retail Architectural Typology

Prior to the 1970s, the retail architectural typology in Singapore had typically been limited to wet markets, shophouses along roads and pedestrianised malls, standalone supermarket buildings and standalone department stores. It was only in the 1970s that shopping complexes were opened, and they introduced an entirely new shopping experience for customers. These air-conditioned and multi-storey buildings boasted an intensified retail mix within the same building and often featured atriums or fountains within the development. As a novel building typology, early critics questioned how these hyperactive shopping nodes would affect the local retail scene and if they might lead to a glut of commercial spaces. Nevertheless, they proliferated especially in the city centre. Examples of early shopping complexes include the Katong Shopping Centre, Golden Mile Shopping Complex, and Tanglin Shopping Centre.⁵⁷

Concurrently, the HDB began to introduce residential-cum-shopping complexes that featured three- to four-storey shopping podiums such as the Bras Basah Complex and Rochor Centre. These complexes were constructed to relocate many of the resettled shophouse retailers from the city centre near to residents who were relocated from the same area, building on familiar bonds. While these shopping podiums were understandably more modest in design with naturally ventilated corridors, they demonstrated a gradual shift in thinking of commercial provision by the HDB and in expectations of retail spaces by the public during that period.

Suburban Malls and Next Generation Neighbourhood Centres

It was against this backdrop of changes that dedicated shopping complexes for HDB estates were regarded as a natural and much needed next step to keep up with residents' expectations.⁵⁸ In 1988, the HDB announced that it would focus on building residential flats and relinquish some of its non-housing functions to the private sector. To start, the HDB tendered out four commercial sites in Yishun and Tampines Town Centres through the Sale of Sites programme in 1989, which led to the opening of the first suburban shopping mall, Yishun Northpoint Shopping Centre (present-day Northpoint City), and the first multiplex, Yishun 10, in 1992.

With private developers building and managing the entertainment and retail in town centres, the HDB was thereafter better positioned to provide basic facilities such as retail shops, markets and hawker centres in neighbourhoods and precincts, along with housing. From the 1990s, the HDB took charge to build next generation NCs which adopted the shopping complex typology, albeit at a smaller scale. This was done in response to evolving lifestyles and preferences of residents in favour of shelter and air-conditioned comfort. They also consolidated retail provisions, providing residents with a one-stop shopping experience and helping to contain trade dis-amenities.⁵⁹

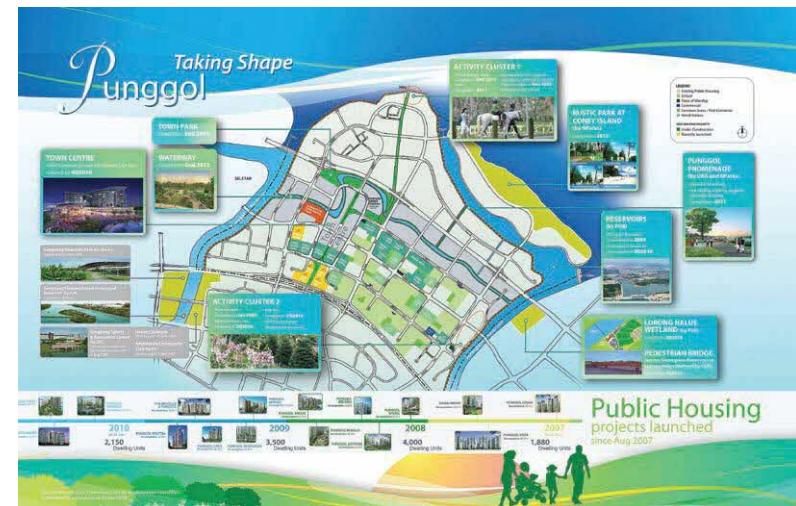
Notably, some of these next generation NCs also incorporated wet markets within their compounds, such as the wet market in Elias Mall, which became the first air-conditioned wet market in Singapore. Sheng Siong, who managed the unit, had been given approval to operate it on the basis that the unit would function as a wet market rather than a supermarket. A key characteristic was that the air-conditioned wet market continued to have individual stallholders who could have autonomy on the price they wished to set for their produce, rather than adopting singular price points that would be applied within a supermarket.⁶⁰ In line with technological advancements, some traditional business practices were modernised to improve efficiency for retailers and shoppers, such as the implementation of electronic payment and weighing scales, and colour coding of various sections.⁶¹

By 2017, a total of 21 such next generation NCs had been built, with the first in Choa Chu Kang. Besides Elias Mall, another notable example is Loyang Point. Some of the later next generation NCs, such as Tampines Mart and Eastpoint Mall, were also privately developed and managed.

While suburban malls were developed to keep up with shopping malls in popular shopping areas, it was not long before they began to pose as worthy competitors to downtown shopping areas such as Orchard Road. Recognised for bringing “Orchard Road-style shopping and entertainment” to residents’ doorsteps, these suburban malls sometimes incorporated a cineplex, bowling alley, family entertainment centre or library into its provisions, much like its downtown counterparts, albeit with a more affordable retail scene.⁶² As suburban malls grew in popularity with residents, almost on par with downtown shopping areas, the effect rippled downstream as the catchment of shoppers and footfall to NCs concomitantly increased.

Punggol 21 Model: Rethinking Retail and Rail

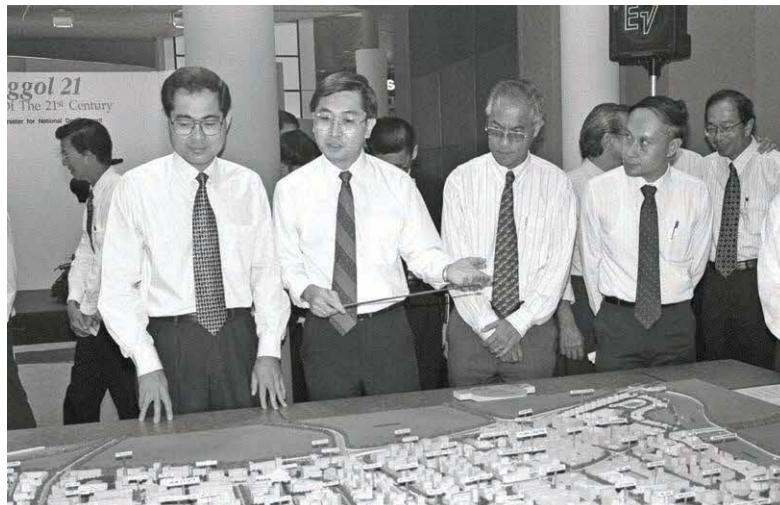
Before the turn of the century, the blueprint for Punggol 21 was unveiled, with the vision of developing Punggol 21 as “A Waterfront Town of the 21st Century”.⁶³ The aim was to develop a pioneer town of the new millennium, incorporating various new concepts and high-quality public housing, to meet the rising aspirations of Singaporeans.⁶⁴ One of the new planning concepts was the creation of smaller and more intimate estates to foster closer interaction among residents. Each estate comprises around 1,200 to 2,800 flats (as compared to past neighbourhood planning norms of 5,000 to 6,000 flats), clustering around its own “green lung”, in the form of a common green, for recreational use among residents. These smaller estates are approximately 350 to 400 m wide and can include a mix of public and private housing clustered around community facilities such as schools, places of worship and some shops. These lower-rise facilities provide spatial relief and convenience to residents.



21. Punggol 21 Plus launched in 2007

Transport connectivity was also comprehensively planned from the onset, with the North East Line passing through the town centre, as well as a Light Rapid Transit (LRT) system to serve as a feeder service to different parts of the town. Localised precinct shops were also provided at convenient locations near LRT stations and within housing precincts. This ensured that residents would be able to access different retail and food and beverage options conveniently.

In all, this meant that the retail hierarchy in Punggol had morphed into a structure of one town centre supported by several commercial centres built at strategic locations within the town. In addition to this provision, single-storey precinct shops were located at convenient locations, such as LRT stations, most of which would be within a walking distance of 400 m from residential blocks.⁶⁵ This concept was adopted in Sengkang and Sembawang, which were also being planned at that time, moving away from the traditional organisation of retail shops in HDB towns.



22. Punggol 21 Exhibition at Raffles City Central Atrium in 1996

Unfortunately, due to reasons such as the Asian Financial Crisis in 1997-1998 and the construction industry slump in 2003, the Punggol 21 model was not realised within the period of time that the HDB and URA had envisioned. It was not until 2007 that the plans for Punggol 21 Plus were put in place to reignite the vision for the town. These plans were implemented as part of the HDB's broader Remaking Our Heartland programme, which also aimed to build up critical mass within the town to support the development of other amenities. Over time, Waterway Point was developed as a town centre, and new generation neighbourhood centres (NGNCs) such as Oasis Terraces and Northshore Plaza were added to complement the existing commercial provision in the town.⁶⁶ These NGNCs helped to provide greater convenience to essential retail amenities for residents in estates further away from the town centre.

Revival of Wet Markets and Hawker Centres

"The desire by [Singaporeans] for wet markets is a rational want. What [they] want is not just food, but also the convenience and the freshness of wet market produce. There may be less costly ways of retailing food. But these may not be as attractive or as satisfactory to [Singaporeans]. Economic efficiency consists of satisfying rational wants in the least costly way, not of denying these wants."

—Hong Hai, Government Parliamentary Committee Chair,⁶⁷
Transport, Communications, and Health (1998-1991)

Perhaps the grass is not always greener on the other side, and a taste of alternative grocery and food and beverage models highlighted the beauty of wet markets and hawker centres. Following discussions in parliament about congestion and hygiene issues being similar problems at both wet and dry markets, a chain of public feedback revealed residents' sentiments in favour of wet markets. Some residents shared that they appreciated the bonds and trust fostered between shoppers and sellers that the informality of wet markets enabled, while others felt that the wet market prices and fresh produce were unrivalled.

In 1992, after an approximately decade-long hiatus from planning for wet markets, it was announced that a new style of market would be introduced. The new markets would be designed in a similar manner as wet markets, with distinct sections that would allow them to function efficiently as everyday grocery commercial spaces, but would be more hygienic and easily maintained through better drainage, wider aisles and larger markets stalls. These new markets would be mostly constructed by the HDB and co-located with retail and eating facilities in one building and situated at NCs. Early examples include Rivervale Plaza in Sengkang and Yew Tee Shopping Centre in Choa Chu Kang.⁶⁸ Although there have been no policy shifts for or against wet markets since then, the demand for and development of wet markets has waxed and waned.

Similar to wet markets, hawker centres have long been an integral part of Singapore's social fabric, serving as communal dining spaces where Singaporeans from all walks of life gather for affordable and delicious meals. The significance of these cultural institutions was further elevated when the government began building new hawker centres in 2011, after a hiatus of nearly 30 years. Many hawker stalls have received prestigious culinary accolades over the decades, and in 2020, Singapore's hawker culture achieved global recognition with its inscription onto UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.⁶⁹ A recent example of a contemporary hawker centre is the Bukit Panjang

Hawker Centre and Market located within walking distance of the Bukit Panjang NC at Blocks 256–260 Bangkit Road. Opened at the end of 2015, this hawker centre and market currently features 29 cooked food stalls, 8 market stalls and 14 lock-up stalls, and is the first of 20 new hawker centre and market amenities to be built by 2027.⁷⁰

Tapping on Private Sector Expertise

Since its establishment, the HDB had to exercise its mandate to provide for the retail, recreational and public transportation needs of those resettled into its new towns. This meant availability and quality of these services were often prioritised over economic viability for the HDB. In 1988, recognising that Singapore had moved beyond the critical period of urban redevelopment and resettlement, then Minister for National Development S. Dhanabalan announced that the HDB would optimise town development by focusing on the provision of public housing and relinquishing its non-housing roles.

The intention was for the HDB to encourage private developers to participate more in developing commercial projects in HDB new towns. At the same time, the HDB transferred ownership and/or management of non-housing functions to other statutory boards and agencies. This included industrial buildings and estates to the JTC, parks to the Parks and Recreation Department (predecessor of the National Parks Board), swimming and sports complexes to the Singapore Sports Council (now known as Sport Singapore), and bus interchanges to SBS and Trans Island Bus Services (present-day SMRT).⁷¹

The first call for tender for a shopping complex was made later that year in 1989.⁷² About three years later in November 1992, Singapore's first suburban mall, Yishun Northpoint Shopping Centre, was completed in Yishun Town Centre. Other HDB towns that were being developed in the same period, such as Tampines, quickly followed suit. With the private sector taking the lead in retail developments in town centres, the HDB continued to develop and provide for retail in NCs. Unlike the shophouse typology that had been prevalent in NCs at that time, the HDB adopted a new design that took a leaf from its private sector counterparts, building smaller consolidated shopping malls, albeit with naturally ventilated

atriums, such as Loyang Point and Elias Mall in Pasir Ris in the 1990s. As the private sector demonstrated their strength in shopping mall design and development as well as management of trade mixes, the HDB also began to release parcels of land in some NCs for the private sector to develop and manage.

By the 2000s, these efforts paid off. Armed with their experience in developing and managing commercial properties, these private developers successfully negotiated with more upmarket department stores and retail brands, which were otherwise only available in major shopping belts, to rent shop spaces in their suburban malls. Stores such as The Body Shop were some of the first well-known foreign brands to join the trade mix at Yishun Northpoint Shopping Centre, which eventually began to draw a sizeable number of shoppers.^{73,74}

Furthermore, the private sector demonstrated practical expertise at various scales in the design of buildings and shop frontages, as well as the layout of shops, to maximise visibility and attract roaming shoppers. Their familiarity with curating the experience for shoppers, also to the benefit of shopkeepers, demonstrated the effectiveness of tapping on the private sector's expertise in commercial developments.⁷⁵

That said, as profit-driven entities, private developers often demonstrated reluctance to develop parcels in new towns that had yet to accumulate a critical mass of residents. Realising that this would leave the first residents of new towns with only precinct shops to rely on for their everyday retail needs, the HDB again took on the role of first mover by developing select NCs of new neighbourhoods. With its core intention to be a social provider, the HDB therefore bore the risk of developing NCs before their success could be achieved by a strong resident community and potential customer base.⁷⁶ This has been the predominant strategy since 2013 when then Minister Khaw Boon Wan announced this new direction for the development of NCs by the HDB.⁷⁷

Neighbourhood Centres in Private Estates

While NCs have been formally adopted for HDB estates, and thus systematically planned for, retail shops located in private estates have also developed over time. These were either a legacy of Singapore's urban development or enabled through provisions in planning guidelines. For example, Holland Village has its roots in the colonial era when it was a military village with shops catering to the needs of British soldiers and their families, who were then based in Pasir Panjang and Alexandra. The area had been surrounded by agricultural land and cemeteries then, but eventually developed into a cluster of two-storey shophouses and wooden shacks with amenities such as pubs, curio shops and tailors to cater to the western expatriate community.⁷⁸

Over time, the construction of the Holland Road Market and Holland Road Shopping Centre cemented its position as a centre for retail shops, and food and beverage outlets. They also complement the Blocks 40–47 Holland Drive NC that was developed nearby and more specifically to cater to the HDB residents in that estate.



23. Holland Road Market

To the general public, these clusters of shops in private estates are often also seen as communal centres as they are able to meet the fundamental objectives aligned with NCs—as places to eat, buy groceries and provisions, and meet others.

CHAPTER 2

CATERING TO RETAIL NEEDS

“

The HDB frequently received requests from residents for provision of more shops closer to their homes so that they need not walk too far away. However, there is a need to balance this against business viability to prevent oversupply.

”

YAP CHIN BENG
Deputy Chief Executive Officer
(Estates & Corporate) (2009–2017) and
Senior Advisor, Housing & Development Board (2017–2019)

Resettlement of Shopkeepers

As the Housing & Development Board's (HDB's) main interest in the early years was to resolve resettlement, the provision of shops was deemed a multi-pronged approach to house resettled shop owners and residents, while preserving community ties and providing employment. In this light,

Administrative Area	Industrial Establishments			Shops			Hawker Stalls			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Balestier (Kampung Java)	227	606	833	187	94	281	138	74	212	552	774	1,326
Bukit Ho Swee	-	-	-	554	300	854	489	316	805	1,043	606	1,659
Bukit Merah	1,439	3,976	5,415	488	280	768	95	86	181	2,022	4,342	6,364
Chin Swee	-	-	-	4,395	2,134	6,529	271	248	519	4,666	2,382	7,048
Henderson	3,754	629	4,383	436	226	662	429	305	734	4,619	1,160	5,779
Kallang	160	119	279	805	557	1,362	276	235	511	1,241	911	2,152
Kallang Basin	1,746	5,595	7,341	1,385	668	2,053	348	247	595	3,479	6,510	9,989
Macpherson	-	-	-	807	606	1,413	708	511	1,219	1,515	1,117	2,632
Queensway	225	997	1,222	448	360	808	209	119	328	882	1,476	2,358
Stirling	-	-	-	921	556	1,477	349	261	610	1,270	817	2,087
Tiong Bahru	516	4,439	4,955	658	362	1,020	329	211	540	1,503	5,012	6,515
Toa Payoh Central	203	949	1,152	836	427	1,263	91	82	173	1,130	1,458	2,588
Toa Payoh East	243	2,454	2,697	755	440	1,195	469	273	742	1,467	3,167	4,634
Toa Payoh West	390	3,496	3,886	503	305	808	383	272	655	1,276	4,073	5,349
	8,903	23,260	32,163	13,178	7,315	20,493	4,584	3,240	7,824	26,665	33,815	60,480

24. Employment survey conducted by the HDB Statistics and Research Department in 1972

the provision of commercial premises for affected shops in the cleared areas of the city centre was akin to the provision of dwelling units for resettled squatters. In addition to light industrial establishments within a town, shops and hawker stalls were regarded as a way to create and formalise employment in HDB estates. Censuses were even conducted in the early 1970s to ascertain the percentage of workers living in HDB estates and the breakdown of employment created in these estates.⁷⁹

As most of the shops built served as replacements for the resettled shopkeepers during the resettlement period, the shopkeepers were not required to make formal offers for their shop units and were supported by generous rental concessions to help in the re-establishment of their businesses.⁸⁰ It was only after the resettled shopkeepers were well accounted for that any excess shop units within the town centres and NCs were let out through an open tender system.⁸¹ The resettled shopkeepers were allocated shop units in batches based on the region of their former shop locations, with their new shop units in the vicinity of other resettled residents from their previous area. This helped them to tap on their pre-existing customer base and community ties to ensure continued financial viability and patronage in the new HDB towns.⁸²

The policy that instituted the benefits, conditions and compensation rates for the resettled communities was revised over the years, and at one point regarded shop and workshop units as a form of compensation in place of land for farmers. Priority was given to resettled farmers who requested shops and workshops, demonstrating that resettlement was as much a tool for ensuring a more sustainable source of income for the resettled community.⁸³

By the late 1980s, after most of the resettled cases had been addressed, the resettlement policy was revised such that the shopkeepers resettled in the last few batches were not entitled to direct allocation of HDB shops. The revisions came amid observations at the time that the resettlement cases had inadvertently contributed to a poor shop mix and limited variety of services in HDB neighbourhoods.⁸⁴ Instead, shopkeepers were required to participate in the open tender system for HDB shops. To assist them in obtaining an allocation, these shopkeepers were given a concession in tenders that enabled them to still be awarded the HDB shops even if their bids were 5% to 10% lower than the highest bidder. Otherwise, they could consider obtaining cash grants if they chose to operate from temporary or permanent rent-controlled premises.⁸⁵

Injecting Flexibility and Competition into the Retail Landscape

Reviewing Shop Rentals

In the 1970s and early 1980s, when the HDB shops had been constructed mainly to accommodate resettled shopkeepers, the HDB shops were rented out on monthly tenancies with no provision for rental adjustment in tenancy agreements. The shop rentals for resettled shopkeepers were fixed at 90% of the lowest successful bid in the public tender. In fact, resettled shopkeepers were only required to pay 50% of this reduced shop rental in the first year (i.e., 45% of the lowest successful bid), with an increase of 10% in each subsequent year until the sixth year, from which point the rent would be capped at no more than 90% of the public rental rate as a form of rebate. Additionally, in areas that experienced high public demand and hence inflated rents of more than twice the minimum approved HDB shop rental rate, the HDB's internal shop committee would set an appropriate rent limit for resettled shopkeepers as an additional safeguard against the occasionally erratic public tender system.⁸⁶

"For about 20 to 30 years, shop rentals had been up to S\$1,000. If we did not introduce market discipline, it might have continued as a legacy and could be akin to rent control."

