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URBAN SYSTEMS STUDIES

URBAN REDEVELOPMENT: FROM URBAN SQUALOR TO GLOBAL CITY

CENTRE for LiveableCities SINGAPORE

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Set up in 2008 by the Ministry of National Development and the 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". CLC's work spans four main areas—Research, Capability Development, Knowledge Platforms, and Advisory. Through these activities, CLC hopes to provide urban leaders and practitioners with the knowledge and support needed to make our cities better. 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 CLC.

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Aerial view of Marina Bay. Photo courtesy of Redbean De Pte Ltd.

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FOREWORD

Singapore's city centre today exemplifies the progress of the city-state over a period of fifty years — a global financial district in the Central Business District (CBD); a buzzing entertainment area by the Singapore River; and unique conservation districts in historic enclaves like Chinatown and Kampong Glam. But as recent as half a century ago, downtown Singapore was a very different place.

Many of Singapore's problems in the 1960s emanated from the city centre. The housing shortage was extremely acute then, with three quarters of the population crammed into the small downtown area, and many families squeezed into shared accommodation in decrepit shophouses. Unemployment was also high — at 10% in 1965 — due mainly to the influx of migrants looking for work in Singapore after the war. But there was no readily available space to build new offices in the city to support job creation. Valuable land that could be used for commercial development was instead taken up by run-down shophouses that were essentially housing slums. The existence of rent control removed any incentive for landowners to maintain their properties in good condition.

Urban renewal was an urgent priority. With great resolve, the government started moving people from the city centre to public housing towns which were mostly built on land acquired under the Land Acquisition Act of 1966. With effective public housing programmes and land acquisition tools in place, the government was then able to secure the much needed land to redevelop the city centre. Urban renewal was carried out decisively but carefully, based on action plans formulated with the assistance of experts sent by the United Nations. The entire city centre was divided into 21 precincts. Redevelopment phases were planned systematically and implemented comprehensively through government action, starting from the northern and southern ends of the city centre where land had first become available.

But urban renewal cannot be sustained by public action alone. The government had already recognised at that time, the importance of private sector involvement. The first Sale of Sites was launched in 1967, offering state land to the private sector for development through a public tender process. Land sales conditions were put in place to ensure that these private developments would be implemented in line with national development objectives. The Sale of Sites programme proved to be popular. Its success has made it a key tool for urban redevelopment in Singapore up till the present day.

Through careful planning and decisive action by the government, as well as strong participation from the private sector, the city centre had been transformed by the early 1980s, with most of the basic physical infrastructure completed. But the story did not end there. The government then went on to prepare for the extension of the financial district by reclaiming and developing the Marina Bay area. It also enhanced the distinctiveness of the city with a comprehensive urban conservation programme for specific historic districts that were rich in culture. Since the 1990s, the government had begun encouraging community participation in the urban-planning process, starting with the public consultation exercises during the preparation of the Development Guide Plans for Singapore.

Urban Redevelopment: From Urban Squalor to Global City is a study of the transformation of Singapore's city centre within the last five decades. Drawing from past research and new interviews with our urban pioneers, it highlights some of the key challenges experienced and lessons learnt in this journey. We hope you will find Singapore's story both informative and inspiring.

Peter Ho
Chairman,
Urban Redevelopment Authority

PREFACE

The Centre for Liveable Cities' (CLC) research in urban systems tries to unpack the systematic 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 the CLC has identified under the CLC Liveability Framework, attempting to answer two key questions: how Singapore has transformed itself into a highly liveable city within the last five decades, and how Singapore can build on its urban development experience to create knowledge and urban solutions for current and future challenges relevant to Singapore and other cities through applied research. *Urban Redevelopment: From Urban Squalor to Global City* is the latest publication from the Urban Systems Studies (USS) series.

The research process involves close and rigorous engagement of the CLC with our stakeholder agencies, and oral history interviews with Singapore's urban pioneers and leaders to gain insights into development processes and distil tacit knowledge that have been gleaned from planning and implementation, as well as governance of Singapore. As a body of knowledge, the Urban Systems Studies, which cover aspects such as water, transport, housing, industrial infrastructure and sustainable environment, reveal not only the visible outcomes of Singapore's development, but the complex support structures of our urban achievements.

CLC would like to thank the Urban Redevelopment Authority and all those who have contributed their knowledge, expertise and time to make this publication possible. I wish you an enjoyable read.

Khoo Teng Chye
Executive Director
Centre for Liveable Cities

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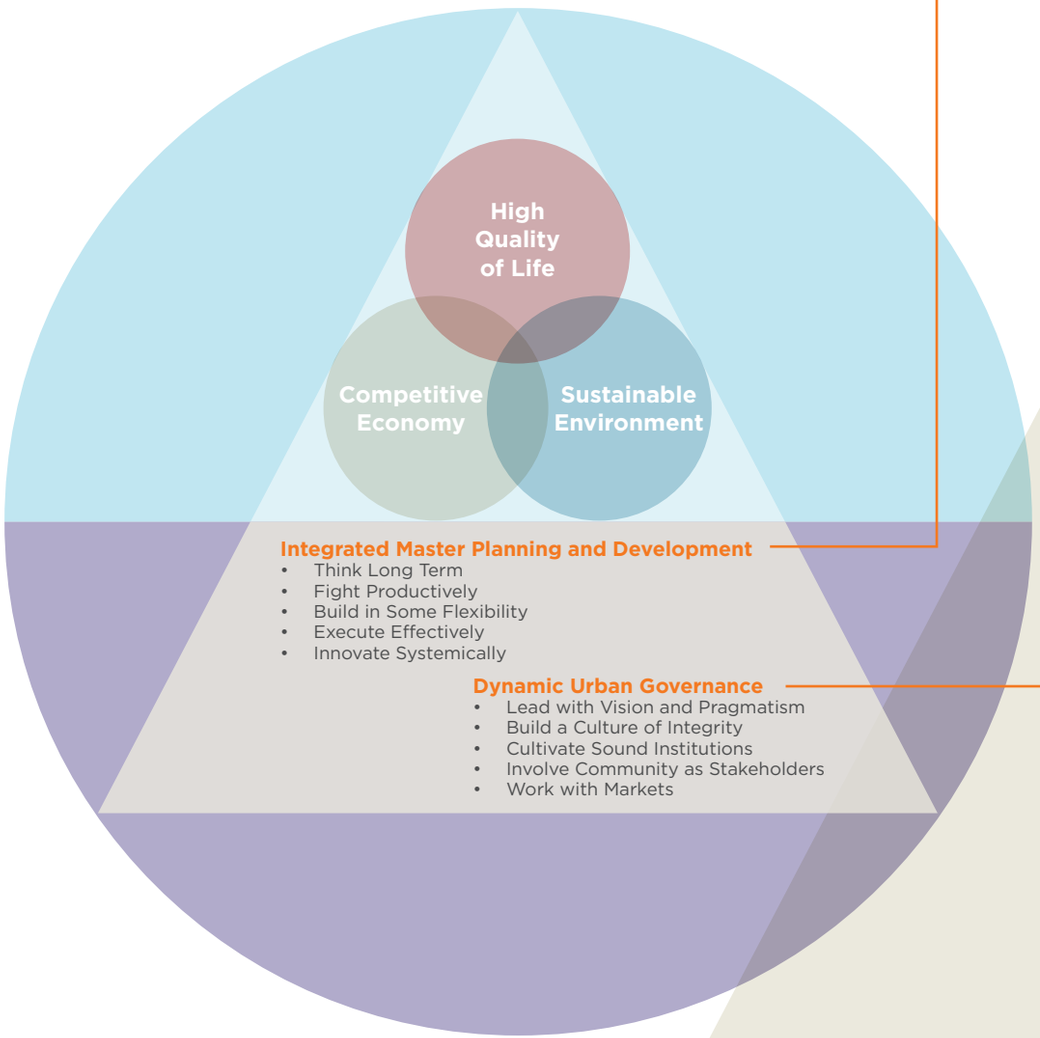
Remy Guo, the writer, would like to extend special thanks to Nicole Chew, Cheong Kay Teck, and his other CLC colleagues. He would also like to thank Prof Lily Kong and Louisa-May Khoo for their advice, Alvin Pang for his editorial inputs, as well as Urban Redevelopment Authority colleagues for their cooperation.