—Tan Poh Hong, Deputy Chief Executive Officer
(Estates & Corporate), Housing & Development Board (2004–2009)

In the event that the HDB decided to call for a rental adjustment, it had to first announce it through a national policy, making it rather difficult to implement rental adjustments to meet the increasing land value in the wake of resettlement and rapid urban development.⁸⁷ Rental adjustments were often met with much resistance from shopkeepers, who at one point in time responded by forming trade associations in the hope of delaying and reducing a rent increase. In 1983, 11 trade associations organised joint petitions, meetings and appeals to the HDB and MND with the support of Members of Parliament to explore suggestions for a more moderate increase or longer timeline for the enactment of the rental adjustment.⁸⁸

By the mid-1980s, this had proven to be untenable as HDB shop rents remained a mere fraction of the actual market rates. This low rental cost made it financially viable for heartland shops to operate with reduced shop hours or benefit from unofficial subletting arrangements.

The lack of competition created by the low shop rents also disincentivised shopkeepers from improving their business operations, such as through the provision of better quality and selection for consumers. In all, this had an impact on the availability of goods and services, price of goods, as well as the retail and product mix for residents, which necessitated a concerted effort to introduce market discipline into the retail space of HDB towns.⁸⁹

The fixed-term lease, introduced in 1987 for all existing HDB shops, offered leases of 1 to 3 years depending on the type of shop. Unlike the monthly tenancies which required only a one-month notice from either party to break the tenancy agreement, the longer fixed period provided assurance to both the HDB and tenants. Mirroring the tenancy practices of the private sector at the time, the regulated timelines lent the HDB and shop tenants a longer and more predictable horizon for making informed business planning and investment decisions. When a tenancy was due for renewal, the rent was reviewed and negotiated to reflect the prevailing market rate, which may have been higher or lower than the rent for the concluding term.⁹⁰

Encouraging Shop Competition Through Ownership

Around the same time, in 1988 the HDB launched the Sale of Shops Scheme to encourage HDB retailers to take a greater stake in their shops and to help them hedge against rental hikes. Not only did this aim to promote healthy competition in the provision and quality of goods and services by prospective shop owners in the estates, but it was also akin to an extension of the home ownership concept at the core of the HDB's model. This scheme adopted similar regulations for the purchase of private commercial property.⁹¹ Most significantly, selected shops were sold by public tender on 99-year leases with the flexibility to sublet, assign, mortgage and change trades for the shop premises.⁹²

While there was no limit to the total number of shop units each person was allowed to buy for their own business use, tenderers who bought shops as a form of real estate investment were only allowed to purchase up to two shops per HDB estate. Proprietors acting solely or in partnerships could even use their Central Provident Fund savings to pay for the shop units. Shops under the scheme were selected based on factors such as geographical spread, a good mix of locality, and the age of the shops.^{93,94}

The first sale of shops comprised 45 new shops at Blocks 150-152A Bishan Street and was quickly followed by additional shops sold in the Bukit Timah HDB estate and Serangoon Town Centre. The scheme generally received positive responses with the tender pricing for the shops dependent on their location. Subsequent batches of shops included units in new NC typologies such as the new generation NC (NGNC) in Choa Chu Kang (Keat Hong Shopping Centre) in 1994.⁹⁵

In 1992, the sale of shops was extended to existing HDB tenants through the introduction of the Sale of Tenanted Shops Scheme, with the objective of restructuring the tenanted shops in HDB estates and enhancing their operational efficiency. The scheme was subsequently expanded in 1994 to encompass hawker centres and market stalls.⁹⁶ Across the 6 years that the scheme was implemented, 7,711 tenanted shops were offered for sale, which were released in 18 batches that on average had a 90% to 97% take up for each batch.^{97,98} In 1998, the HDB discontinued the direct sale of HDB shops. In total, the HDB had sold approximately 8,500 shops under the two schemes. Today, the HDB rents all its shops to businesses directly, so that the HDB as a landlord can better manage the trade mix of its shops while ensuring the affordability of essential goods and services for residents.⁹⁹

Instituting Retail Provision and Retail Mix

The provision of town centres, NCs and precinct shops went beyond ensuring the construction of physical infrastructure such as retail blocks, wet markets, hawker centres and suburban malls. It was also important to ensure that the supply of shops, as well as the goods and services they offered, were well-curated to meet the demands of residents.

Based on the HDB's experience in managing shops, there was a need to ensure that retail provision and retail mix were maintained in a fine balance, and that services and products were curated to remain relevant over time. Shop-to-dwelling ratios was one planning parameter used to gauge the provision of commercial shop units in relation to the number of households in a town.

Fine-Tuning Shop-to-Dwelling Ratios as a Planning Parameter

In the early days, a shop-to-dwelling ratio of one shop for every 50 flats was adopted for pioneer townships such as Queenstown and Toa Payoh. In the 1980s, this ratio was adjusted to one shop for every 75 flats, which influenced ongoing developments during that time such as in Bishan. In the 1990s, this ratio was further altered to one shop for every 120 flats, which came up to less than half of the initial ratio used by the HDB.¹⁰⁰ The gradual reduction in shop-to-dwelling ratio may be mostly attributed to a combination of factors including the economic downturn of 1985, the increasingly well connected Mass Rapid Transit network in the 1990s, the government's push for productivity, and the HDB's growing experience in public housing and town development.

One of the key events that coincided with the marked drop in shop-to-dwelling ratio from the late 1980s was the Small and Medium Enterprises (SMEs) Development Plan Workshop in 1988 that had been initiated to review how SMEs could be assisted while ensuring adequate convenience for residents. Participants of the workshop concluded that the then national average of one shop for every 40 households, including private residences and HDB flats across downtown and heartland commercial areas, indicated an oversupply of shops in Singapore. They expressed concern that this could create excessive competition between shopkeepers. Proponents of reducing the shop-to-household or shop-to-dwelling ratio highlighted the larger customer bases and increase in profits that SMEs could potentially enjoy, as well as the desire to achieve higher productivity in Singapore. While the workshop participants noted that there might be some implications from the shift to a lower ratio, such as higher tender prices for HDB shops and consequently higher costs of

goods and services, they concluded that the benefits would outweigh these trade-offs.¹⁰¹ Interestingly, the discourse of heartland shops vis-à-vis the overall supply of shops in Singapore highlighted that the reach of HDB shops extended beyond the public housing estates—it also supported the daily retail needs of residents living in private estates.

Since then, other parameters have been adopted into the strategic planning of retail in Singapore. At the island-wide level, the Urban Redevelopment Authority (URA) determines residential retail amenity and worker retail amenity based on the number of residents and workers in the planning area. At the town level, the URA works closely with the HDB to determine the spread of retail quantum across town centres, NCs and precinct areas, to ensure good catchment and coverage. Naturally, residential areas such as neighbourhoods have a higher net floor area of retail per dwelling unit compared to low density non-commercial land uses such as for industries. These parameters may be adjusted over time, based on the prevailing land use in the planning area.

Ensuring a Suitable Retail Mix Within the Towns

Ever since the HDB took over the development of Queenstown, they have produced guides for the provision of community amenities and key retail shops. Since then, the retail mix has evolved to meet the needs of each generation. Earlier considerations for more traditional trades such as incense shops and traditional Chinese medicine shops have given way to include newer trades like mobile phone repair and wellness services that address contemporary demands.¹⁰²

The 1980s, in particular, saw “trade wars” between HDB shops in the same town centres and NCs. These were largely attributed to a more permissive policy in 1984, which gave HDB shops and factories the flexibility to change or add trades without having to pay additional fees or rents.¹⁰³ This resulted in shops offering unrelated products that might have been available in other existing shops specialising in that trade. For example, florists began selling vegetables at the Block 409 Ang Mo Kio Avenue 10 NC, and a furniture shop in Tampines town centre sold *nasi lemak* on the side.¹⁰⁴ Not only did this practice result in trade friction between neighbouring shopkeepers, it undercut prices between shops and market stalls as rents for the latter were significantly lower.¹⁰⁵

Harnessing Shop Allocation Mechanisms for Balancing Retail Mix and Cost of Living

In the early years of resettlement, resettled shopkeepers were prioritised for the allocation of shop units, before remaining units were opened to interested new entrants for tender. The winning tenders were decided mainly on the bid price, with only some consideration to ensuring a representative variety of trades and services were covered for the convenience of residents.¹⁰⁶

By the late 1970s, this had changed with trade groups taking precedence over rent. While shop units were not zoned according to any particular trade prior to the call for tenders, the winning tenderers were awarded in a way that ensured at least one shop of every trade was available within the intended commercial area. For example, if three tenders of (A) S\$1,000, (B) S\$900 and (C) S\$850 were received for two shop units, with tenderers A and B in the same trade, the shop units were offered to tenderer A as the higher bid between those of the same trade, and tenderer C to ensure sufficient variety in the retail mix.¹⁰⁷

However, this tender system for the allocation of shop units had a tendency to cause competitors to outbid each other, which resulted in unrealistic and overvalued winning bids. Thus, in 1986 the HDB adopted a two-bid tender system instead. Under this scheme, tenderers were allowed to submit two bids, with the potential for the successful tenderer to rent the shop unit at the lower of their two bids, if both their bids exceeded those of other bidders. To illustrate, if a tenderer put up two tenders of S\$2,000 and S\$1,500 per month for a shop unit, the tenderer would be offered the unit at a monthly rent of S\$1,500 if both bids were higher than the bids of other tenderers. However, if the next highest bid from a prospective tenderer was in between the two bids at perhaps S\$1,800, the tenderer would have to rent the unit at the higher bid of S\$2,000 a month.¹⁰⁸

While the two-bid tender system provided a threshold for lower bids to be accepted, it was still difficult for tenderers to be fully aware of the perceived market value of the shop unit by their competitors. Tenderers who were determined to secure the shop unit could easily submit two high bids during the tender process. Even if the lower of these two bids was used as their monthly rent, understandably, this new shop tenant would need to price their goods and services accordingly to earn sufficient profit to cover their rent.

With the advancements and increased pervasiveness of digital technology in the following decades, the Place2Lease e-bidding platform was introduced in 2002 for the HDB's industrial premises. Place2Lease was an online application that allowed people in the community who were interested in tenanting a HDB industrial unit to bid for vacant units. This real-time and transparent format allowed interested bidders to be aware of the number of bidders competing for the same unit and the estimated bid prices on that unit, and thus in a better position to place their bids in relation to others. It also included information on similar units available so that bidders who were willing to explore other units could easily find alternatives to suit their needs.

The first two batches of 2,396 and 2,339 vacant industrial units were tendered out with 16% and 22% successfully allocated, respectively. Although the successful allocation rates were generally low due to the macroeconomic slowdown in Singapore between 1999 and 2003, the initial response to e-bidding was generally positive as the awareness of the bidding prices resulted in lower successful tender bids compared to the conventional tender system. The platform's transparency reduced the likelihood of over-valued tender bids and thus established more realistic rental rates in HDB industrial units, especially in the wake of the Asian Financial Crisis.¹⁰⁹

In December 2003, with the push for government services to go digital, the HDB revamped Place2Lease to fully embrace the new online modality. This entailed designing a more user-friendly interface, extending the hours for releasing units and offering alerts via email or Short Message Service (SMS). Additional features such as the Quick Bid mode helped bidders secure units in under 10 minutes, and the Going-Going-Gone function allowed for a more competitive bidding experience.¹¹⁰ In all, the benefits of Place2Lease far outweighed the conventional envelope tender system, with newly vacated units sometimes being let out to new tenants within a week.¹¹¹ Consequently, a handful of commercial premises were trialled on the Place2Lease platform in March 2004, before it was fully adopted for commercial premises a year later.¹¹²

The most recent shop allocation mechanism to be adopted, the Price-Quality Method (PQM) tender is used for NGNCs and crucial commercial premises such as eating houses, more commonly known as coffee shops, and supermarkets. For eating houses and supermarkets, this was done to ensure that tenders are not simply awarded to the highest bidder who might otherwise have overbid through the e-bidding system. Without such checks, the high rent might be passed on to the stall holders that they sublet to, thus resulting in an increase in the cost of basic products and meals for consumers and residents.

By considering bid price as well as quality of the proposal through the PQM tender mechanism, the HDB can ensure that eating houses and supermarkets are only let to qualified tenders with a suitable track record, and the ability to deliver on other quality measures; for instance, food and grocery affordability, and community-centric initiatives that give back to society.¹¹³

For the NGNCs, the PQM tender model has allowed the HDB to better control the mix of trades and provisions available. It also sends the message that beyond the tender bid, the HDB also factors in the suitability and quality of available products, the shopping experience, and business operations.¹¹⁴ This approach has helped the HDB to attract a wider pool of prospective tenants, facilitating a more diverse mix in their NGNCs.

In November 2022, the PQM tender mechanism was enhanced by increasing the weighting accorded to the quality of tenderers' proposals to 60% of the tender score, while the tender price component was reduced to 40%. The criteria for calculating the quality score include productive concept, operations and management, business- and community-centredness, and the track record of the tenderer. In the future, the PQM tender mechanism will be extended to more types of heartland shops. Given its potential strength helping to preserve the local character and heritage of the heartlands, this mechanism has also been proposed to be used in areas of conservation interest, and in selected locations that have a higher proportion of senior residents. The former will benefit from a more tightly curated mix of goods and services, while the latter will ensure that some supermarkets and minimarts are well-stocked with the critical and essential items needed by elderly residents, especially those who have limited mobility.¹¹⁵

More recently, due to increasing concerns about the high cost of living, the HDB further revamped the tender and rental renewal considerations for coffee shops to ensure that the price of cooked food remains affordable. Since May 2023, all HDB rental coffee shops¹¹⁶ have been required to offer "budget meal" options upon tenancy renewal—where food is priced at S\$3.50 or less, and drinks at S\$1.20 or less¹¹⁷—and it is anticipated that by 2026, budget meals will be offered at all HDB rental coffee shops. To help shop owners manage the cost of operations and rent while providing budget meals, the HDB has been monitoring the rental costs for HDB rental coffee shops. For HDB rental coffee shops awarded under the PQM tender, their winning rental bids are on average 27% lower than those awarded under the previous e-bidding system.¹¹⁸ Other HDB rental coffee shops that are not leased under a PQM tender will be offered a rental discount of 5%

off the market valuation-based renewal rates for a year, starting from the time of the tenancy being renewed (subject to verification that budget meals and drinks have been implemented).¹¹⁹ Since 2024, 126 privately-owned HDB coffee shops have also started offering budget meals and drinks. In 2025, the HDB announced that all privately-owned coffee shops which rented Outdoor Refreshment Areas from the HDB would have to offer budget meals and drinks as a condition of renewing the rental agreements for these areas, progressively by 2028.

Benefiting from a Combination of Shop Allocation Mechanisms

Presently, the HDB uses a combination of shop allocation mechanisms including Place2Lease e bidding, units let by a marketing agent, and PQM tender. The former is most frequently used, especially for common shops which are abundant in supply. The transparency and speed enabled by e-bidding allows bidders to self-moderate based on their individual levels of interest and priorities. It is thus well-suited for such shops as bidders are able to find similar alternative units.

In contrast, the resource-intensive PQM tender mechanism is reserved for essential businesses, such as eating houses and supermarkets, whose prices may have larger impacts on the cost of daily necessities and meals for average consumers, and also for NGNCs where a good trade mix is desired. This helps to protect the tender price and curate the selection of available products in line with the HDB's vision for the area or national goals.

In all, the combination of shop allocation mechanisms used helps to moderate the amount of resources and manpower required for assessing or processing tenders and bids for shop spaces. Beyond the physical infrastructure of the commercial shops in HDB towns, these mechanisms ensure a diverse and relevant retail mix in each town and at different levels of granularity, while maintaining suitably priced rents for shop tenants and consequently the costs of goods and services for residents.

“A combination of shop allocation mechanisms, that have been adopted over time, helps us to build on the strengths of each of them. Adopting special mechanisms for specific key amenities could help us to curate the retail mix and needs of these a bit more tightly.”

—Kee Lay Cheng, Group Director (Properties & Land),
Housing & Development Board (2014–2023)

In line with the acceleration of digitalisation, the HDB is looking to digitise part of their PQM tender mechanism to further improve efficiency. By allowing interested tenderers to access calls for tender and submit their tender proposals online, the HDB could speed up the processing of tenders and more importantly make tendering more convenient for tenderers.¹²⁰

Managing Oversupply of Shops

As a public housing authority, the HDB has to attend to the needs of its residents for daily living by facilitating the provision of everyday goods and services. This includes ensuring that sufficient retail options are available in terms of quality, variety of shops, goods variety, quantum of shops, and consequently prices. At the same time, the HDB plays a unique role as the landlord of most commercial units in its towns and harnesses its residents as the consumer base for its tenants. While the HDB's role as a landlord to shopkeepers is not its primary role as a public housing authority, failure to ensure a tight retail provision could lead to an excessive number of vacant shop units, as well as a lack of incentive to maintain the quality of goods and services in the heartlands. It is thus important that the HDB maintains a careful balance between meeting residents' consumer needs while ensuring shopkeepers' business viability.

As of 2024, there were 13,315 shops, 1,095 eating establishments, and 365 supermarkets and minimarts under the HDB's management.¹²¹ This figure is a snapshot in time and the HDB will need to be dynamic to respond to emerging trends that might affect demand and supply. Changing consumer preferences and e-commerce have already demonstrated the need to relook at the shop-to-dwelling ratio and retail mix; for instance, to mitigate the oversupply of shops.

Issue of Oversupply

As the HDB's foremost concern in its first few decades was to wholly resettle communities from sites cleared in the city centre into newly developed HDB towns, the provision of retail spaces—to ensure the livelihood of the peddlers, hawkers and shopkeepers who were formerly squatting—was of immediate priority. It only became apparent in the mid- to late-1980s that there might be an oversupply of retail spaces in

HDB towns.¹²² This observation came concomitantly with the advent of suburban malls, which were supported by the increasingly well-established public transport network at that time.¹²³ Without a strong collective body to organise promotional activities in NCs and update retail space designs, shops in NCs began to lose in popularity compared to the new shopping typology.

Consequently, HDB shops experienced decreasing demand, which necessitated a reduction in retail space in NCs, where about 59.9% of all HDB shops had been located around that time.¹²⁴ Immediate policy changes included ending the priority shop allocation for resettled shopkeepers, so that the shop-to-dwelling ratio would be delinked from the expected number of replacement shops for resettlement cases. This gave the HDB the opportunity to reduce shop provision to align with their planning intentions.¹²⁵

Admittedly, the issue of oversupply of retail spaces was not unique to HDB estates. Rapid urban development until the year 2000 had led to a national growth rate in retail spaces between 1996 and 2000.