THE CLC LIVEABILITY FRAMEWORK

The general principles under Integrated Master Planning and Development and Dynamic Urban Governance are reflected in themes found in *Urban Redevelopment: From Urban Squalor to Global City*.



Integrated Master Planning and Development

Think Long Term

Urban redevelopment requires forward thinking and planning, and was initiated in tandem with formulating a comprehensive master plan framework for Singapore (see Comprehensive Planning Framework for Urban Renewal). Similarly, the development of Marina Bay was the result of several decades of planning and infrastructural investment before the need and opportunity for developments to be implemented finally surfaced.

(see Development of Marina Bay, p. 89)

Executive Effectively

The redevelopment of Precinct N1 and S1 to the north and south of the Central Area respectively demonstrates how the government effectively translated plans into action. These first efforts in urban renewal were made within a couple of decades and realised almost entirely through public action.

(see Precinct Redevelopment — Creating Room for Urban Renewal, p. 21)

Dynamic Urban Governance

Lead with Vision and Pragmatism

The story of conservation in Singapore exemplifies how the URA set out to achieve its conservation objectives of enhancing a sense of identity in the city, while at the same time balancing competing development needs by planning for development intensification in appropriate areas

(see Formulating a Conservation Framework, p. 69)

Involve the Community as Stakeholders

With an increasingly educated and active citizenry, public engagement is becoming a norm in Singapore's planning and redevelopment process. URA planners consulted with different communities when preparing for the Development Guide Plans of the 1990s and for the 2001 Concept Plan — the first time the public had been involved at the concept planning stage.

(see From Hardware to *Heartware*, p. 95)

Work with Markets

The Sale of Sites programme shows how the government works with the private sector using transparent rules and concrete incentives on one hand, and applying a softer approach of cultivating trust on the other.

(see Sale of Sites programme, p. 51)

OVERVIEW

> Change is on every side. Jackhammers bludgeon ears and concrete. Multi-storey monoliths reach skyward. In the alley beside them, Sikh watchmen play cards on their charpoys.[1] Change will continue. Some features of Singapore will disappear. Some should disappear, because they reflect low living standards and poor conditions. But the distinctive atmosphere of Singapore will remain, unique and fatally attractive."[2]

United Nations Urban renewal and development project, Part Four Report — The Central Area

The redevelopment of Singapore's dense Central Area is often held up as one of the most visible manifestations of the city-state's success. Plagued by acute overcrowding, poor sanitation and pollution up till the 1960s, the Central Area is today dominated by gleaming skyscrapers alongside conserved historic districts. This study focuses on the redevelopment of the Central Area from the early years of independence. It will examine the decision-making process, legislative and policy tools, as well as planning and development strategies.

Urban redevelopment is not only about the physical rebuilding of a city. It involves a wide range of socio-economic elements vital to the overall life of a metropolis. Singapore's urban redevelopment process illustrates how social, economic, and environmental goals can be achieved within the constraints of a land-scarce, island-city-state. The government addressed social needs by providing extensive public housing and alternative accommodation, particularly in the early years when redevelopment was taking place rapidly; it also encouraged private sector involvement in urban development to ensure efficient and economically sustainable growth. This unique approach to urban development has required the government to play an active role in balancing priorities and managing trade-offs when re-allocating land use within the city.

Urban redevelopment in Singapore has evolved over time: extensive state intervention in the early years has given way to an increasingly market-oriented approach in recent decades. Based on this historical context and its inherent trajectory, the current and future challenges of urban redevelopment in Singapore will be discussed in the chapters that follow, with particular focus on the Central Area.

CHAPTER 1

LAYING THE FOUNDATIONS FOR CHANGE

> Shops, residences, and factories are huddled together with patches of undeveloped land where the owners are waiting for unearned incremental values. No provision is made for road improvements, open spaces or public buildings or amenities, the land for which has to be purchased by the public later at enormous cost, while in the meantime a generation has lived and grown under conditions which are detrimental to health and morals."[4]

Housing and Development Board (HDB) 1960 Annual Report

A CHAOTIC AND UNWIELDLY MEGALOPOLIS[3] — THE COLONIAL LEGACY

Observing with displeasure the disorderly urban development that followed the founding of the settlement of Singapore in 1819, Sir Thomas Stamford Raffles established a committee in 1822 to prepare the first town plan. Known as the Jackson Plan, it outlined the development of a commercial centre on the south bank of the Singapore River. This swampy area was drained and filled to form the city's centre of commerce, which it remains to this day. The Plan also marked out separate areas in Singapore town to be allocated for the colonial administration and ethnic quarters for the Chinese, Malay and Indian communities, spread out along the coastline on a grid layout adapted to the terrain and bisected by the Singapore River. These areas, defined by Raffles's broad vision, made up the original Central Area of Singapore, providing the framework for urban development over the next century.

Singapore's phenomenal success as a trading port city, however, soon led to a spiralling population growth which eroded urban living conditions. The population rose from 10,683 in 1827 to more than 200,000 by 1901. Slums and insanitary conditions developed, impairing public health; a fifth of the population was described as "permanently on the sick."[5]

In 1927, the Singapore Improvement Trust (SIT) was set up to address the problem of urban slums. Although entrusted with the responsibility of providing public housing, the SIT had a paltry budget of $8 million in local currency from 1939 to 1942. It also had limited statutory powers. The SIT could do little to improve housing conditions, and the housing shortage continued to worsen.

The outbreak of World War II further aggravated the housing problem, given the destruction of building stock and the post-war population boom. In 1947, a Housing Committee was formed to look into the problems; it recommended that the SIT continue to serve as the planning and housing authority.[6] Although SIT's budget was expanded to S$31 million for three years, it only catered for the housing of 35,700 people — a fraction of the 400,000 people who needed to be rehoused, according to the 1947 Housing Committee's report. A lack of available land for development further hindered efforts to implement improvement plans.[7,8] Overstretched in its planning and housing responsibilities, and limited by financial and land resources, the SIT achieved little in its 32 years of existence.

Upper Pickering Street in 1955.
Singapore Improvement Trust (SIT) flats on the right and old shophouses on the left.
Image courtesy of ABN AMRO Bank, Art & History Department, Amsterdam.

1959 SELF-GOVERNANCE — A COMMITMENT TO THE PEOPLE

> *" The top priority when the government came into power was housing the population and building up a manufacturing sector to create employment... at the political level, it was clear that unless you solve the housing problem, you are not going to be able to solve many other problems..."*[9]
>
> S. Dhanabalan, former Minister for National Development

Self-governance in 1959 marked a turning point in Singapore's urban development. High on the priority list for the newly elected People's Action Party (PAP) government was solving the housing crisis, described as "one of the gravest and most pressing problems facing the Government of Singapore"[10] at the time.

The housing shortage also had to be resolved before any further urban redevelopment could take place, since housing demand would only intensify as redevelopment programmes displaced affected households. The new government's commitment to improving the people's living environment proved to be a powerful catalyst for urban change.