Managing Oversupply through the Removal of Shops

The Voluntary Retirement Scheme (VRS) was piloted in 2001 as a first step to manage the oversupply of shops while allowing tenants in older estates, especially the elderly first generation shopkeepers, to retire from their businesses amid the challenges faced by the HDB's retail sector. Implemented in estates with weak business conditions and excess retail space, it gave tenants who voluntarily retired an ex-gratia payment of S\$48,000 from the HDB on a goodwill basis.¹²⁶ As for the tenants who opted to continue their business, they were given an allowance of S\$5,000 to regroup within the same block or into shop units in neighbourhood blocks. They were also encouraged to upgrade and modernise their business operations through the Retail 21 programmes run by the Singapore Productivity and Standards Board (present-day SPRING Singapore). Of the 275 shops identified for this pilot in Geylang, Jurong and Queenstown, 38% of the tenants retired their businesses, most of which were located at Old Airport Road, Margaret Drive and Commonwealth Avenue. Due to the low take-up rate, the VRS was suspended in October 2001.

As there remained calls for the HDB to rationalise its shop supply after the VRS was suspended, the HDB then introduced the Restructuring Programme for Shops (RPS) in March 2005. Like the VRS, the RPS was meant to assist shop tenants in estates where business was poor and there was an oversupply of shops. The selected tenants could choose whether to retire or continue operating their businesses; if they decided to retire,

they received an ex-gratia payment of S\$60,000 on a goodwill basis. However, unlike the VRS, the RPS was offered on a block-by-block basis. If more than 50% of the tenants in a block chose to end their tenancies, all the shops in the block would be cleared to avoid creating pockets of vacant shops. For tenants that wished to stay but were cleared by majority vote, they also received a removal allowance of S\$10,000 and were subsequently relocated to vacant units in other blocks. Additionally, the RPS placed a greater emphasis on the restructuring and upgrading of the remaining shops. The HDB partnered with SPRING to help the remaining shops upgrade their operations and boost their competitiveness under the RPS. The shopkeepers could tap into SPRING's Domestic Sector Productivity Fund to co-fund 50% of revitalisation costs over 3 years. They could use this funding to support activities like developing promotional strategies, advertising plans, and buying strategies through consultant engagement.^{127/128}

The pilot phase of the RPS was launched for 21 blocks containing 193 shops located at Marsiling Drive, Jalan Bukit Merah, Bukit Batok West Avenue 2, Bendemeer Road, Toa Payoh Lorong 5, Bedok Reservoir Road and Clementi Street 12. Notably, some of these areas that were identified as having an oversupply of shops and poor business coincided with the first few HDB towns that had been planned with a higher shop-to-dwelling ratio, such as Toa Payoh, Bedok and Clementi. Eventually, 8 blocks, comprising 93 shop tenants, chose to quit under the RPS.¹²⁹ The vacated shop spaces were then used for social amenities such as senior activity centres and childcare centres, converted into void deck spaces, or let out en block to a master operator.

As almost 50% of the selected shops under the pilot batch opted to retire their businesses, the RPS was then extended to all HDB rental shops in March 2006. Shop tenants who were keen on participating in the second batch of the RPS could nominate themselves for the scheme through their adviser. The HDB would then account for the ground support for the RPS in the nominated blocks, as well as the availability of nearby commercial amenities to serve residents, before shortlisting the blocks to undergo the RPS. The RPS was further fine-tuned in RPS Batch 3. The qualifying criterion was revised downwards to 30% to allow more tenants to benefit from the programme. More crucially, a block could only proceed with the RPS if the remaining tenants agreed to a feasible regrouping plan to create better business synergy and avoid inconveniences to the residents. As it was assessed that there was no further need to reduce the shop supply, the RPS was discontinued after Batch 3. In all, at least 276 shop tenants opted to end their businesses there under the RPS scheme.¹³⁰

One of the notable success stories of the RPS was the rejuvenation of the shop clusters at the Sunset Way NC at Clementi Street 12. After the conclusion of the RPS, Sunset Way was revitalised as an alfresco dining destination with lush greenery. While the shop tenants have certainly changed since then, Sunset Way has retained its reputation as an enclave of diverse and slightly upmarket food options.^{131,132}

Managing Oversupply by Increasing Business Productivity and Resilience Through the Built Environment

Over time, as the resettled shop owners who were keen to exit their trade took advantage of the retirement schemes to leave, the HDB observed that the demand for such schemes was gradually waning. This signalled that those who had not taken up either of the schemes had a firm intention to remain in the heartland retail business for the long haul, necessitating a shift in the strategy for dealing with oversupply from reducing the physical provision of retail space to increasing the productivity of businesses and business resilience.

Expanding on the need for revitalisation as a business strategy for local shops, the HDB introduced the Revitalisation of Shops (ROS) scheme in November 2007, just as it announced the final batch of shops under the RPS scheme.¹³³ The objective of this scheme was to support heartland retailers in improving the commercial vibrancy and business competitiveness of their shops by providing them with the financial resources to upgrade their shop spaces. Before the introduction of the ROS scheme, several merchant associations had worked with their local town councils to carry out physical upgrading works in the common areas of their town centres and NCs so as to improve the overall shopping ambience for shoppers. However, shop owners had to bear the full cost for items such as block awnings that directly benefitted their shops.¹³⁴

Under the ROS scheme, the HDB provided co-funding for upgrading of common areas and promotional activities. The HDB and respective town councils bore 50% of the upgrading costs up to S\$10,000 per sold shop, and 100% of the upgrading costs up to S\$20,000 per rental shop. Upgrading works often included the construction of new walkways. At the same time, shop tenants were responsible for improving the interior of their shop spaces, with the support of SPRING Singapore in marketing, packaging and displays. The pilot batch of shops included 14 sites comprising town centres and a handful of NCs.¹³⁵

Through a series of initiatives, such as co-funding the upgrading of common areas and promotional activities, the HDB sought to create long-term value for the owners of these shop assets by enabling them to potentially raise their rents in the future while ensuring that NCs and neighbourhoods were maintained as vibrant spaces and would remain relevant to meet residents' changing retail needs. The ROS scheme was generally well-received by shop owners in the selected sites, short of a handful that remained resistant to participating in the scheme. Nevertheless, the upgrading of common areas improved the general quality of the shopping environment for residents.¹³⁶

BENEFICIARIES OF THE REVITALISATION OF SHOPS SCHEME

By 2016, more than 4,684 shops from 54 towns and NCs island-wide had benefitted from the ROS scheme, covering more than 50% of such centres. Of these, 16 HDB towns and NCs have since completed upgrading and another 8 centres are at various stages of upgrading. In addition, more than 300 promotional events have been organised by the merchants' associations under the scheme.¹³⁷

Despite its success, there were also reports that small to medium-sized retailers experienced mixed effects from the scheme, and to differing extents. Following the renovations in Jurong West under the ROS scheme, some shops reported higher footfall along their common corridors and in-store, and an increase in business. Shop owners also found that the market value of each shop increased as a result of the renovations. On the other hand, some retailers' business did not improve, which they attributed to a lower footfall to their shops as shoppers may have "found other places to go to"; the shopkeepers also attributed the lack of increase in business to market conditions at that point in time.¹³⁸

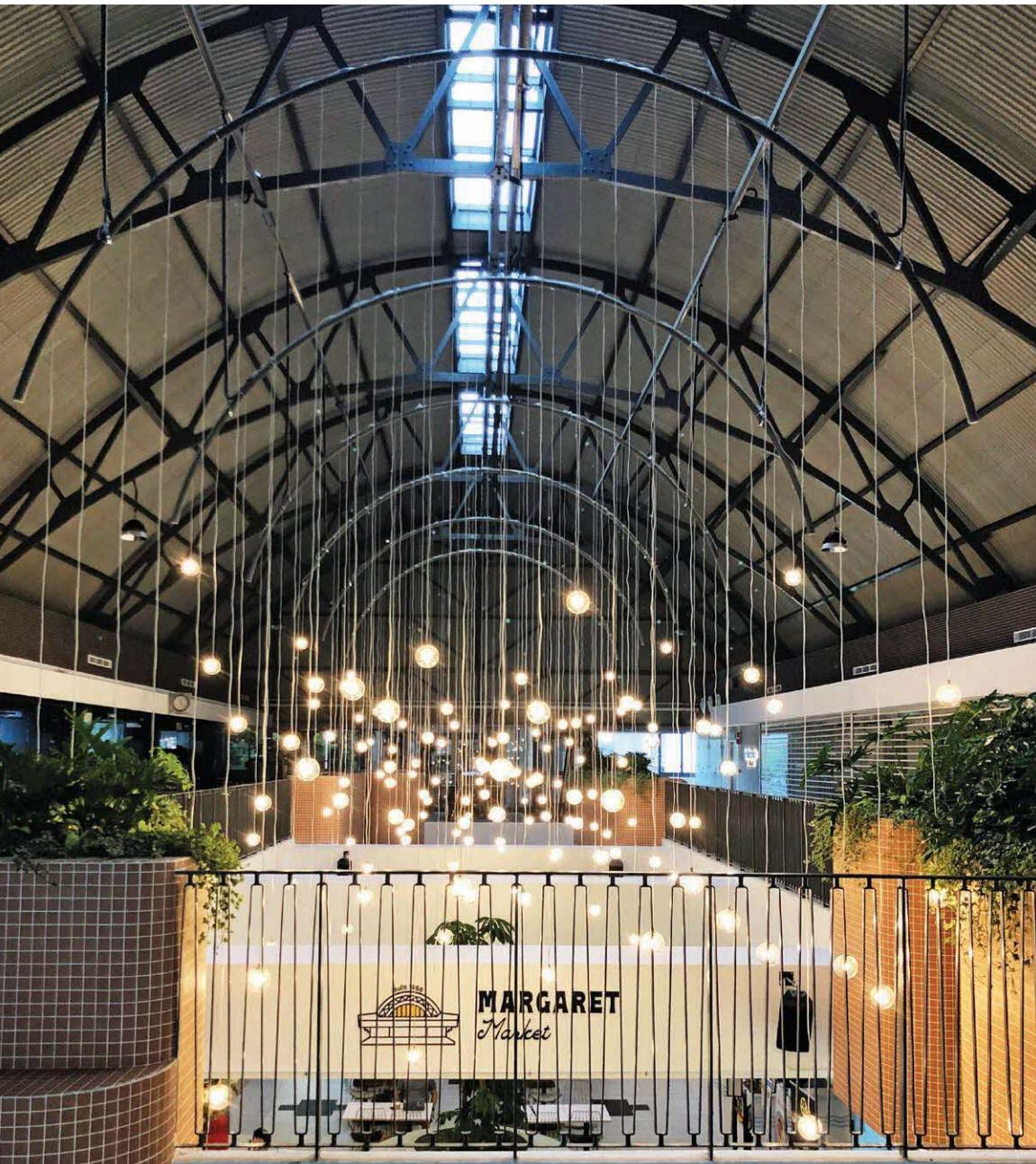
Through the scheme's pairing of commercial sites, corresponding merchant associations and SPRING Singapore, the selected sites were guided towards a more considered and collective approach aimed at improving and activating their shops. One example is the Serangoon North NC which had informally been recognised as a hub of pet shops and related goods and services since 1986. The support and advice rendered by SPRING Singapore guided the overall business strategy of the area to leverage and formalise this strength to brand the NC as a one-stop shop for pets. While the overarching marketing of Serangoon North NC differed from some of the trades present, these other shopkeepers recognised that they too would benefit from the increased inflow of new customers to the area.¹³⁹

The lineage of schemes exemplified the need to actively address the oversupply of shops in existing towns while boosting the overall business productivity. This had to be done in a calibrated manner, in order to strike a balance between the convenience of shops and the quality and relevance of products and services for residents. Today, the ROS scheme continues to be utilised to upgrade the businesses and common commercial areas in HDB heartlands. In January 2023, the threshold for precincts to proceed with upgrading works under the ROS scheme was reduced to at least 75% support from shopkeepers, from the previous 100% support requirement.¹⁴⁰ The lowered threshold meant that the common areas around precinct shops could be upgraded if 75% of the shop owners agreed to the works.¹⁴¹ To increase the attractiveness of the scheme, the HDB also increased its funding for upgrading works so that shop owners would only bear 5% of the costs.¹⁴² This was done in recognition that heartland shops are quintessential to Singaporeans' daily living, and upgrading works would be significant in helping them remain competitive.

Managing Oversupply Through Redevelopment

Parallel to these retail schemes to remove, retire and upgrade shops, the HDB also looked to its other programmes for opportunities to address the oversupply. First introduced in 1995, the Selective En bloc Redevelopment Scheme (SERS) is part of the Government's overall efforts to rejuvenate old HDB estates and modernise living environment for residents. It optimises land use and helps to refresh older HDB estates with more contemporary unit, block and precinct designs, and ensures that the public housing stock evolves with changing demographic needs and trends.

Each SERS project is typically at the precinct level. The redevelopment of these blocks, if it involves commercial developments, presents a possible opportunity to remove excess precinct shops, make adjustments according to the neighbourhood's retail needs, and fine-tune the retail provisions in redeveloped estates and their surrounding areas. The use of redevelopment projects to address retail concerns also demonstrates lateral and integrated thinking which is critical both in considering the multisectoral implications of decisions related to the built environment and also in identifying ways to deliver multipronged solutions to urban issues.



CHAPTER 3

REFRESHING RETAIL ENVIRONMENTS

“

Upgrading and rejuvenation is tricky as there are undeniable benefits and need for it. At the same time, we always want to encourage reciprocation by the shops through a percentage co-payment or various rules in our schemes, to build a greater sense of ownership.

”

CHEONG KOOON HEAN

Chair, Lee Kuan Yew Centre for Innovative Cities,
Chair, Advisory Panel for the Centre for Liveable Cities,
Professor of Practice, Singapore University of Technology and Design,
and Chief Executive Officer, Housing & Development Board (2010-2020)

Upgrading and Redevelopment

In the 1990s, 30 years after its first blocks were built, the HDB started to observe that the physical infrastructure of its residential and commercial blocks had aged or become outdated. There was thus a need for these older blocks to undergo infrastructural improvements to remain relevant to the needs and expectations of their residents.

This initiated a demonstration phase for what would soon become a suite of upgrading programmes for the HDB. In July 1990, the older blocks in six precincts—Ang Mo Kio, Lorong Lew Lian, Toa Payoh, Clementi, Marine Parade and Telok Blangah—were selected for upgrading to match the quality of newer ones. At the same time, it offered an opportunity to amplify the sense of identity of these precincts through intentionally designed architectural additions. As the first upgrading initiative, consultations and dialogues with grassroots leaders and residents were organised in the lead-up to their implementation so that the precinct communities' acceptance could be sought, and their feedback recognised.¹⁴³

While this upgrading pilot was initially intended mostly for residential blocks, subsequent estate renewal programmes were more all-encompassing, at times including upgrades for the HDB shops and retail scene in the neighbouring NCs.

Shops Affected by Estate Upgrading

The two pioneering upgrading programmes by the HDB were the Main Upgrading Programme (MUP), introduced in 1990 to upgrade precincts that were older than 17 years, and the Interim Upgrading Programme (IUP), introduced in 1993 for precincts between 10 and 17 years old. The MUP covered improvements to flats, apartment blocks and precinct surroundings, and the IUP focused on improving residential blocks and precinct surroundings.¹⁴⁴ As commercial premises were built on the ground floors of the flats in mature estates, they were upgraded in tandem when the MUP was carried out to ensure consistency in the building facade and uniformity in the building services.

HDB shops also stood to benefit from the MUP through the precinct- and block-level works, which improved the shops' overall shopping environment. The precinct works involved upgrading to the areas outside the shops while the block works involved enhancements to the void deck lighting and other improvements to the common corridors. In addition to the above works, the shops could also opt for space adding items to be provided under the MUP if the flats above them had also opted for them.^{145,146,147}

For shop tenants, the cost of the upgrading works, including the space-adding items, were fully borne by the HDB as the landlord. As for shop

lessees, they initially had to bear the full cost of block- and precinct-works, while space-adding items were partially subsidised at 30%. From 2001, the HDB provided a 50% subsidy for the standard package of block- and precinct-works for shop lessees. Additionally, the discount for space-adding items was increased from 30% to 50%. These subsidies were meant to make the MUP more affordable for shop lessees and improve the overall support for the MUP. In all, the cost savings enjoyed by shop tenants typically ranged from about S\$10,000 to S\$15,000.¹⁴⁸

The HDB eventually absorbed the IUP into the Neighbourhood Renewal Programme in August 2007, which emphasised closer engagement with the residents in their processes. The MUP was replaced by the Home Improvement Programme in August 2007 to address common maintenance issues in ageing flats, such as spalling concrete, in a systematic and comprehensive manner, and to provide residents with the flexibility to opt and pay for only the flat improvement works that they want.

Shops Affected by Estate Redevelopment

Another estate rejuvenation programme was the Selective En bloc Redevelopment Scheme (SERS) which was rolled out in August 1995. With the intent of freeing up space in older estates for new and more intensive developments, some of the SERS projects entailed not only relocating residents, but also the clearance of existing shops and hawker stalls so that the earmarked estates could be demolished and comprehensively redeveloped to meet the updated and current needs of residents. When HDB-owned shops were cleared, the number of new shops to be offered as replacement shops in the redeveloped area depended on the existing supply of commercial premises in the vicinity. Hence, SERS offered an opportunity for the HDB to rationalise the number of shops to reduce oversupply.

Yet, as SERS would result in the displacement of the existing shopkeepers, some of whom may have operated in the estate for a long time, it also called for a suite of dedicated policies to ensure that the affected stakeholders were comprehensively supported after SERS was implemented. For the affected shop tenants, they received a 10% discount for the first term of their tenancy at their relocated shop premises after they had successfully bid for a new shop space. Small and medium-sized enterprises (SMEs) owned by Singaporean tenants that moved to alternative premises (which could be a HDB or non-HDB property) to continue their business would also qualify for an additional S\$30,000 relocation assistance benefit. Additionally, if the business was fully owned by Singapore citizens, and the tenant had tendered for the unit before 4 March 1999 or been assigned the unit before 1 June 1999, they were also offered an ex-gratia payment of S\$60,000 on a goodwill basis.¹⁴⁹

As for sold shop owners, they were compensated for their shops based on market valuation and were assured of a replacement shop with a 30-year lease built at the replacement site for flats.¹⁵⁰ That said, as the HDB had already observed an oversupply of retail shops then and was at the cusp of introducing policies to address this, they also took the chance to encourage shop owners to retire by offering an additional 10% in compensation on a goodwill basis.¹⁵¹

Rejuvenation

The HDB's strategies for improving its estates have not been limited to upgrading and updating infrastructure but also programming and encouraging business improvement.

Remaking Our Heartland

Unveiled at the National Day Rally 2007, the Remaking Our Heartland (ROH) programme was launched as a comprehensive rejuvenation blueprint to renew and further develop existing HDB towns and estates into vibrant and endearing homes. The first batch of ROH towns/estates were Punggol, Yishun and Dawson, where the programme focused on realising the vision for new estates, rejuvenating communities in middle-aged estates, and regenerating old estates via various strategies customised for each town/estate. While this batch did not have initiatives specific to NCs, the rejuvenation efforts to inject vibrancy to these areas foregrounded interventions that would come to be adopted in subsequent batches, such as those targeting improvements in the public realm and community gathering spaces.