ACTION-ORIENTED AGENCIES FOR URBAN DEVELOPMENT

First, the new government took steps to improve organisational efficiency. Within a few weeks of coming into power, the PAP government consolidated various departments of the British-led City Council into government ministries, creating a centralised, single-tier government. In 1960, the SIT was dissolved, and its planning and public housing functions taken over by two new authorities: respectively, the Planning Department (PD) and the Housing and Development Board (HDB). These task-oriented agencies would become fundamental to Singapore's urban development, helping to translate government policies into effective implementation.

In particular, the HDB was able to decisively address Singapore's housing shortage within five years of its establishment (see Breaking the Back of the Housing Shortage). Only when this pressing issue was resolved from 1966 onwards, did the government begin to embark on urban renewal initiatives.

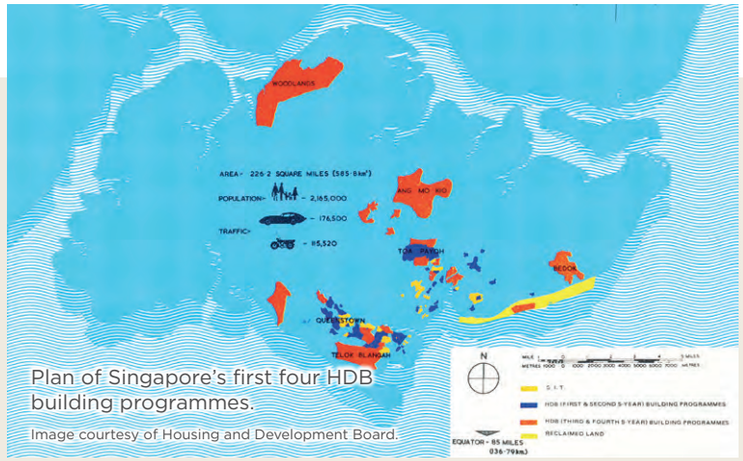
Citing these agencies as examples, Lee Kuan Yew, the founding Prime Minister of Singapore, later highlighted the importance of efficient and consistent administration, carried out by appropriate institutions, as one of the critical success factors for Singapore.[11]

BREAKING THE BACK OF THE HOUSING SHORTAGE

Established in 1960, the HDB sought, in its first five-year building programme, to build as many low-cost housing units as possible. To minimise transport costs for residents, public housing was initially concentrated in areas within a five-mile radius from the city centre, in locations such as Tiong Bahru, Alexandra and Toa Payoh.

The HDB differed from its predecessor, the SIT, in a few important ways. The new PAP government, determined to fulfil its commitment to the people to improve housing conditions, allocated funds of S$230 million for HDB's first five-year building programme — far more than SIT had ever received. The HDB was also significantly more streamlined in organisation. Critical departments such as the Building Department, Land and Resettlement, and Estates reported directly to the HDB's Chief Executive Officer (CEO) and Chairman, instead of to various committees, as with the SIT, allowing for improved efficiency in decision-making.[12] Proactive measures to enhance Singapore's building industry, such as encouraging open competition

Aerial view of Toa Payoh in 1967.
Image courtesy of Ministry of Culture Collection, National Archives of Singapore.



Plan of Singapore's first four HDB building programmes.
Image courtesy of Housing and Development Board.

for the manufacture of hollow bricks, allowed the HDB to construct an average of more than 10,000 units per year during its first five years. In contrast, the SIT had determined that the maximum units per year that could be accommodated by the local industry without substantial price increase was only 6,000.[13]

The HDB also adopted a pragmatic approach to housing the nation, as highlighted by Alan Choe, then a young architect-planner in HDB who led the Urban Renewal Department in HDB and went on to become the first General Manager of the Urban Redevelopment Authority (URA):

> *" When it [the government] went into public housing, firstly they are [were] prepared to accept the fact that they [did] not want the planners or architects or the citizens to think that from public housing, overnight it [had] elevated to a standard that [was] too high for them to afford, or too expensive for the government to [be able to] afford to house everybody. So they [were] prepared to go into that by building the first generation of HDB flats... a lot of what is known as one-room apartments."* [14]

From mid-1960 to mid-1965, the HDB completed 54,430 units, exceeding the target of 51,031 units from its first five-year building programme. SIT, in contrast, constructed only 23,019 units from 1927 to 1959.