For the second batch of ROH towns/estates announced in 2011, the HDB set aside S\$42 million to rejuvenate 21 NCs, containing about 1,500 shops, within the East Coast, Hougang and Jurong Lake.¹⁵² One such NC to benefit from the rejuvenation works is Bukit Batok West Shopping Centre which was built in 1985. The fitness corner was upgraded with new equipment and a playground to encourage intergenerational recreation. The NC also boasts the first community herb garden and the first community pavilion with a self-irrigated green roof, which together have become a backdrop

for community gardening efforts led by residents and students in the vicinity. The Bukit Batok Merchants' Association noted that although business in its approximately 40 shops was affected during the year-long upgrading, the shops quickly recovered and even demonstrated a 10% improvement after the rejuvenation.¹⁵³ Following this success, the HDB announced plans to rejuvenate 14 NCs, comprising about 670 shops, in the next batch of ROH towns—Woodlands, Toa Payoh and Pasir Ris. It was anticipated that over 500,000 residents would benefit from this. Under the 4th and latest batch of ROH towns/estates, a total of 17 NCs in Ang Mo Kio, Bukit Merah, Choa Chu Kang and Queenstown will be upgraded.

While the strategies adopted for the ROH towns varied according to their context and residents' needs, the process had a consistent element of community feedback through regular exhibitions and dialogues. This not only allowed residents to share their hopes and visions for their towns and neighbourhoods, but would also allow residents to be updated on the rejuvenation efforts.¹⁵⁴

Business Transformation Programmes and E-Commerce

Rejuvenation of the heartland retail scene has not been limited to improving the shopping environment but has also included facilitating upgrades for businesses. Enterprise Singapore (EnterpriseSG) encouraged heartland retailers to adopt pre-scooped IT solutions to improve their competitiveness in customer management, inventory tracking and e-commerce, such as through the Productivity Solutions Grant, where SMEs currently receive up to 50% in co-funding, capped at S\$30,000.

A 2017 study conducted by the Federation of Merchants' Associations Singapore (FMAS) revealed that heartland businesses faced three main challenges—changing consumer behaviour, increased competition, and insufficient knowledge for engaging with younger consumers. As a result, the Heartland Enterprise Centre Singapore (HECS), a subsidiary of the FMAS, was established with the support of EnterpriseSG to guide micro-enterprises in the heartlands in business transformation, workforce upgrading and business-based place management. For example, HECS engaged with the Ang Mo Kio Constituency Merchants' Association and Singapore Bedok Town Centre Merchants' Association to rejuvenate their respective town centres by providing training for employers to increase their adoption of technology.¹⁵⁵

In view of the acceleration of digitalisation during the COVID-19 pandemic, several initiatives were rolled out to provide varying levels of support to enterprises including those in the heartlands. One of the first was the E-Commerce Booster Package which was launched around the start of the circuit breaker period in April 2020.¹⁵⁶ This short-term package provided a one-off 90% support to help retailers on-board e-commerce platforms and subsequently for digital marketing advisory services for a period of three months, to help them build long-term capabilities. This was coupled with additional financial support for ensuring that employees were trained to manage such digital marketing needs.¹⁵⁷ The package was reintroduced in preparation for the tightened safe management measures of the Phase 2 Heightened Alert period in May and June 2021, to provide a one-time support of 80% of qualifying costs, with a cap of S\$8,000.¹⁵⁸

In 2020, the Heartland Digitalisation and Revitalisation Committee launched the Heartlands Go Digital programme with the support of the Community Development Council, FMAS, HECS, merchants' associations and SME Centres. Aimed at encouraging heartland retailers and food and beverage enterprises to keep pace with digitalisation, the programme supports merchants in adopting solutions in e-payment and digital commerce platforms such as GrabPay, NETS and Shopee.

The initiative was spurred on by 200 active digital ambassadors who facilitated ground outreach to share the benefits of digitalisation with heartland retailers, and provided advice on suitable solution providers and detailed guidance on adoption of digital solutions.¹⁵⁹ These multi-pronged approaches helped to ensure that less digitally savvy senior shopkeepers were able to understand the impetus of adopting such technologies in their daily operations, and enabled them to pick up the required skills. This initiative rides on the acceleration of e-commerce due to the pandemic and seeks to address difficulties in digitalisation for retailers, such as differing levels of digital literacy, which were highlighted during the short and sudden transition period towards digitalisation.

CHAPTER 4

RESPONDING TO CRITICAL NEEDS AND EMERGING TRENDS

“

As Singaporeans' needs evolve, we must explore ways to continually rejuvenate and refresh our heartland shops, so that they remain relevant, vibrant and endearing to our community.

”

DESMOND LEE

Minister for National Development (2020–2025)

Importance of Neighbourhood Centres during the COVID-19 Pandemic

The COVID-19 pandemic highlighted the need for local neighbourhoods to function self-sufficiently, by ensuring that each neighbourhood was well-provisioned with a variety of amenities that support activities of daily living. With the implementation of circuit breaker measures, phased restrictions and safe distancing advisories during the pandemic, many Singaporeans needed to commute less and rely instead on remote means for work, education and socialising. During that time, NCs were crucial in meeting the essential needs of residents.

Retail, services and public space provisions within NCs that addressed daily needs mitigated the challenges associated with pandemic-related restrictions in different ways. Retail anchors such as supermarkets provided basic goods and attracted patrons that had spill-over benefits to other retailers. The essential services typically housed in NCs, like pharmacies and medical and dental clinics, allowed residents to access healthcare within their neighbourhoods. Hawker centres and food courts within NCs provided affordable food options for residents when dining out was restricted. With all these services in place, NCs functioned like an essential services hub and an informal touchpoint for residents when mobility was limited.

The presence of green spaces in the NCs, which were complementary to precinct facilities, also provided adequately spaced areas for people to step out of their homes to engage in exercise and outdoor activities. This was crucial at that time, as access to fitness facilities and playgrounds was generally restricted due to safe distancing measures. As such, going out to the NCs to meet daily needs became a means for residents to keep up a healthy lifestyle and alleviate mental health concerns.

Beyond supporting self-sufficiency, NCs contributed to Singapore's community resilience efforts during the pandemic. To support nationwide initiatives to counter the spread of COVID-19, community clubs located near NCs pivoted to help in mask distribution and the national vaccination effort. The Tampines East Community Club, located beside the NC at Blocks 201-201G Tampines Street 21 (Tampines N2 NC), is one such example. The vaccination centre was set up in a well-ventilated public space on the ground floor of the community club. As the space is adjacent to a

surface car park shared with the NC, the NC was able to accommodate the increase in vehicles arriving at the area. The readiness with which public spaces could be repurposed to support the organised and safe roll out of a national priority in the heartlands demonstrated that NCs can function well beyond their initial objectives to serve larger social and public health aims.

Yet, there are concerns that post-pandemic, visits to NCs may decrease as residents return to their usual commuting patterns. Prior to the pandemic, it had already been observed that the proportion of HDB residents who visited heartland shops or NCs at least once a week fell from 63.5% to 50.7% from 2013 to 2018.¹⁶⁰ The HDB, Enterprise Singapore (EnterpriseSG) and the Prime Minister's Office (Strategy Group) embarked on the Heartland Shops Study in 2021, to develop a more holistic understanding of the value of heartland shops for all stakeholders.¹⁶¹ The study engaged more than 2,800 stakeholders, including business owners, residents, workers and merchants' associations, through a series of interviews, surveys and focus group discussions. The findings revealed that most residents perceived heartland shops and NCs to be significant localities in the neighbourhood to serve the community's needs, build inclusiveness, foster vibrancy and create a collective memory in their experience of HDB living.

Following the findings, the HDB and EnterpriseSG reviewed existing programmes and initiatives to identify policies that would help retailers remain future-ready. The HDB has, for example, proposed new strategies such as revising the Price-Quality Method (PQM) tender criteria to provide more emphasis on affordability of goods and contributions towards the local character of commercial clusters, extending the PQM tender option to more HDB shops, making improvements to the Revitalisation of Shops scheme that helps retailers carry out improvement works (refer to Chapter 2), and improving retailers' digitalisation capabilities.¹⁶²

Yet, NCs are not immune to trends, and the challenges that come with change. Some heartland shops are reportedly struggling to keep up with the shift to e-commerce and the continued need to balance profit margins while remaining affordable. Concerted efforts by planning agencies have been necessary to ensure that NCs remain relevant and adaptive to change. In recent years, the HDB and other government agencies have introduced various programmes and initiatives within NCs that have been aimed at enhancing their relevance and vitality as destinations for residents. These include place management efforts to foster a greater sense of community among residents and other users of the NCs, addressing the needs of elderly residents as Singapore's population continues to age, promoting efforts to boost sustainability and environmental outcomes, and leveraging technology to improve revenue for local businesses.

To support the economic viability of NCs, the government also rolled out a series of Community Development Council (CDC) Voucher Schemes that played a pivotal role in sustaining NCs during the pandemic. Beginning with S\$100 per household in 2020, the scheme expanded in subsequent years, providing residents with financial support for purchases made at participating local merchants and hawkers. Businesses in the NCs benefited from guaranteed income through voucher redemptions, while residents gained convenient access to essential goods and services within their neighbourhoods. The initiative created a multiplier effect as money circulated locally, preserving jobs and strengthening community bonds. The introduction of digital vouchers streamlined the process, making it particularly beneficial for elderly and less mobile residents who could shop nearby.¹⁶³

UNDERSTANDING PERSPECTIVES ON HEARTLAND RETAIL: FINDINGS FROM THE HEARTLAND SHOPS STUDY

The Heartland Shops Study was a two-phase study that began in December 2019. Its aim was to study the economic and social value of heartland shops in order to guide policy making. It sought to understand how trends, such as an ageing workforce and the rise of e-commerce, had affected heartland shops. Set in the context of the COVID-19 pandemic, it also looked at the impact of COVID-19 on heartland shops.

The first phase ran until February 2021 and focused on a quantitative analysis of administrative data to glean preliminary insights on retail preferences, as well as vulnerable workers. During the second phase which ran from May 2021 to September 2022, a qualitative analysis was conducted to examine the economic and social value of heartland shops through surveys, interviews, focus group discussions, large engagement sessions and open-call surveys with about 2,800 stakeholders.

Concluding in November 2022, the study found that heartland shops serve as key activity nodes that inject vibrancy into neighbourhoods. About 70% of surveyed residents reported visiting heartland shops at least once a week, and spending about one-third of their monthly expenditure in these areas. Close to 7 out of 10 surveyed residents also agreed that heartland shops provide goods and services at affordable prices.

Residents also acknowledged that town centres, NCs and precinct shops do more than meet their retail needs, they also serve as social spaces for interacting with their neighbours. About 3 out of 4 surveyed residents felt that they interacted with people of different demographics and backgrounds at these amenity centres. Many spoke fondly of heartland shops and the local character that they contribute to their neighbourhoods; in essence, they have become a part of the local culture and heritage of Singapore.

Overview

At the time of the study, there were over **15,000** shops serving the heartlands, spread across town centres, neighbourhood centres and precinct clusters.



The study engaged over **2,800** stakeholders—including residents, business owners, workers and merchants' associations—through surveys, interviews and focus group discussions, over a period of **11** months.



Heartland shops play a significant role in our collective memory of HDB living, through reflecting heritage and amplifying local character.



8 out of 10 residents surveyed agree that heartland shops are part of the culture and heritage of Singapore.



Many residents surveyed spoke fondly of heartland shops that embody and enhance the local character of their neighbourhoods.

Key Measures Implemented to Support Heartland Shops

To better meet residents' needs, the HDB has introduced and continually enhanced the Price-Quality Method tender mechanism to focus more on areas such as affordability, especially for basic goods like groceries as well as food and beverages, and the types of shops and services that residents want, while lowering the focus on price/rent offered by businesses.



25 town centres and neighbourhood centres have been upgraded through the Revitalisation of Shops (ROS) Scheme introduced in 2007; the HDB announced improvements to the ROS Scheme in 2023.



Key Findings

Heartland shops are key activity nodes that inject vibrancy into neighbourhoods.



7 out of 10 residents surveyed visit heartland shops at least once a week; about one-third of their total monthly expenditure is spent at heartland shops.



6 out of 10 residents surveyed would like to see more shops adopt e-payment.



Residents surveyed would like to see more local small businesses and festival promotions in their neighbourhoods.



Heartland shops serve the community and build inclusiveness. These shops provide a variety of goods and services at affordable prices, as well as employment opportunities for Singaporeans. They also serve as social spaces to facilitate interaction among residents.



About **3 out of 4** residents surveyed feel that heartland shops facilitate the interaction of Singaporeans across different demographics and backgrounds.



Close to **7 out of 10** residents surveyed agree that heartland shops provide affordable goods and services that help reduce the cost of living.



Both residents and business owners surveyed support the active curation of trade mix in heartland shop clusters to increase the variety of goods and services.

Some residents mentioned that heartland shops provide jobs for seniors and others who may need or prefer to work near their homes.

Supporting Placemaking Initiatives

The HDB and EnterpriseSG have been working closely with local merchants' associations to upgrade their capabilities and support placemaking initiatives to enhance the vibrancy of the heartland shops.

An example is the inaugural Heartlands Festival 2021, held from Dec 2021 to Feb 2022. This nationwide celebration of the heartlands brought together over **40,000** merchants, hawkers and wet-market stall operators. Following its successful run, the event returned for 2 more editions at the end of 2022 and 2023.

Other examples include the Heartland Enterprise Placemaking Grant (launched at Ministry of Trade and Industry (MTI) COS 2024) and Vibrant Heartlands Programme for Merchants' Associations (launched at (MTI) COS 2025), to encourage ground-up placemaking activations by local stakeholders.



Place Management and Sense of Community

In the past decade, efforts to build a sense of community have been more formally encouraged under the emerging concept of place management, which is in essence a multi-stakeholder approach to creating a sense of belonging through engagement, activities and events. The HDB has actively encouraged this through a few broad approaches—resident-led initiatives, co-creative processes and placemaking in commercial areas. While these place management initiatives are not exclusive to NCs and are typically made available to whole towns, NCs have nevertheless remained beneficiaries of these efforts.

“I always told my team, ‘Do not give me a space, but a place.’”

—Cheong Koon Hean, Chair, Advisory Panel for the Centre for Liveable Cities, and Chief Executive Officer, Housing & Development Board (2010–2020)

Resident-Led Initiatives

In directly engaging with the community for placemaking efforts, the HDB has generally adopted two distinct approaches. The first is to create a pool of funding that residents can use to initiate and organise their own events or activate shared spaces. From 2016 to 2026, S\$2 million has been set aside under the Lively Places Fund to encourage residents and shopkeepers in HDB neighbourhoods to initiate ground-up community activities. The fund is open throughout the year and the funding limit for each selected project was increased to S\$20,000.¹⁶⁴ One example is the 4th edition of the Love Thy Neighbour project, which brought together 81 dedicated ITE College Central students and alumni in Teck Ghee in 2023. Their mission was twofold: to bridge generational gaps while championing environmental sustainability within the neighbourhood. Across a period of two months, the students went door-to-door to share tips on sustainable living, collected recyclables, and conducted a workshop to demonstrate how recyclables can be upcycled. Their efforts culminated in an exciting and action-packed carnival on eco-sustainability, featuring performances, upcycling workshops and game booths at the Ang Mo Kio Town Centre. Attended by some 900 residents, the event fostered a stronger sense of community and sustainability among neighbours.



25. Engagement of residents at the Love Thy Neighbourhood project

Processes of Co-Creation

The second approach is to give residents a say in the rejuvenation of facilities. Under the HDB's Remaking Our Heartland (ROH) programme, existing HDB towns and estates will be renewed to meet the changing needs of the community. The rejuvenation of Bukit Merah Town Centre is an example of an urban renewal done in partnership with the community. Faced with declining vibrancy due to facility relocations and competition from nearby developments, the HDB engaged more than 600 stakeholders from the local community, comprising residents, businesses, visitors, students, persons with disabilities, advisers, and others, on their aspirations for the town centre through various engagement channels. Their feedback was then put together into a design brief for the town centre. Local architects and architectural students were then mobilised to help realise the community's aspirations via a placemaking challenge, conducted in partnership with the Singapore Institute of Architects. Over 60 design submissions were received, and the winning design was chosen by the public through a voting exercise which had more than 2,000 participants.¹⁶⁵

This collaborative approach with the local community, professional body and professionals not only demonstrated the HDB's commitment to community-centric development but also established a new model for creating vibrant public spaces that truly reflect local needs and aspirations.

Placemaking in Commercial Spaces

Beyond engaging with the community through socially driven organisations such as town councils, the People's Association and residents' committees, the HDB has worked on the business front to support placemaking efforts in its commercial centres. Since 2019, the Heartland Enterprise Centre Singapore (HECS) has been working to rejuvenate NCs through concurrent place management initiatives alongside heartland business and workforce transformation. With the support of EnterpriseSG, the Federation of Merchants' Associations Singapore (FMAS) and HECS, some merchants' associations (MAs) have been able to strengthen their placemaking efforts. The first few examples of placemaking through this scheme include the painting of wall murals and organisation of a durian festival by the Ang Mo Kio MA.¹⁶⁶

In November 2021, HECS launched the inaugural Heartlands Festival, an event supported by FMAS and EnterpriseSG to encourage people to rediscover the hawkers, shops and places of interest within Singapore's heartlands, and to reimagine the future of these areas. The event, which lasted until February 2022, comprised walking trails and tours, shopping challenges, lucky draws and partner events to interest and engage the resident and enterprise communities. In addition to attracting people



26. Pop-up engagement with the public at Bukit Merah Town Center

back to the heartlands and simply celebrating the heartlands as places in themselves, the festival helped to increase footfall for retailers by 20% and more than S\$330,000 was spent in the heartlands through the lucky draw submissions.

Following its success, EnterpriseSG launched the Our Heartlands 2025 programme in 2022, to help heartland merchants grow their revenue, boost their operational efficiency and attract more customers into the heartlands. The programme aimed to help heartland merchants stay relevant and competitive. Our Heartlands 2025 focused on three areas: (I) Deepening digital capabilities and upskilling the heartland workforce by increasing revenue streams and improving operational efficiency through the Heartlands Go Digital Programme, strengthening customer engagement and digital marketing skills, as well as improving product display through initiatives such as the Visual Merchandising Programme to enable heartland merchants to attract more customers and improve offline capabilities, (II) upgrading capabilities of heartland trade associations and chambers to amplify and multiply government initiatives in heartland precincts through manpower support and internal digital capability development, and (III) enhancing the liveliness of the heartlands through upgrading of precincts and stores, as well as supporting events such as the Heartlands Festival, which will raise the profile of heartland merchants, and attract new customers to the heartlands.

Social Enterprises

Social enterprises in Singapore have grown in number and public perception in the past decade. Studies found that there was a fivefold increase in public awareness of social enterprises from 2010 to 2016, and a fourfold increase in the number of news articles published related to this topic during the same period.¹⁶⁷ Commercial spaces in the heartlands have been leveraged by social enterprises to further their causes for their beneficiaries. Recent HDB initiatives have also supported social enterprises by directly allocating shops to eligible social enterprises at subsidised rental rates.¹⁶⁸

One example is The Social Space located at Block 333 Kreta Ayer Road, a multi-concept store centred around eco-living and social awareness. The store features fair trade products such as accessories designed by women from marginalised communities in Asia, and a “refillery” for environmentally friendly household products, some of which are outcomes of a collaboration with the Movement for the Intellectually Disabled of Singapore. The store also has an in-house café that offers healthy food

options that are aligned with its overall concept. As a social enterprise, The Social Space trains and employs staff of varied backgrounds including ex-offenders, persons with disabilities, disadvantaged women and at-risk youth, and consciously maintains full-time employment positions for beneficiaries.¹⁶⁹

Aside from formalised initiatives for social enterprises, some SMEs in the heartlands have recognised their proximity to the community to encourage change and build public awareness. For example, Creamier, a popular local ice cream café, partnered with The Food Bank Singapore (FBSG) to co-create a space for The Food Pantry 2.0. Its café space at Block 131 Toa Payoh Lorong 1, which is adjacent to the Toa Payoh View NC, has been designed into two areas—a dedicated café for Creamier, and a pick-and-go section called PIKO.