Applicants for low-cost HDB flats could be accommodated within a week,[15] which made it much easier to resettle residents affected by urban renewal projects. Reflecting a new-found confidence, the 1965 HDB Annual Report proclaimed that Singapore was now in "a position to tackle the twin problems of urban renewal and the provision of housing to keep pace with the rapid rate of population growth."[16]

PUBLIC CONTROL AND OWNERSHIP OF LAND: LEGISLATIVE TOOLS

> *"When we were confronted with an enormous problem of bad housing, no development, overcrowding, we decided that unless drastic measures were taken to break the law, break the rules, we would never solve it. We therefore took overriding powers to acquire land at low cost, which was in breach of one of the fundamentals of British constitutional law — the sanctity of property. But that had to be overcome, because the sanctity of the society seeking to preserve itself was greater. So we acquired at sub-economic rates."*[17]
>
> Lee Kuan Yew, founding Prime Minister

In the early years of Singapore's independence, fragmented land ownership made it almost impossible to redevelop the city area in a comprehensive manner. To address this, the government adopted sweeping legislative measures. The Land Acquisition Act (1966) introduced several elements to facilitate urban redevelopment:

i. **The rate of compensation for the acquired land "should not be higher than what the land would have been worth had the government not carried out development generally in the area."**[18] This ensured that the state was able to acquire land for redevelopment purposes at prices which were sustainable for public coffers.

ii. **The landowner had no means to challenge the government's right to acquire his land,** but could only appeal to the Appeals Board (Land Acquisition) over the compensation amount offered. This allowed developments to proceed with virtually no legal resistance.

iii. **The concept of land acquisition by the government for "public purpose" was introduced.** Described as "socialist legislation",[19] this broadened the purpose of the Act, which in the original Land Acquisition Ordinance of 1955 was limited largely to infrastructural purposes. The term "public purpose" allowed the government to acquire land for uses ranging from public housing to private, commercial developments through the Government Land Sales (GLS) mechanism, which in turn became a means to drive economic growth for wider public benefit.

The Land Acquisition Act (1966) appears high-handed by today's standards, but it was indispensable in bringing about urban development in the early years. The Act allowed the government to amass highly fragmented, prime urban land into more efficient parcels, redistributing them towards more economic uses and larger, more comprehensive development. From a social perspective, land could now be allocated towards public development to house those displaced by urban renewal. Extensive public ownership and control of land resources, enabled by this powerful Act, were fundamental to the government's ability to proactively balance competing needs in urban redevelopment.

Development Charge

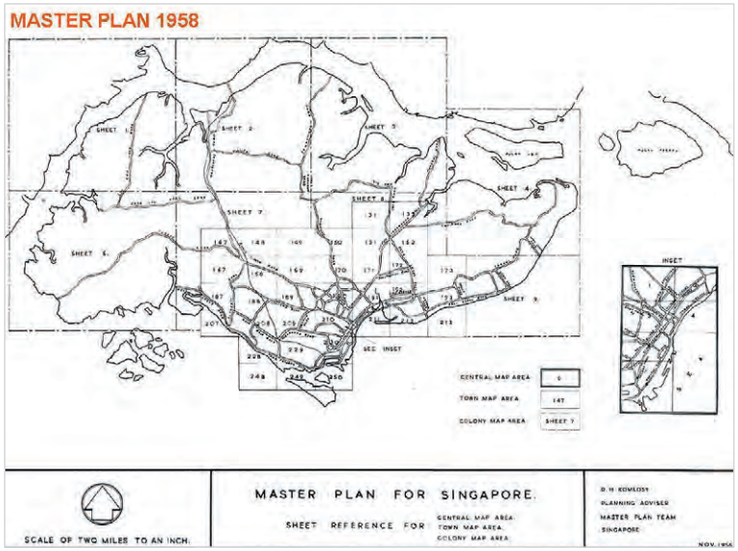
Another key urban development policy was the development charge system, introduced in a 1964 Planning Bill amendment. Developers benefiting from the granting of development permission would have to pay a development charge to the state,[20] to ensure that "the increases in value of land brought about by community development and not through the efforts of the landowner" would accrue to public coffers. This revenue would contribute towards the financial resources needed for public infrastructure and development, in turn benefiting the economy and also the growing private sector in due course.