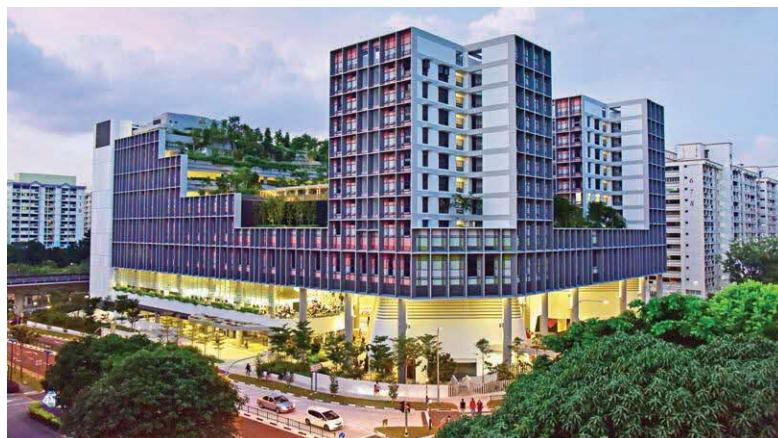
PIKO is routinely stocked with food such as frozen meals, beverages and snacks by The Food Pantry at subsidised prices. It features fully automated smart vending machines that distribute food to those in need, which are available around the clock. The café also functions as a food collection point for residents to donate unopened non-perishable food to the FBSG. As Mr Khoh Wan Chin, the founder of Creamier, rightly put it, Creamier’s partnership with the FBSG could be “the start of a new ecosystem of how businesses [work] with social enterprises to contribute back to the community.”¹⁷⁰

Ageing Population

Perhaps tied to the overall upgrading in 2005 of the built environment in HDB estates, town centres and NCs in the earlier towns such as Ang Mo Kio, Bedok and Clementi underwent improvements to cater to the needs of the elderly. Upgrading works spanned scales to include ensuring barrier-free access throughout the towns and building integrated playgrounds for both the young and the old to enjoy. Such considerations served to combat loneliness among the elderly by enabling them to take outings more easily and offering places for social interaction. Broadly, these efforts addressed immediate concerns on mobility, accessibility and healthy living for senior citizens.¹⁷¹

While these disparate improvement works may have been modest in addressing the simultaneous ageing of the population and the built environment, the HDB has since explored this further by test-bedding a curated, elderly-friendly integrated development. Completed in May 2017, Kampung Admiralty was designed to offer a wide range of social, healthcare, communal and commercial facilities integrated with studio

housing for the elderly. The siting of Kampung Admiralty next to the existing Admiralty Place NC was not a coincidence. With the renovation of Admiralty Place, the two buildings have been carefully designed to be well-connected, and Kampung Admiralty may be seen as an extension of the Admiralty Place NC. The location of this integrated and co-located community hub was led by town planning considerations to build on potential synergies with commercial nodes in Woodlands. With shops and services already well established at Admiralty Place, they could pivot towards addressing the more specific needs of incoming elderly residents.



27. Kampung Admiralty, an integrated community and housing development co-located with Admiralty Place¹⁷²

In considering the retail provisions of both Admiralty Place and Kampung Admiralty as a whole, the development is perhaps indicative of how future NCs may be designed to respond to the needs and demands of the ageing population. Design ideas and planning policies tested at Kampung Admiralty may be further refined and adapted for other NCs, to ensure that they can adapt to meet the needs of the growing older demographic. For instance, creating elderly friendly environments for future NCs may include conditions for shop tenants to have wider aisles for wheelchair users, retail items in smaller portion sizes, and pre-packaged produce.¹⁷³

Aside from being loved by the local community for its well-considered provisions and convivial spaces, Kampung Admiralty has also obtained global recognition including the World Architecture Festival World Building of the Year in 2018, the Urban Land Institute (ULI) Global Award for Excellence in 2021, and the President's Design Award (PDA) Design of the Year 2020. It has been admired by housing authorities in other cities for its approach in addressing the community's needs amid evolving demographics like an ageing population.

Sustainability, Biophilic and Smart Nation

With increasing awareness of the impending impacts of climate change, the benefits of biodiversity and being around nature, as well as digital acceleration, sustainability, biophilia and smart technologies have been gradually woven into HDB towns. Guided by the HDB's Designing for Life Roadmap, broad frameworks such as the HDB Sustainable Development Framework, Smart HDB Town Framework, HDB Biophilic Town Framework and Smart HDB Town Framework have steered the development of new HDB towns and rejuvenation of old ones.

Far from being just declarations of allegiance to these trending concepts, these frameworks were supported by a set of key performance indices for sustainability that were developed internally by the HDB. This was done to ensure that present carbon use could be tracked, and future sustainability targets could be met in the overall scheme of construction and operation of HDB properties. Recognising that sustainability is not just a matter of using advanced technologies for reducing operational carbon footprints, but also an opportunity to incorporate greenery generously into the landscape, the HDB saw the value of green spaces to encourage a more biophilic and active way of living.

Concurrently, the HDB developed the LinkFM app, which tracks the operations of all public facilities under the HDB's purview, including those in NCs. The app aids HDB staff with case management and contractors' deployment, and tracks maintenance and repair works. Sensors were also deployed to detect abnormalities and trigger inspection jobs via LinkFM to the service providers. At the same time, the data collected are also used to embark on preventive maintenance to reduce the probability of assets failing and causing disruptions to daily operations within the HDB's housing and commercial blocks. The data gathered from the app feeds into decision-making processes for the HDB to improve their energy efficiency and achieve carbon emission goals across their properties.

Although these efforts have not been unique to NCs, their timeliness, and perhaps their modest scale and pliable programming, have led to these three concepts—sustainability, biophilia and smart nation—being woven into the new generation NCs (NGNCs).

A NEW GENERATION NEIGHBOURHOOD CENTRE: OASIS TERRACES

The HDB launched a Roadmap to Better Living in HDB Towns in 2011 to guide the upcoming development of well-designed, sustainable and community-centric towns. Notably, the roadmap advocated inclusion of community spaces across town, neighbourhood and precinct scales. This was translated into the development of NGNCs which set aside generous space for the public to use and the community to activate.

In terms of design, NGNCs exemplify 4 “Cs”—Connectivity, Convenience, Community and Consultation:

- They are well-connected to residential areas, with direct links to public transport nodes.
- They offer the convenience of a vast array of commercial facilities and services.
- They are community-centric with ample spaces such as sprawling plazas, which are vital in fostering community bonds and facilitating interaction among residents.
- They reflect consultative engagement with residents to seek their vision of these new centres.¹⁷⁴



28. Oasis Terraces in Punggol

Oasis Terraces is the first of the HDB's NGNCs that brings together a curated combination of facilities and communal spaces tailored to the needs of the residents in the neighbourhood. Officially opened in 2019, Oasis Terraces features amenities such as a polyclinic, 24-hour fitness centre, education and enrichment centres, paediatric and obstetrician-gynaecology clinics, and a community plaza, in addition to the usual retail tenants. The intent of this use-mix was to meet the needs of young families, which were projected to be the dominant resident profile moving

into Punggol.¹⁷⁵ To accommodate the needs of tenants, the building was designed with two wings that could be operated independently. This way, the polyclinic could start its operations a few months before the rest of the NC was completed, to quickly address the healthcare needs of the residents.



29. Oasis Terraces in Punggol

In relation to the HDB's sustainability goals, the architectural design of Oasis Terraces features a porous structure that is optimised for natural ventilation and daylighting. The resultant high-volume space is also effective in providing a convivial environment for outdoor communal activities. In addition, smart features such as motion-sensor lighting, sensor-activated fans and a sensor-triggered irrigation system to tune the distribution of water to the various planting zones were introduced into the design. These features aim to reduce the operational energy use of the building while testing sensors and tracking technology. A rainwater harvesting system for the treatment of surface runoff was also incorporated into the design by means of a zig-zag ramp from the street level to the roof of the building. In so doing, the HDB intended for this novel walkable design to nudge residents into strolling between storeys for a more active lifestyle while ensuring that the rooftop garden was well used by visitors and nourished by the harvesting systems.¹⁷⁶

Together with the five other NGNCs in towns and estates such as Punggol, Canberra, Hougang, Sengkang and Tengah, Oasis Terraces exemplifies the benefits of integrating sustainability, biophilic design and smart technology into everyday spaces.¹⁷⁷ For its unique design, Oasis Terraces has been recognised by the International Federation of Landscape Architects Asia Pacific for Excellence in Landscape Architecture, and won the Silver Award at the MIPIM Asia Awards 2019.¹⁷⁸

To enhance the user experience of the space, the HDB recently launched two complementary mobile applications, ShopperLink and RetailerLink, to extend the NC's retail into the virtual space. The former gives shoppers access to the shop directory and a suite of loyalty benefits to elevate their shopping experience, while the latter is a mobile app which allows shop tenants and owners to access a range of services for commercial premises.



30. Schematic of Community Farmway at Tengah Town

Neighbourhood Centres for Future Car-Lite Towns

In line with the idea of sustainability and the push for greener commutes, new or wider pedestrian footpaths as well as a network of covered linkways and cycling paths have progressively been implemented to provide a more conducive walk-cycle-ride experience. These footpaths and cycling paths also serve to connect residents from their residential blocks to the precinct shops, NCs and town centres, or to transport nodes such as bus stops to bring them to these amenities.

One example of how car-lite ideas may be implemented is the upcoming Tengah new town where planning guidelines support various modes of mobility for the area. Tengah Town will have cycling paths on both sides of the road which will offer residents convenient cycling commutes. There will also be “community farmways”, to provide residents a park-like environment flanked by lush greenery, and connect them to key amenities within the town such as the NCs in Plantation District and Park District. Additionally, the Jurong Region Line will connect the various residential areas within the town and the town centre. The HDB is also studying the development of a “car-free” town centre, where pedestrians and cyclists would be separated from vehicular traffic.¹⁷⁹

Since Tengah is a new town, the HDB had to balance the need to cater to new residents that are gradually moving in with ensuring that the new NCs would be operationally viable. As such, the HDB planned for the NCs in the town to open progressively, alongside the projected timelines of Build-To-Order (BTO) projects in that area. For instance, Plantation Plaza, Tengah’s first neighbourhood centre which opened in June 2024, was timed to be completed at about the same time as 4 BTO precincts within its immediate vicinity.¹⁸¹

31. Plantation District at Tengah Town¹⁸⁰



32. Plantation Plaza NC is located along the Plantation Farmway, a linear social-communal spine linking residents to key facilities and amenities in Tengah Town¹⁸²

The newly opened NC is integrated with the Plantation Village BTO project and also connected to a linear retail street that provides residents sheltered pedestrian access from their homes to the future Tengah Plantation MRT station on the Jurong Region Line, slated to be complete in 2028.^{183,184} By integrating the NC with nearby residential areas and pedestrian thoroughfares, the Plantation Plaza NC will be in an optimal position to provide residents convenient access to their daily needs.

Beyond Tengah, public housing estates in areas such as Bayshore, Ulu Pandan, Mount Pleasant and the former Keppel Club site (in the Greater Southern Waterfront) have also been gazetted as car-lite areas. These areas have been planned upfront with good public transport, walking and

cycling connectivity, and fewer vehicle parking lots to free up more space for amenities and greenery.¹⁸⁵ For example, the future Bayshore estate will be well-served by two MRT stations, a bus-only Transit Priority Corridor and a network of cycling and walking paths that connect residents to amenities within and beyond the estate.



33. View of the street along the future Bayshore estate

Circling back to the idea of decentralisation and polycentricity, the Land Transport Master Plan 2040 advocates for the 20-minute town and 45-minute city idea through various initiatives and programmes, one of which is the Walk-Cycle-Ride vision which prioritises active mobility and public transport for daily commutes. To achieve these time targets, the Land Transport Authority (LTA) and National Parks Board have been accelerating their provision of dedicated cycling paths and park connectors, respectively, and LTA has also been constructing new MRT lines to further support the anticipated increase in commuter demand.

It is important to remember the role of NCs, undergirded by the planning principles of self-sufficiency, hierarchical concept, neighbourhood concept and planning for connectivity, in enabling Singapore to dream of these visions and continue to achieve these goals. The foundations of a well-distributed town centre and NCs within HDB towns make these 20-minute green commutes possible. It is also important to recognise the quiet yet significant concurrent efforts to maintain, upgrade, revitalise and redevelop NCs to ensure their continued relevance in meeting residents' needs.



34. Artist's Impression of Bayshore estate as a car-lite area¹⁸⁶

Summary

The concepts of “neighbourhood” and “neighbourhood centres” existed in some form prior to the establishment of the HDB. While these concepts were still in their nascent stages then, they were rightly recognised for their potential to promote self-sufficiency in towns and support the convenience and accessibility of daily retail needs within the neighbourhood (as seen in Queenstown during the earlier days—refer to Chapter 1). In a period of rapid population growth and desperate need to address basic provisions required for living, development of neighbourhoods and NCs proved to be a quick and organised strategy for resettling people from the overcrowded city centre to the various emerging residential towns.

Since the adoption of this planning concept following the establishment of the HDB in 1960, these core objectives have been extrapolated to influence the urban design and architecture of NCs. With respect to the surrounding context, guidelines and standards developed and implemented by the HDB have helped to create walkable, legible and recognisable NCs. In relation to the town centre and the rest of the town, NCs have also gradually been factored into transport planning to ensure that residents can easily walk, cycle or ride to these amenities. Concurrently with resettlement and employment priorities at the fore, NCs proved to be a multi-pronged approach to facilitate the quick relocation of shopkeepers from heavily congested squatter areas in the city centre to organised and intentionally distributed HDB shop units.

With the basics laid, the 1980s and 1990s gave room for the HDB to explore other characteristics of the NCs. It was perceived then that ownership of shop and stall units could ensure better long-term business planning. While this proved successful in achieving the primary goal of improving business certainty for heartland retailers, it also resulted in downstream challenges for the HDB in controlling the retail mix and price of goods. This led to the review of the planning and management model for NCs.

Although some of the earlier initiatives for NCs have since been discontinued or adapted, these decisions were all crucial to the eventual development and transformation of the HDB and NC model. As the HDB reviewed their role in the development of NCs, it was also an opportunity to crystallise their core mandate to be a social provider for the people.

From the 1990s, as the population matured, the physical infrastructure was also showing signs of wear and a need for upgrading or redevelopment. While this was most evident for the residential blocks in mature HDB towns, shop units in those towns also underwent changes to improve the retail experience for residents.

Today, NCs are critical sites for implementing rejuvenation programmes, placemaking initiatives and responding to concepts of our era—community-centricity, integration of services, sustainability, biophilia and smart technologies. With the first of the NGNCs, Oasis Terraces, unveiled, this new type of NC embodies the HDB's visions for future development while also demonstrating how it has undeniably weathered advancements in technology, as well as addressed the evolving needs and expectations of the population.

POST-SCRIPT

Since its formation in 1960, the HDB has been steadfast in its mission to create vibrant, liveable and sustainable homes and estates for Singaporeans. Key to this is the timely and adequate provision of good retail amenities, with the right mix of trades and convenient access to better serve residents. The HDB strives to plan and build comprehensive retail infrastructure within every HDB town, with HDB neighbourhood centres (NCs) forming the backbone, to meet the residents' needs.

In the past 50 years, the NC has evolved significantly in response to the changing needs of the population, from the low-rise shophouse clusters found in the older HDB towns to the modern shopping complexes in younger towns. The HDB will continue to refine and explore new ideas in the design of our NCs to meet contemporary challenges and residents' changing needs. This includes the adoption of sustainable design features and age-friendly facilities in the new generation NCs—the former to help mitigate the effect of climate change, and the latter to support the needs of an ageing population.

Even as the look and feel of the NCs have changed over time, the core functions of the NC in providing residents with convenient access to affordable goods and services, and a familiar community space, remains unchanged. The NCs played a critical role during the COVID-19 pandemic, allowing residents to easily buy groceries and access essential services amid extended periods of safe distancing restrictions.

Yet, our NCs and heartland shops have faced significant challenges in recent years due to the advent of e-commerce. To better understand these challenges, and also the opportunities presented, the HDB embarked on the Heartland Shops Study in 2021, engaging over 2,800 stakeholders, including residents, business owners, workers and merchant associations (MAs), on the social and economic value of our heartland shops. The study affirmed our conviction that HDB heartland shops are still relevant today. More than just retail spaces serving a functional need, HDB heartland shops are viewed by many Singaporeans as vibrant activity nodes and inclusive community spaces which are integral to HDB estates and deeply woven into their collective memory of HDB living.

To rejuvenate and future proof our NCs and heartland shops, we have introduced various programmes since 2023 such as the expansion of funding support under the Revitalisation of Shops scheme and the extension of our Price-Quality Method tenders to more types of shops, including sites with high heritage values. Alongside Enterprise Singapore, we have also been working closely with local MAs to upgrade their capabilities and support their placemaking initiatives in order to enhance the vibrancy of our heartland shops landscape.

Looking ahead, the HDB will continue to partner our retailers to support the rejuvenation of our older NCs while preserving their unique character. Our new generation NCs will also continue to serve as integrated community spaces where retail, recreation, green spaces and communal facilities converge to enrich everyday living. Inspired by the attachment and fondness that Singaporeans have for heartland shops, I hope that you too share my excitement for the next chapter of the development of our NCs and heartland shops in Singapore.

Tan Meng Dui

Chief Executive Officer,
Housing & Development Board (2021-present)

TIMELINE: MEETING EVOLVING NEEDS THROUGH HEARTLAND RETAIL

- Planning
- Retail Scheme
- Upgrading & Redevelopment
- Architecture
- Rejuvenation
- Placemaking
- Event
- Policy Direction

1941

- Tiong Bahru, first public housing estate with shops completed

1953

- Queenstown, first satellite town initiated

1958

- SIT 1958 Master Plan

1960

- Establishment of the Housing & Development Board (HDB)

1963

- Ring City Plan

1964

- Toa Payoh, HDB's first comprehensively planned town

1970s

- New Town Structural Model

1971

- 1971 Concept Plan

1973

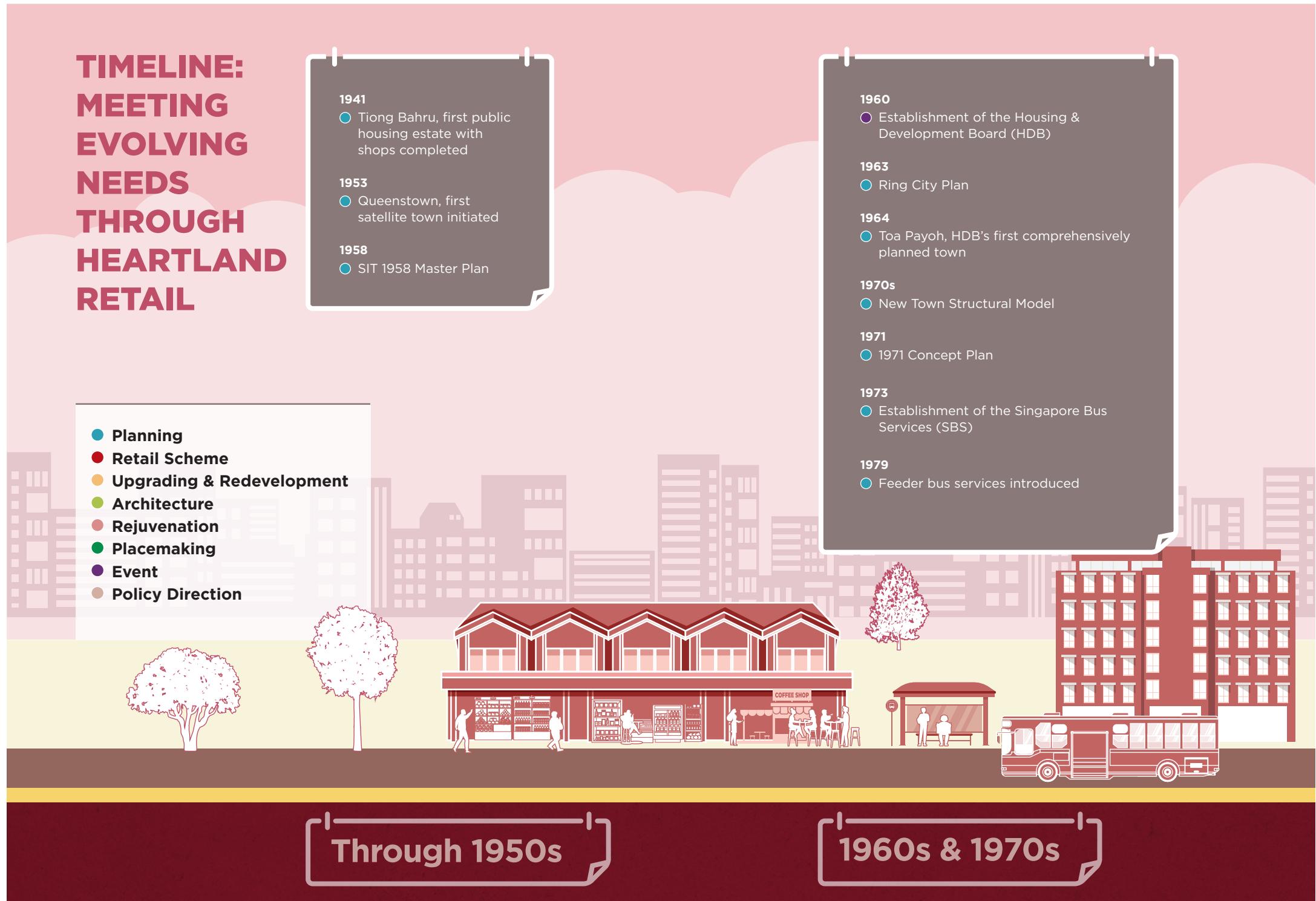
- Establishment of the Singapore Bus Services (SBS)

1979

- Feeder bus services introduced

Through 1950s

1960s & 1970s



1980s
● Precinct concept introduced

1985
● Singapore's first post-independence economic downturn

1986
● Shift from a public tender to a two-bid tender system

1987
● Fixed-term lease introduced for all existing HDB shops
● First stretch of MRT opened

1988
● HDB's new direction to focus on housing provision
● Sale of Shops Scheme launched

1990
● Pilot phase of Main Upgrading Programme (MUP)

1992
● Sale of Tenanted Shops Scheme launched
● First suburban mall opened

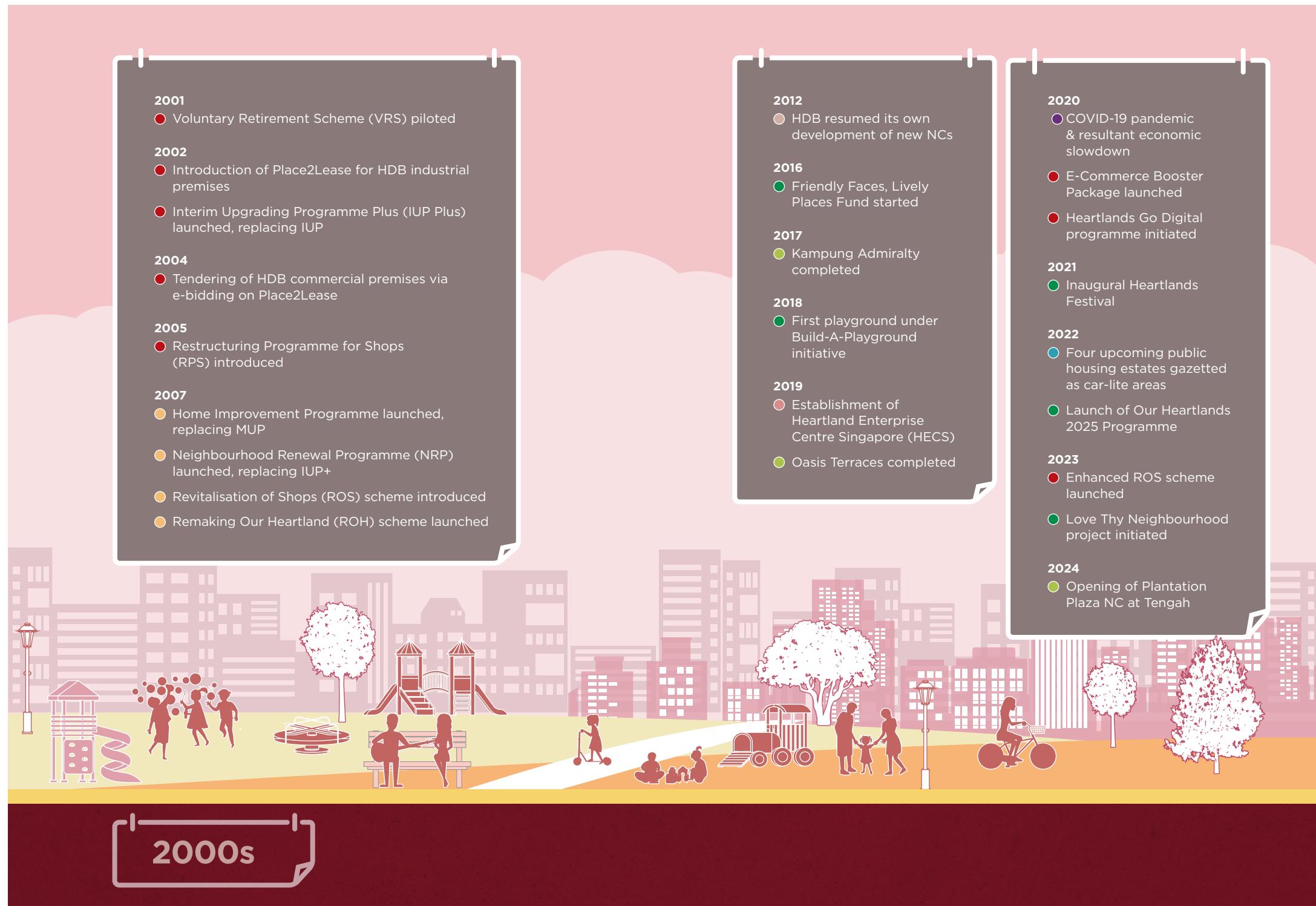
1993
● Interim Upgrading Programme (IUP) introduced

1995
● Selective En bloc Redevelopment Scheme (SERS) rolled out

1996
● Punggol 21 blueprint unveiled

1997-1998
● Asian Financial Crisis

1980s & 1990s



ENDNOTES

- ¹ Prime Minister's Office, "Speech by Deputy Prime Minister and Coordinating Minister for Economic Policies Heng Swee Keat at the Heartlands Festival on 28 November 2021", transcript, <https://www.pmo.gov.sg/Newsroom/DPM-Heng-Swee-Keat-at-the-Heartlands-Festival-2021>
- ² Centre for Liveable Cities, *Building Liveable & Sustainable Cities: A Framework for the Future* (Singapore: Centre for Liveable Cities, 2025).
- ³ Alvin Chua, "Tiong Bahru", *Singapore Infopedia*, <https://www.nlb.gov.sg/main/article-detail?cmsuuid=e3a8eeac-2e62-4ecf-a2e9-21987e9adc68>
- ⁴ Stephanie Ho, "Singapore Improvement Trust", *Singapore Infopedia*, 14 March 2016, https://eresources.nlb.gov.sg/infopedia/articles/SIP_2016-03-14_142655.html
- ⁵ HistorySG, "First Master Plan is Approved", 2014, <https://eresources.nlb.gov.sg/history/events/ef5af33f-bc66-4080-81d4-013564ba3119#10>
- ⁶ Housing & Development Board, *50,000 up: Homes for the People* (Singapore: Housing & Development Board, 1965), 26–35.
- ⁷ Valerie Chew, "History of Urban Planning in Singapore", *Singapore Infopedia*, <https://www.nlb.gov.sg/main/article-detail?cmsuuid=fbc0a0654-cd2b-4638-b1ef-c18ba06344ad>
- ⁸ "Concept Plan links new towns in a ring", *The Straits Times*, 6 September 1980, <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19800906-1.2.77>
- ⁹ Gene Teo, "Roads: Bid to ease the jam", *New Nation*, 14 August 1973, <https://eresources.nlb.gov.sg/newspapers/digitised/article/newnation19730814-1.2.32.1>
- ¹⁰ "Kallang Basin to get another 3,000 flats", *The Straits Times*, 2 August 1973, 14 August 1973, <https://eresources.nlb.gov.sg/newspapers/digitised/article/newnation19730814-1.2.32.1>
- ¹¹ "Bedok New Town centre completed", *The Straits Times*, 13 March 1978.
- ¹² Michael Yeong, "A hive of activity in Woodlands New Town that once faced 'isolation'", *The Straits Times*, 25 May 1975.
- ¹³ HDB, *50,000 up: Homes for the People*, 38–44.
- ¹⁴ Housing & Development Board, *HDB Annual Report 1967* (Singapore: Housing & Development Board, 1967), 21.
- ¹⁵ Housing & Development Board, *HDB Annual Report 1967* (Singapore: Housing & Development Board, 1967), 53.
- ¹⁶ Housing & Development Board, *HDB Annual Report 1969* (Singapore: Housing & Development Board, 1969), cover page.
- ¹⁷ Housing & Development Board, *HDB Annual Report 1977/78* (Singapore: Housing & Development Board, 1978), 48.
- ¹⁸ William Campbell, "Everything a town will need within walking distance", *The Straits Times*, 25 May 1971, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19710525-1.2.91>
- ¹⁹ Housing & Development Board, *HDB Annual Report 1976/77* (Singapore: Housing & Development Board, 1977), 38.
- ²⁰ Cheong Koon Hean, "The Evolution of HDB Towns", in *50 Years of Urban Planning in Singapore*, ed. Heng Chye Kiang (Singapore: World Scientific Publishing Company, 2016), 101–25.
- ²¹ Cheong Koon Hean, "Singapore: Housing a Nation", in *Urban Solutions Issue 1* (Singapore: Centre for Liveable Cities, 2012).
- ²² Tan Poh Hong, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 14 January 2021, transcript, accession number CLC/061/2021/001.
- ²³ Rohanian Saini, "A town centre to call their own", *The Straits Times*, 18 April 1989, <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19890418-1.2.36.1>
- ²⁴ Tan Chui Hua, *Yishun Sembawang: A Heritage Trail* (Singapore: National Heritage Board, 2010).
- ²⁵ Housing & Development Board, *HDB Annual Report 1972* (Singapore: Housing & Development Board, 1972), 40.
- ²⁶ Housing & Development Board, *HDB Annual Report 1979/80* (Singapore: Housing & Development Board, 1980), 27–28.
- ²⁷ HDB, *HDB Annual Report 1979/80*, 27–28.
- ²⁸ Lim Kwan Kwan, "Pitched-Roof Shops in Courtyard", *The Straits Times*, 8 November 1988, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19881108-1.2.26.2>
- ²⁹ Lim Kwan Kwan, "Back to Old-Style Shophouses", *The Straits Times*, 9 July 1988, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19880709-1.2.28.1>
- ³⁰ New Nation, "15 Blocks of Flats for Rural Centres", *New Nation*, 18 October 1976, <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19761018-1.2.18>
- ³¹ Wang Look Fung, "Kampung Concept is Old Hat to HDB", *New Nation*, 13 October 1976, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19761013-1.2.21>
- ³² Yap Soon Hok, "Congestion in Jurong", *The Straits Times*, 28 January 1974, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/hewnation19740128-1.2.27.5.1>
- ³³ Tammie Loke, "Full Range of Bus Services made Available", *The Straits Times*, 21 November 1979, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19791121-1.2.99.7>
- ³⁴ "Better Services by YearEnd", *The Straits Times*, 9 July 1979, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19790709-1.2.118.11>
- ³⁵ Tammie Loke, "Pros Outweigh Cons of Feeder Service Concept", *The Straits Times*, 25 April 1981, <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19810425-1.2.93.6>
- ³⁶ Housing & Development Board, *HDB Annual Report 1975/76* (Singapore: Housing & Development Board, 1976), 33.
- ³⁷ Rav Dhaliwal, "Bus and MRT stations to be linked", *The Straits Times*, 31 October 1984, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19841031-1.2.24.7>
- ³⁸ Housing & Development Board, "Design Through the Decades", 4 December 2024, <https://www.hdb.gov.sg/about-us/design-through-the-decades>
- ³⁹ HDB, *HDB Annual Report 1979/80*, 28.
- ⁴⁰ Ground levels of apartment blocks were intentionally left void for use as communal spaces
- ⁴¹ Tan Poh Hong, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 14 January 2021, transcript, accession number CLC/061/2021/001.
- ⁴² Public housing in Singapore has typically been designed without boundary walls or fences around individual precincts and estates. Housing & Development Board, *HDB Annual Report 1989/90* (Singapore: Housing & Development Board, 1990), 22.
- ⁴³ Kee Lay Cheng, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 11 May 2021, transcript, accession number CLC/061/2021/006.
- ⁴⁴ Colony of Singapore, *Report of the Hawkers Inquiry Commission, 1950* (Singapore: Government Printing Office, 1950).
- ⁴⁵ "Markets of the future", *The Straits Times*, 20 October 1981, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19811020-1.2.2?ST=1&AT=search&k=Wet+market&P=46&QT=wet,market&oref=article>
- ⁴⁶ "First dry market in HDB estate opens next week", *The Straits Times*, 14 August 1985, <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19850814-1.2.20.25?qt=%22dry%20market%22&q=%22dry%20market%22>
- ⁴⁷ "It's thumbs up for HDB's dry market", *The Straits Times*, 8 October 1985, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19851008-1.2.36.1?ST=1&AT=search&k=HDB%20dry%20market&QT=hdb,dry,market&oref=article>
- ⁴⁸ Parliament of Singapore, "Budget, Public Health", 20 December 1967, https://sprs.parl.gov.sg/search/topic?reportid=009_19671220_S0002_T0019

- ⁴⁹ "Hawker stalls opening for Bukit Ho Swee", *The Straits Times*, 26 March 1966.
- ⁵⁰ Docomomo Singapore, "HDB Public Housing 1960–1980: The First Two Decades", 2021.
- ⁵¹ Lim Tin Seng, "Hawkers: From Public Nuisance to National Icons", *Biblioasia*, 2013.
- ⁵² Tan Wang Joo, "2 super hawker centres for the city", *The Straits Times*, 27 August 1971.
- ⁵³ Francis Chin, "Hawker Centres taking shape", *New Nation*, 13 January 1980, <http://eresources.nlb.gov.sg/newnation19800113-1.2.10?ST=1&AT=search&k>New+hawker+centre&P=3&QT=new,hawker,centre&oref=article>
- ⁵⁴ Ibid.
- ⁵⁵ "The last hawkers to be resited", *The Straits Times*, 29 April 1986.
- ⁵⁶ Lee Boon Yang, Parliament of Singapore, "Resettlement of Street Hawkers" Vol. 45, 7 March 1985, https://sprs.parl.gov.sg/search/#/topic?reportid=005_19850307_S0003_T0005
- ⁵⁷ Abby Tan, "Can Singapore Accommodate the Coming Shop Glut?", *The Straits Times*, 11 September 1971, <http://eresources.nlb.gov.sg/newnation19710911-1.2.51.1>.
- ⁵⁸ Fong Chun Wah, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 24 March 2021, transcript, accession number CLC/061/2021/005.
- ⁵⁹ Ibid.
- ⁶⁰ Yahoo News, "Singapore's first air-conditioned wet market set to open", *Yahoo News*, 29 December 2010, <https://sg.news.yahoo.com/singapores-first-air-conditioned-wet-market-set-open-20101228-080000-266.html>
- ⁶¹ Chia Xin Fang, "Grand opening of air-con wet market at Elias Mall", *The 3211 Times*, 6 April 2011.
- ⁶² Ministry of Information, Communications and the Arts, "Speech by Mr Yeo Cheow Tong Minister for Trade and Industry at the Opening of the Lot 1 Shoppers' Mall", National Archives of Singapore, 12 January 1997, transcript, <https://www.nas.gov.sg/archivesonline/speeches/record-details/71ac5e32-115d-11e3-83d5-0050568939ad>
- ⁶³ Housing & Development Board, "Punggol", 3 June 2024, <https://www.hdb.gov.sg/about-us/history/hdb-towns-your-home/punggol>.
- ⁶⁴ Ministry of Information, Communications and the Arts, "Speech by Mr Teo Chee Hearn, Minister for Defence, at Punggol Town Exhibition Cum Punggol North Lantern Festival, 15 September 2007, 6.00 PM", National Archives of Singapore, transcript, <https://www.nas.gov.sg/archivesonline/data/pdfdoc/20070915997.htm>
- ⁶⁵ Urban Redevelopment Authority, *Punggol Planning Area: Planning Report 1998* (Singapore: Urban Redevelopment Authority, 1998).
- ⁶⁶ Victor Loh, "The Big Read: From the Boondocks to Waterfront Town, Punggol Grapples with Growing Pains and Traffic Jams", *Channel News Asia*, 19 November 2018, <https://www.channelnewsasia.com/news/singapore/punggol-transport-woes-continue-unabated-crowded-facilities-10943172>
- ⁶⁷ Parliament of Singapore, "Debate on President's Address", Singapore Parliamentary Records Vol. 52, 16 January 1989, https://sprs.parl.gov.sg/search/#/topic?reportid=021_19890116_S0008_T0019
- ⁶⁸ Parliament of Singapore, "Budget, Ministry of National Development", Singapore Parliamentary Records Vol. 74, 20 May 2002, https://sprs.parl.gov.sg/search/#/topic?reportid=003_20020520_S0002_T0004
- ⁶⁹ National Environment Agency, "Hawker Culture is Singapore's First Inscription on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity", 16 December 2020, <https://www.nea.gov.sg/media/news/news/index/hawker-culture-is-singapore-s-first-inscription-onunesco-s-representative-list-of-the-intangible-cultural-heritage-of-humanity>
- ⁷⁰ Seow Bei Yi, "Hawker centre that moderates food prices officially opens in Bukit Panjang", *The Straits Times*, 6 August 2016.
- ⁷¹ Parliament of Singapore, "Budget, Ministry of National Development", Singapore Parliamentary Records Vol. 50, 16 March 1988, https://sprs.parl.gov.sg/search/#/topic?reportid=008_19880316_S0002_T0004
- ⁷² Jayaram Menon, "Good initial response to HDB commercial land sales", *The Business Times*, 23 September 1989, <https://eresources.nlb.gov.sg/newspapers/digitised/article/biztimes19890923-1.2.2?qt=hdb,%20commercial,%20parcel,%20private,%20sector&q=hdb%20commercial%20parcel%20private%20sector>
- ⁷³ Dominic Nathan, "Now, Orchard Road-style traffic jams in Yishun too", *The Straits Times*, 2 January 1993.
- ⁷⁴ "The Body Shop to move into housing estates", *The Straits Times*, 12 August 1991.
- ⁷⁵ Tan Poh Hong, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 14 January 2021, transcript, accession number CLC/061/2021/001.
- ⁷⁶ Cheong Koon Hean, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 11 March 2021, transcript, accession number CLC/061/2021/004.
- ⁷⁷ "HDB to build 4 new neighbourhood centres", *TODAY*, 6 June 2024.
- ⁷⁸ Janice Loo, "Holland Village", *Singapore Infopedia*, https://eresources.nlb.gov.sg/infopedia/articles/SIP_2022-07-20_105713.html?s=Village%20communities—Singapore
- ⁷⁹ HDB, *HDB Annual Report 1972*, 31-33.
- ⁸⁰ Housing & Development Board, *HDB Annual Report 1976/77* (Singapore: Housing & Development Board, 1976), 49.
- ⁸¹ Tan Poh Hong, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 14 January 2021, transcript, accession number CLC/061/2021/001.
- ⁸² Yap Ching Beng, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 18 January 2021, transcript, accession number CLC/061/2021/002.
- ⁸³ HDB, *HDB Annual Report 1979/80*, 8.
- ⁸⁴ Parliament of Singapore, "Sale of Shops and Changes to Resettlement Policy Affecting Resettled Shopkeepers", Singapore Parliamentary Records Vol. 49, 28 July 1987, https://sprs.parl.gov.sg/search/#/topic?reportid=022_19870728_S0004_T0016
- ⁸⁵ Housing & Development Board, *HDB Annual Report 1987/88* (Singapore: Housing & Development Board, 1988), 76.
- ⁸⁶ "Shop and kiosk rents go down for resettled traders", *The Straits Times*, 25 October 1972, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19721025-1.2.138>
- ⁸⁷ Tay Kim Poh, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 19 January 2021, transcript, accession number CLC/061/2021/003.
- ⁸⁸ "Shopmen team up on highest rents", *The Straits Times*, 11 June 1983.
- ⁸⁹ Tay Kim Poh, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 19 January 2021, transcript, accession number CLC/061/2021/003.
- ⁹⁰ "Rents for shops to be based on market rates", *The Straits Times*, 29 July 1987, <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19870729-1.2.21.9.5>
- ⁹¹ Jeffrey Tsang, "New HDB shophouses to go on sale from next month", *The Straits Times*, 3 March 1988.
- ⁹² Housing & Development Board, *HDB Annual Report 1988/89* (Singapore: Housing & Development Board, 1989), 57.
- ⁹³ Tan Poh Hong, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 14 January 2021, transcript, accession number CLC/061/2021/001.
- ⁹⁴ Jeffrey Tsang, "New HDB shophouses to go on sale from next month", *The Straits Times*, 3 March 1988.
- ⁹⁵ Housing & Development Board, *HDB Annual Report 1993/94* (Singapore: Housing & Development Board, 1994), 43.
- ⁹⁶ Ibid., 14.
- ⁹⁷ Housing & Development Board, *HDB Annual Report 1997/98* (Singapore: Housing & Development Board, 1998), 28.
- ⁹⁸ Housing & Development Board, *HDB Annual Report 1998/99* (Singapore: Housing & Development Board, 1999), 28.

- ¹⁴⁶ Singapore, "Housing and Development (Amendment) Bill", Singapore Parliamentary Records Vol. 64, 23 March 1995. https://sprs.parl.gov.sg/search/#/topic?reportid=014_19950323_S0002_T0003
- ¹⁴⁷ Parliament of Singapore, "Estimates of Expenditure for the Financial Year 1st April, 2001 to 31st March, 2002", Singapore Parliamentary Records Vol. 73, 14 March 2001. https://sprs.parl.gov.sg/search/#/topic?reportid=005_20010314_S0003_T0004
- ¹⁴⁸ Ng Boon Yian, "Heartland hol Ho! Ho!", *TODAY*, 15 March 2001.
- ¹⁴⁹ Housing & Development Board, "Measures", 23 April 2024, <https://www.hdb.gov.sg/business/commercial/probusiness-measures-and-services/measures>
- ¹⁵⁰ Housing & Development Board, "New Site Identified for Selective En bloc Redevelopment Scheme", 3 August 2016, https://www.nas.gov.sg/archivesonline/data/pdfdoc/20160803002/Press%20Release_New%20Site%20Identified%20for%20Selective%20En%20bloc%20Redevelopment%20Scheme.pdf
- ¹⁵¹ Yap Ching Beng, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 18 January 2021, transcript, accession number CLC/061/2021/002.
- ¹⁵² Kenneth Cheng, "Makeover completed for 11 neighbourhood centres", *Today*, 9 April 2017, <https://www.todayonline.com/singapore/over-half-neighbourhood-centres-chosen-upgrading-2011-completed-hdb>
- ¹⁵³ Annabeth Leow, "Upgrading for 14 more neighbourhood centres", *The Straits Times*, 10 April 2017, <https://www.straitstimes.com/singapore/housing/upgrading-for-14-more-neighbourhood-centres>
- ¹⁵⁴ Kenneth Cheng, "Makeover completed for 11 neighbourhood centres".
- ¹⁵⁵ Aw Cheng Wei, "Resource centre for mom-and-pop shops sets ambitious targets aimed at revitalising sales", *The Straits Times*, 5 December 2019, <https://www.straitstimes.com/business/companies-markets/resource-centre-for-mom-and-pop-shops-spells-out-targets-chee-hong-tat>
- ¹⁵⁶ The circuit breaker was the period during the height of the COVID-19 pandemic, during which Singapore implemented its most stringent lockdown measures of the pandemic.
- ¹⁵⁷ Enterprise Singapore, "Enterprise Singapore expands E-Commerce Booster Package", 6 May 2020, https://www.enterprisesg.gov.sg/-/media/esg/files/media-centre/media-releases/2020/may-2020/mr03320_enterprise_singapore_expands_ecommerce_booster_package_2020_05_06.pdf?la=en
- ¹⁵⁸ Enterprise Singapore, "ECommerce Booster Package", <https://www.enterprisesg.gov.sg/industries/type/retail/e-commerce-booster-package>
- ¹⁵⁹ Enterprise Singapore, "Heartland Digitalisation & Revitalisation Committee spearheads Heartlands Go Digital programme to help 20,000 heartland enterprises adopt digital solutions", 8 October 2020, https://www.enterprisesg.gov.sg/-/media/esg/files/media-centre/media-releases/2020/oct-2020/heartlands-go-digital/mr07420_heartlands-go-digital_press-release.pdf?la=en
- ¹⁶⁰ Wong Pei Ting, "HDB shops, markets, eating places losing popularity among residents but supermarkets buck trend, survey finds", *TODAY*, 16 February 2021, <https://www.todayonline.com/singapore/hdb-shops-markets-eating-places-losing-popularity-among-residents-supermarkets-buck-trend>
- ¹⁶¹ Housing & Development Board, "Joint HDB-EnterpriseSG Press Release-Supporting Heartland Shops to Enhance Their Vibrancy and Competitiveness", 19 November 2022, <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/19112022-Supporting-Heartland-Shops-to-Enhance-Their-Vibrancy-and-Competitiveness>
- ¹⁶² Ibid.
- ¹⁶³ Community Development Council, "400,000 Households to Benefit from CDC Vouchers Scheme", Press Release, 12 June 2020, [https://www.cdc.gov.sg/files/Press Releases/final-media-release---launch-of-cdc-vouchers-scheme \(1\).pdf](https://www.cdc.gov.sg/files/Press Releases/final-media-release---launch-of-cdc-vouchers-scheme (1).pdf)
- ¹⁶⁴ Yeo Sam Jo, "New \$500,000 HDB fund to encourage ground-up community activities", *The Straits Times*, 20 May 2016, <https://www.straitstimes.com/singapore/housing/new-500000-hdb-fund-to-encourage-ground-up-community-activities>
- ¹⁶⁵ Housing & Development Board, "HDB Unveils Winning Design of Inaugural Town Centre Placemaking Challenge in Bukit Merah", Press Release, 17 November 2024, <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/Placemaking-Challenge-in-Bukit-Merah>
- ¹⁶⁶ Wendy Wong, "Business Improvement Districts a way forward for precinct wide facelifts", *Channel News Asia*, 28 September 2018.
- ¹⁶⁷ raiSE Singapore, *The State of Social Enterprise in Singapore*, 2017.
- ¹⁶⁸ Housing & Development Board, "Measures", 23 April 2024, <https://www.hdb.gov.sg/business/commercial/probusiness-measures-and-services/measures>
- ¹⁶⁹ Housing & Development Board, *Life Storeys Issue 24 Oct/Nov 2019* (Singapore: Housing & Development Board, 2019), 6-7.
- ¹⁷⁰ Channel News Asia, "Creamier ice-cream cafe to reopen in Toa Payoh with social enterprise twist", *Channel NewsAsia*, 27 September 2019, <https://cnalifestyle.channelnewsasia.com/dining/creamier-cafe-ice-cream-singapore-261141>
- ¹⁷¹ Loh Chee Kong, "Next HDB facelift will cater to elderly", *TODAY*, 25 August 2005, <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/today20050825-1.2.81.5>
- ¹⁷² Housing & Development Board, "Kampung Admiralty and Punggol Town Win Global Awards for Excellence in Land Use", 18 August 2021, <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/18082021-Kampung-Admiralty-and-Punggol-Town-Win-Global-Awards-for-Excellence-in-Land-Use>
- ¹⁷³ Yap Ching Beng, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 18 January 2021, transcript, accession number CLC/061/2021/002.
- ¹⁷⁴ Housing & Development Board, *Home Truly-Building Dreams, Housing Hopes* (Singapore: Housing & Development Board, 2020), 76-79.
- ¹⁷⁵ Cheong Koon Hean, "Interview by CLC", Centre for Liveable Cities, Ministry of National Development, 11 March 2021, transcript, accession number CLC/061/2021/004.
- ¹⁷⁶ Ibid.
- ¹⁷⁷ Housing & Development Board, *HDB Annual Report 2018/19* (Singapore: Housing & Development Board, 2019), 25.
- ¹⁷⁸ Ibid., 17.
- ¹⁷⁹ Janice Heng, "Tengah, the first HDB town since Punggol, to have forest fringe, car-free town centre", *The Straits Times*, 8 September 2016, <https://www.straitstimes.com/singapore/housing/tengah-the-first-hdb-town-since-punggol-to-have-forest-fringe-car-free-town-centre>
- ¹⁸⁰ Housing & Development Board, "Tengah Districts", 12 December 2024, <https://www.hdb.gov.sg/about-us/history/hdb-towns-your-home/tengah/tengah-districts>
- ¹⁸¹ Esther Loi, "Supermarket and foodcourt to open in Tengah's first neighbourhood centre by end of Q2 2024", *The Straits Times*, 9 March 2024.
- ¹⁸² Housing & Development Board, "Tengah Districts".
- ¹⁸³ Isabelle Liew, "First neighbourhood centre in Tengah opens with supermarket, foodcourt", *The Straits Times*, 29 June 2024.
- ¹⁸⁴ Ester Loi, "Tengah to get new bus service, two route extensions after complaints from residents", *The Straits Times*, 11 November 2024.
- ¹⁸⁵ Housing & Development Board, "Four public housing estates zoned as car-lite areas", 5 October 2022, <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/05102055-Four-public-housing-estates-zoned-as-car-lite-areas>
- ¹⁸⁶ Housing & Development Board, "HDB Unveils Masterplan for Bayshore Estate", 17 October 2023, <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/17102023-HDB-Unveils-Masterplan-for-Bayshore-Estate>

BIBLIOGRAPHY

Books, Journals, Conference Proceedings

- Colony of Singapore. *Report of the Hawkers Inquiry Commission, 1950*. Singapore: Government Printing Office, 1950.
- Heng, Chye Kiang. *50 Years of Urban Planning in Singapore*. Singapore: World Scientific Publishing Company, 2016.
- Housing & Development Board. *50,000 up: Homes for the People*. Singapore: Housing & Development Board, 1965.
- Tan, Chui Ha. *Yishun Sembawang: A Heritage Trail*. Singapore: National Heritage Board, 2010.

Government Publications, Singapore Parliamentary Reports

- Centre for Liveable Cities. *Building Liveable & Sustainable Cities: A Framework for the Future*. Singapore: Centre for Liveable Cities, 2025.
- Centre for Liveable Cities. *Urban Solutions Issue 1*. Singapore: Centre for Liveable Cities, 2012.
- _____. Building Liveable & Sustainable Cities: A Framework for the Future. Singapore: Centre for Liveable Cities, 2025.
- Housing & Development Board. *Annual Report 1967*. Singapore: Housing & Development Board, 1967.
- _____. *Annual Report 1969*. Singapore: Housing & Development Board, 1969.
- _____. *Annual Report 1972*. Singapore: Housing & Development Board, 1972.
- _____. *Annual Report 1975/76*. Singapore: Housing & Development Board, 1976.
- _____. *Annual Report 1976/77*. Singapore: Housing & Development Board, 1977.
- _____. *Annual Report 1977/78*. Singapore: Housing & Development Board, 1978.
- _____. *Annual Report 1979/80*. Singapore: Housing & Development Board, 1980.
- _____. *Annual Report 1987/88*. Singapore: Housing & Development Board, 1988.
- _____. *Annual Report 1988/89*. Singapore: Housing & Development Board, 1989.
- _____. *Annual Report 1989/90*. Singapore: Housing & Development Board, 1990.
- _____. *Annual Report 1990/91*. Singapore: Housing & Development Board, 1991.
- _____. *Annual Report 1993/94*. Singapore: Housing & Development Board, 1994.
- _____. *Annual Report 1997/98*. Singapore: Housing & Development Board, 1998.
- _____. *Annual Report 1998/99*. Singapore: Housing & Development Board, 1999.
- _____. *Annual Report 2001/02*. Singapore: Housing & Development Board, 2002.
- _____. *Annual Report 2003/04*. Singapore: Housing & Development Board, 2004.
- _____. *Annual Report 2004/05*. Singapore: Housing & Development Board, 2005.
- _____. *Annual Report 2007/08*. Singapore: Housing & Development Board, 2008.
- _____. *Annual Report 2018/19*. Singapore: Housing & Development Board, 2019.
- _____. *Annual Report 2019/20*. Singapore: Housing & Development Board, 2020.
- _____. *Annual Report 2023/24*. Singapore: Housing & Development Board, 2024.
- _____. *Home Truly-Building Dreams, Housing Hopes*. Singapore: Housing & Development Board, 2020.
- _____. *Life Storeys Issue 24 Oct/Nov 2019*. Singapore: Housing & Development Board, 2019.
- Parliament of Singapore. "Budget, Ministry of National Development". Singapore Parliamentary Records Vol. 50, 16 March 1988. https://sprs.parl.gov.sg/search/#/topic?reportid=008_19880316_S0002_T0004
- _____. "Budget, Ministry of National Development". Singapore Parliamentary Records Vol. 74, 20 May 2002. https://sprs.parl.gov.sg/search/topic?reportid=003_20020520_S0002_T0004

- _____. "Budget, Public Health". Singapore Parliamentary Records Vol. 26, 20 December 1967. https://sprs.parl.gov.sg/search/topic?reportid=009_19671220_S0002_T0019
- _____. "Debate on President's Address". Singapore Parliamentary Records Vol. 52, 16 January 1989. https://sprs.parl.gov.sg/search/topic?reportid=021_19890116_S0008_T0019
- _____. "Estimates of Expenditure for the Financial Year 1st April, 2001 to 31st March, 2002". Singapore Parliamentary Records Vol. 73, 14 March 2001. https://sprs.parl.gov.sg/search/#/topic?reportid=005_20010314_S0003_T0004
- _____. "Housing and Development (Amendment) Bill". Singapore Parliamentary Records Vol. 64, 23 March 1995. https://sprs.parl.gov.sg/search/#/topic?reportid=014_19950323_S0002_T0003
- _____. "Parliamentary Debates, Singapore, Official Report, Tenth Parliament". Singapore Parliamentary Records Vol. 79, 7 March 2005. <https://sprs.parl.gov.sg/search/#/report?sittingdate=07-03-2005>
- _____. "Parliamentary Debates, Singapore, Official Report, Eleventh Parliament". Singapore Parliamentary Records Vol. 82, 3 March 2007. https://sprs.parl.gov.sg/search/#/topic?reportid=004_20070303_S0003_T0003
- _____. "Resettlement of Street Hawkers". Singapore Parliamentary Records Vol. 45, 7 March 1985. https://sprs.parl.gov.sg/search/topic?reportid=005_19850307_S0003_T0005
- _____. "Sale of Shops and Changes to Resettlement Policy Affecting Resettled Shopkeepers". Singapore Parliamentary Records Vol. 49, 28 July 1987. https://sprs.parl.gov.sg/search/#/topic?reportid=022_19870728_S0004_T0016
- Urban Redevelopment Authority. *Punggol Planning Area: Planning Report 1998*. Singapore: Urban Redevelopment Authority, 1998.

Interviews, Speeches, Lectures, Oral Histories, Press Releases

- Cheong Koon Hean. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 11 March 2021. Transcript, accession number CLC/061/2021/004.
- Community Development Council. "400,000 Households to Benefit from CDC Vouchers Scheme". Press Release, 12 June 2020. [https://www.cdc.gov.sg/files/Press%20Releases/final-media-release-launch-of-cdc-vouchers-scheme%20\(1\).pdf](https://www.cdc.gov.sg/files/Press%20Releases/final-media-release-launch-of-cdc-vouchers-scheme%20(1).pdf)
- Enterprise Singapore. "Enterprise Singapore expands E-Commerce Booster Package". Media Release, 6 May 2020. https://www.enterprisessg.gov.sg/-/media/esg/files/media-centre/media-releases/2020/may-2020/mr03320_enterprise_singapore_expands_ecommerce_booster_package_2020_05_06.pdf?la=en
- _____. "Heartlands Digitalisation & Revitalisation Committee spearheads Heartlands Go Digital programme to help 20,000 heartland enterprises adopt digital solutions". Media Release, 8 October 2020. https://www.enterprisessg.gov.sg/-/media/esg/files/media-centre/media-releases/2020/oct-2020/heartlands-go-digital/mr07420_heartlands-go-digital_press-release.pdf?la=en
- Fong Chun Wah. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 24 March 2021. Transcript, accession number CLC/061/2021/005.
- Housing & Development Board. "Four public housing estates zoned as car-lite areas". Press Release, 5 October 2022. <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/05102055-Four-public-housing-estates-zoned-as-car-lite-areas>
- _____. "HDB Unveils Masterplan for Bayshore Estate". Press Release, 17 October 2023. <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/17102023-HDB-Unveils-Masterplan-for-Bayshore-Estate>
- _____. "HDB Unveils Winning Design of Inaugural Town Centre Placemaking Challenge in Bukit Merah". Press Release, 17 November 2024. <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/Placemaking-Challenge-in-Bukit-Merah>

- _____. "Joint HDB-EnterpriseSG Press Release—Supporting Heartland Shops to Enhance Their Vibrancy and Competitiveness". Press Release, 19 November 2022. <https://www.hdb.gov.sg/cs/infoweb/about-us/news-and-publications/press-releases/19112022-Supporting-Heartland-Shops-to-Enhance-Their-Vibrancy-and-Competitiveness>
- _____. "More Help for HDB Shops through Enhanced Revitalisation of Shops (ROS) Scheme". Press Release, 9 May 2016. <https://www.nas.gov.sg/archivesonline/data/pdfdoc/20160509009/Press%20Release%20-%20More%20Help%20for%20HDB%20Shops%20through%20Enhanced%20Revitalisation%20of%20Shops%20Scheme.pdf>
- _____. "New Site Identified for Selective En bloc Redevelopment Scheme". Press Release, 3 August 2016. <https://www.nas.gov.sg/archivesonline/data/pdfdoc/20160803002/Press%20Release%20-%20New%20Site%20Identified%20for%20Selective%20En%20bloc%20Redevelopment%20Scheme.pdf>
- _____. "Public Invited to Submit Recommendations of Budget Meals at Coffee Shops Islandwide". Press Release, 16 January 2024. <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/Public-Invited-to-Submit-Recommendations-of-Budget-Meals-at-HDB-Coffee-Shops-Islandwide>
- Housing & Development Board and Enterprise Singapore. "Supporting Heartland Shops to Enhance Their Vibrancy and Competitiveness". Joint Press Release, 19 November 2022. <https://www.enterprisesg.gov.sg/-/media/esg/files/media-centre/media-releases/2022/november/mr07122-supporting-heartland-shops-to-enhance-their-vibrancy-and-competitiveness.pdf>
- Ministry of Information, Communications and the Arts. "Speech by Mr Yeo Cheow Tong Minister for Trade and Industry at the Opening of the Lot 1 Shoppers' Mall". National Archives of Singapore, 12 January 1997. Transcript. <https://www.nas.gov.sg/archivesonline/speeches/record-details/71ac5e32-115d-11e3-83d5-0050568939ad>
- National Environment Agency. "Hawker Culture is Singapore's First Inscription on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity". Joint Press Release by NEA, NHB and FMAS, 16 December 2020. <https://www.nea.gov.sg/media/news/news/index/hawker-culture-is-singapore-s-first-inscription-on-unesco-s-representative-list-of-the-intangible-cultural-heritage-of-humanity>
- Kee Lay Cheng. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 11 May 2021. Transcript, accession number CLC/061/2021/006.
- _____. "Speech by Mr Teo Chee Hean, Minister for Defence, at Punggol Town Exhibition Cum Punggol North Lantern Festival, 15 September 2007, 6.00 PM". National Archives of Singapore. Transcript. <https://www.nas.gov.sg/archivesonline/data/pdfdoc/20070915997.htm>
- Prime Minister's Office. "Speech by Deputy Prime Minister and Coordinating Minister for Economic Policies Heng Swee Keat at the Heartlands Festival on 28 November 2021". Transcript. <https://www.pmo.gov.sg/Newsroom/DPM-Heng-Swee-Keat-at-the-Heartlands-Festival-2021>
- Tan Poh Hong. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 14 January 2021. Transcript, accession number CLC/061/2021/001.
- Tay Kim Poh. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 19 January 2021. Transcript, accession number CLC/061/2021/003.
- Yap Chin Beng. "Interview by CLC". Centre for Liveable Cities, Ministry of National Development, 18 January 2021. Transcript, accession number CLC/061/2021/002.
- Newspapers, Magazines**
- Au-Yong, Rachel. "Old shops make way for new trends". *The Straits Times*, 27 April 2017. <https://www.straitstimes.com/singapore/old-shops-make-way-for-new-trends>
- Aw, Cheng Wei. "Resource centre for mom-and-pop shops sets ambitious targets aimed at revitalising sales". *The Straits Times*, 5 December 2019. <https://www.straitstimes.com/business/companies-markets/resource-centre-for-mom-and-pop-shops-spells-out-targets-chee-hong-tat>
- Campbell, William. "Everything a town will need within walking distance". *The Straits Times*, 25 May 1971. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19710525-1.2.91>
- Channel News Asia. "Creamier ice-cream cafe to reopen in Toa Payoh with social enterprise twist". *Channel News Asia*, 27 September 2019. <https://cnalifestyle.channelnewsasia.com/dining/creamier-cafe-ice-cream-singapore-261141>
- Cheng, Kenneth. "Makeover completed for 11 neighbourhood centres". *TODAY*, 9 April 2017. <https://www.todayonline.com/singapore/over-half-neighbourhood-centres-chosen-upgrading-2011-completed-hdb>
- Chia, Xin Fang. "Grand opening of air-con wet market at Elias Mall". *The 3211 Times*, 6 April 2011.
- Chin, Francis. "Hawker Centres taking shape". *New Nation*, 13 January 1980. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19800113-1.2.10?ST=1&AT=search&k>New+hawker+centre&P=3&QT=new,hawker,centre&oref=article>
- Dhaliwal, Rav. "Bus and MRT stations to be linked". *The Straits Times*, 31 October 1984. [https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19841031-1.2.24.7](http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19841031-1.2.24.7)
- Heng, Janice. "Tengah, the first HDB town since Punggol, to have forest fringe, car-free town centre". *The Straits Times*, 8 September 2016. <https://www.straitstimes.com/singapore/housing/tengah-the-first-hdb-town-since-punggol-to-have-forest-fringe-car-free-town-centre>
- Ho, Stephanie. "Singapore Improvement Trust". *Singapore Infopedia*. 14 March 2016. https://eresources.nlb.gov.sg/infopedia/articles/SIP_2016-03-14_142655.html
- Iau, Jean. "Great Budget Meal Hunt officially launched to allow public to crowdsource cheap meals". *The Straits Times*, 17 January 2024. <https://www.straitstimes.com/singapore/great-budget-meal-hunt-initiative-officially-launched-to-allow-public-to-crowdsource-cheap-meals>
- Lee, Han Shih. "A new class of properties arriving". *Business Times*, 30 March 1988. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/biztimes19880330-1.2.32.3>
- Leow, Annabeth. "Upgrading for 14 more neighbourhood centres". *The Straits Times*, 10 April 2017. <https://www.straitstimes.com/singapore/housing/upgrading-for-14-more-neighbourhood-centres>
- Liew, Isabelle. "First neighbourhood centre in Tengah opens with supermarket, foodcourt". *The Straits Times*, 29 June 2024. <https://www.straitstimes.com/singapore/housing/first-neighbourhood-centre-in-tengah-opens-with-supermarket-foodcourt>
- Lim, Kwan Kwan. "Back to Old-Style Shophouses". *The Straits Times*, 9 July 1988. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19880709-1.2.28.1>
- _____. "Pitched-Roof Shops in Courtyard". *The Straits Times*, 8 November 1988. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19881108-1.2.26.2>
- Lim, Tin Seng. "Hawkers: From Public Nuisance to National Icons". *Biblioasia*, 2013. <https://biblioasia.nlb.gov.sg/vol-9/issue-3/oct-dec-2013/singapore-hawkers-national-icons/>
- Loh, Chee Kong. "Next HDB facelift will cater to elderly". *TODAY*, 25 August 2005. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/today20050825-1.2.81.5>
- Loh, Victor. "The Big Read: From the Boondocks to Waterfront Town, Punggol Grapples with Growing Pains and Traffic Jams". *Channel News Asia*, 19 November 2018. <https://www.channelnewsasia.com/news/singapore/punggol-transport-woes-continue-unabated-crowded-facilities-10943172>
- _____. "Supermarket and foodcourt to open in Tengah's first neighbourhood centre by end of Q2 2024". *The Straits Times*, 9 March 2024. <https://www.straitstimes.com/singapore/housing/supermarket-and-food-court-to-open-end-q2-2024-in-first-neighbourhood-centre-in-tengah>
- _____. "Tengah to get new bus service, two route extensions after complaints from residents". *The Straits Times*, 11 November 2024. <https://www.straitstimes.com/singapore/tengah-to-get-new-bus-service-route-extensions-from-nov-26-after-complaints-from-residents>
- Loke, Tammie. "Full Range of Bus Services made Available". *The Straits Times*, 21 November 1979. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19791121-1.2.99.7>
- _____. "Pros Outweigh Cons of Feeder Service Concept". *The Straits Times*, 25 April 1981. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19810425-1.2.93.6>
- Loo, Janice. "Holland Village". *Singapore Infopedia*. https://eresources.nlb.gov.sg/infopedia/articles/SIP_2022-07-20_105713.html?s=Village%20communities---Singapore
- Menon, Jayaram. "Good initial response to HDB commercial land sales". *The Business Times*, 23 September 1989. <https://eresources.nlb.gov.sg/newspapers/digitised/article/biztimes19890923-1.2.27qt=hdb,%20commercial,%20parcel,%20private,%20sector&q=hdb%20commercial%20parcel%20private%20sector>
- Nathan, Dominic. "Now, Orchard Road-style traffic jams in Yishun too". *The Straits Times*, 2 January 1993.

- Neo, Chai Chin. "Helping small shops keep up". *TODAY*, 2 July 2009. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/today20090702-2.2.4.4>
- New Nation. "15 Blocks of Flats for Rural Centres". *New Nation*, 18 October 1976. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19761018-1.2.1.8>
- _____. "HDB shops: How they are let out". *New Nation*, 18 August 1978. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/hewnation19780814-1.2.2.5>
- Ng, Ansley. "HDB shops list woes". *TODAY*, 10 June 2005. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/today20050610-2.2.10.5>
- Ng, Boon Yian. "Heartland ho! Ho! Ho!". *TODAY*, 15 March 2001. <https://eresources.nlb.gov.sg/newspapers/digitised/article/today20010315-1.2.2>
- Rohanian, Saini. "A town centre to call their own". *The Straits Times*, 18 April 1989. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19890418-1.2.36.1>
- Seah, Mei Kiang. "Shopkeepers in HDB estates now able to switch trades". *Singapore Monitor*, 24 September 1984. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/singmonitor19840924-1.2.5.10>
- Seow, Bei Yi. "Hawker centre that moderates food prices officially opens in Bukit Panjang". *The Straits Times*, 6 August 2016. <https://www.straitstimes.com/singapore/hawker-centre-that-moderates-food-prices-officially-opens-in-bukit-panjang>
- Subraminiam, Sivam. "More households per shop in new estates". *The Straits Times*, 13 May 1988. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19880513-1.2.26.8>
- Tan, Abby. "Can Singapore Accommodate the Coming Shop Glut?". *The Straits Times*, 11 September 1971. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19710911-1.2.51.1>
- Tan, Cephah. "Trade war looms in new HDB estates". *The Straits Times*, 28 October 1986. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19861028-1.2.41.1>
- Tan, Wang Joo. "2 super hawker centres for the city". *The Straits Times*, 27 August 1971. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19710827-1.2.152>
- Teo, Gene. "Roads: Bid to ease the jam". *New Nation*, 14 Aug 1973. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19730814-1.2.32.1>
- The New Paper. "HDB shops get upgrade". *The New Paper*, 22 May 2016. <https://www.tnp.sg/news/singapore/hdb-shops-get-upgrade>
- The Straits Times. "100 new shops to be sold in first HDB sale". *The Straits Times*, 29 July 1987. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19870729-1.2.6>
- _____. "Bedok New Town centre completed". *The Straits Times*, 13 March 1978. [https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19780313-1.2.34?qt="neighbourhood%20centre"&q="neighbourhood%20centre"](https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19780313-1.2.34?qt=)
- _____. "Better Services by Year-End". *The Straits Times*, 9 July 1979. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19790709-1.2.11.11>
- _____. "Concept Plan links new towns in a ring". *The Straits Times*, 6 September 1980. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19800906-1.2.77>
- _____. "First dry market in HDB estate opens next week". *The Straits Times*, 14 August 1985. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19850814-1.2.20.25?qt=%22dry%20market%22&q=%22dry%20market%22>
- _____. "Hawker stalls opening for Bukit Ho Swee". *The Straits Times*, 26 March 1966. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19660326-1.2.35?qt=%22hawker%20stalls%20opening%20for%20bukit%20ho%20swee%22&q=%22Hawker%20Stalls%20Opening%20For%20Bukit%20Ho%20Swee%22>
- _____. "It's thumbs up for HDB's dry market". *The Straits Times*, 8 October 1985. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19851008-1.2.36.1?ST=1&AT=search&k=HDB%20dry%20market&QT=hdb,dry,market&oref=article>
- _____. "Kallang Basin to get another 3,000 flats". *The Straits Times*, 2 August 1973. [https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19730802-1.2.32?qt="neighbourhood%20centre"&q="neighbourhood%20centre"](https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19730802-1.2.32?qt=)
- _____. "Markets of the future". *The Straits Times*, 20 October 1981. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19811020-1.2.2?ST=1&AT=search&k=Wet+market&P=46&QT=wet,market&oref=article>
- _____. "New HDB tender system soon". *The Straits Times*, 21 March 1986. <https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19860321-1.2.26.13>
- _____. "Rents for shops to be based on market rates". *The Straits Times*, 29 July 1987. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19870729-1.2.21.9.5>
- _____. "Shop and kiosk rents go down for resettled traders". *The Straits Times*, 25 October 1972. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19721025-1.2.138>
- _____. "Shopmen team up on highest rents". *The Straits Times*, 11 June 1983.
- _____. "The Body Shop to move into housing estates". *The Straits Times*, 12 August 1991.
- _____. "The last hawkers to be resited". *The Straits Times*, 29 April 1986. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19860429-1.2.37.1>
- _____. "Upgrading works in common areas of heartland shops to get easier approval under Bill". *The Straits Times*, 19 October 2022.
- _____. "HDB to build 4 new neighbourhood centres". *TODAY*, 6 June 2024. <https://www.todayonline.com/singapore/hdb-build-4-new-neighbourhood-centres>
- _____. "When the going gets a bit too tough". *Today*, 17 June 2005. [https://eresources.nlb.gov.sg/newspapers/digitised/article/today20050617-1.2.11.7?qt=rps,%20sunset&q="RPS"%20"Sunset"\]](https://eresources.nlb.gov.sg/newspapers/digitised/article/today20050617-1.2.11.7?qt=rps,%20sunset&q=)
- Tsang, Jeffrey. "New HDB shophouses to go on sale from next month". *The Straits Times*, 3 March 1988. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/biztimes19880303-1.2.43>
- Wang, Look Fung. "Kampung Concept Is Old Hat to HDB". *New Nation*, 13 October 1976. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19761013-1.2.21>
- Weekend East. "Cleaner stalls after 1992". *Weekend East*, 24 March 1995. <https://eresources.nlb.gov.sg/newspapers/digitised/article/weekendeast19950324-1.2.3.2>
- Wong, Alicia. "Ageing estate to get \$6m facelift". *TODAY*, 15 November 2007. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/today20071115-2.2.8.6>
- Wong, Pei Ting. "HDB shops, markets, eating places losing popularity among residents but supermarkets buck trend". *TODAY*, 16 February 2021. <https://www.todayonline.com/singapore/hdb-shops-markets-eating-places-losing-popularity-among-residents-supermarkets-buck-trend>
- Wong, Wendy. "Business Improvement Districts a way forward for precinct wide facelifts". *Channel News Asia*, 28 September 2018. <https://www.channelnewsasia.com/news/singapore/business-improvement-districts-a-way-forward-for-precinct-wide-10761114>
- Yahoo News. "Singapore's first air-conditioned wet market set to open". *Yahoo News*, 29 December 2010. <https://sg.news.yahoo.com/singapores-first-air-conditioned-wet-market-set-open-20101228-080000-266.html>
- Yap, Soon Hok. "Congestion in Jurong". *The Straits Times*, 28 January 1974. <http://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19740128-1.2.27.5.1>
- Yeo, Sam Jo. "New \$500,000 HDB fund to encourage ground-up community activities". *The Straits Times*, 20 May 2016. <https://www.straitstimes.com/singapore/housing/new-500000-hdb-fund-to-encourage-ground-up-community-activities>
- Yeong, Michael. "A hive of activity in Woodlands New Town that once faced 'isolation'". *The Straits Times*, 25 May 1975. [https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19750525-1.2.51?qt="neighbourhood%20centre"&q="neighbourhood%20centre"](https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19750525-1.2.51?qt=)

Websites

- Chew, Valerie. "History of Urban Planning in Singapore". *Singapore Infopedia*, 8 September 2009. <https://www.nlb.gov.sg/main/article-detail?cmsuuid=fbca0654-cd2b-4638-b1ef-c18ba06344ad>
- Chua, Alvin. "Tiong Bahru". *Singapore Infopedia*. https://eresources.nlb.gov.sg/infopedia/articles/SIP_1700_2010-08-11.html
- Docomomo Singapore. "HDB Public Housing 1960-1980: The First Two Decades". 2021. <https://www.docomomo.sg/happenings/hdb-public-housing-1960-1980-the-first-two-decades>
- Enterprise Singapore. "ECommerce Booster Package". <https://www.enterprisesg.gov.sg/industries/type/retail/e-commerce-booster-package>
- Government Technology Agency. "BudgetMealGoWhere". 30 September 2024. <https://www.gowhere.gov.sg/budgetmeal/>
- HistorySG. "First Master Plan is Approved". 2014. <https://eresources.nlb.gov.sg/history/events/ef5af33f-bc66-4080-81d4-013564ba3119#10>
- Housing & Development Board. "Design Through the Decades". 4 December 2024. <https://www.hdb.gov.sg/about-us/history/design-through-the-decades>
- _____. "Kampung Admiralty and Punggol Town Win Global Awards for Excellence in Land Use". 18 August 2021. <https://www.hdb.gov.sg/about-us/news-and-publications/press-releases/18082021-Kampung-Admiralty-and-Punggol-Town-Win-Global-Awards-for-Excellence-in-Land-Use>
- _____. "Measures". 23 April 2024. <https://www.hdb.gov.sg/business/commercial/probusiness-measures-and-services/measures>
- _____. "Punggol". 3 June 2024. <https://www.hdb.gov.sg/about-us/history/hdb-towns-your-home/punggol>
- _____. "Serangoon North Village". 28 October 2024. <https://www.hdb.gov.sg/residential/where2shop/explore/serangoon/serangoon-north-village>
- _____. "Tengah Districts". 12 December 2024. <https://www.hdb.gov.sg/about-us/history/hdb-towns-your-home/tengah/tengah-districts>
- Loo, Janice. "Holland Village" *Singapore Infopedia*, 20 July 2022. https://eresources.nlb.gov.sg/infopedia/articles/SIP_2022-07-20_105713.html?s=Village%20communities—Singapore
- _____. "Written answer by Ministry of National Development on Revitalisation of Shops (ROS) scheme". 5 February 2024. [https://www.mnd.gov.sg/newsroom/parliament-matters/q-as/view/written-answer-by-ministry-of-national-development-on-revitalisation-of-shops-\(ros\)-scheme-2024](https://www.mnd.gov.sg/newsroom/parliament-matters/q-as/view/written-answer-by-ministry-of-national-development-on-revitalisation-of-shops-(ros)-scheme-2024)

IMAGE CREDITS

(Page numbers indicated below)

Centre for Liveable Cities

xiv, 20, 21, 40, 60

Housing & Development Board

11, 12, 14, 15, 17, 19, 22, 26, 27, 32, 33, 35, 42, 44, 75, 80, 81, 84, 86, 87, 88, 89, 90, 91

National Archives of Singapore

4, 5, 6, 28, 29, 30, 31, 36

Redbean De Pte Ltd

Cover, 82, 83, 87

Urban Redevelopment Authority

8, 9

This page is intentionally left blank.