COMPREHENSIVE PLANNING FRAMEWORK FOR URBAN RENEWAL

Having adopted resettlement and land acquisition strategies, the government also saw the need for an effective planning framework to guide redevelopment, given the inadequacies of the planning system it had inherited from the colonial administration.

The 1958 Master Plan

Singapore's first statutory master plan, approved in 1958, was a form of blueprint planning and was commonly regarded then as a highly restrictive "instrument of control".[21] The 1958 Master Plan controlled development by defining a series of concentric zones around the Central Area, with the innermost ring known as the "town area" delimited by a green belt to prevent urban sprawl, followed by an outer ring known as the "rural area." Population growth assumptions were modest and provided for a population of two million by 1972 — a figure that was reached two years early in 1970. Faced with a burgeoning population, the government recognised that the conservative 1958 Master Plan had to be replaced with a new planning approach that could accommodate the urban growth and expansion Singapore needed.



1958 Master Plan.

Image courtesy of Urban Redevelopment Authority.

Resource Limitations

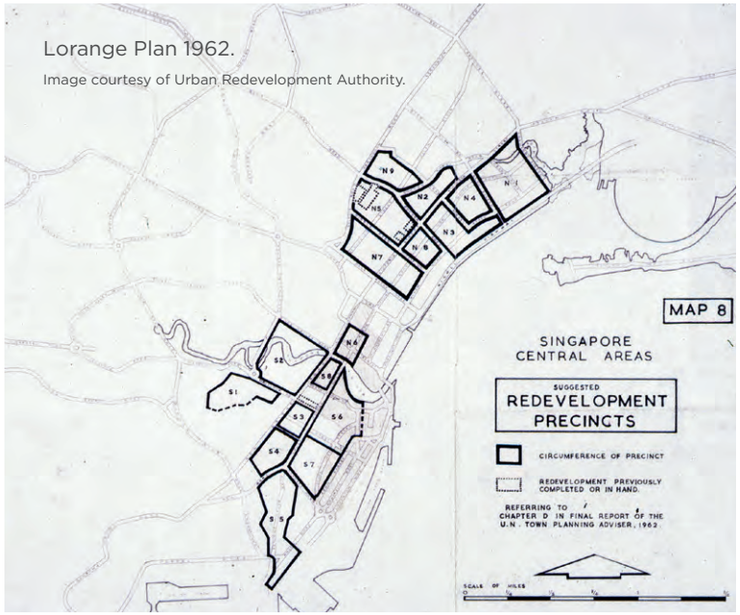
Master Plan 1958: Central Area Plan.

Image courtesy of Urban Redevelopment Authority.

The Planning Department (PD) at the time was severely under-staffed and lacked the resources to formulate a new planning framework. Most of the planning professionals in SIT were expatriates who had departed Singapore following self-governance, leaving the PD with only three local planners, of whom only two had experience in development control with the former SIT.[22]

UN Technical Assistance

Faced with severe limitations and urgent development needs, the government requested technical assistance from the United Nations (UN). UN assistance was delivered in three stages. In the first instance, town planning expert Erik Lorange was assigned to conduct a six-month study in 1962. He subsequently drafted a framework of long-term redevelopment programmes, alongside short-term action plans on the precinct scale.



Lorange Plan 1962.

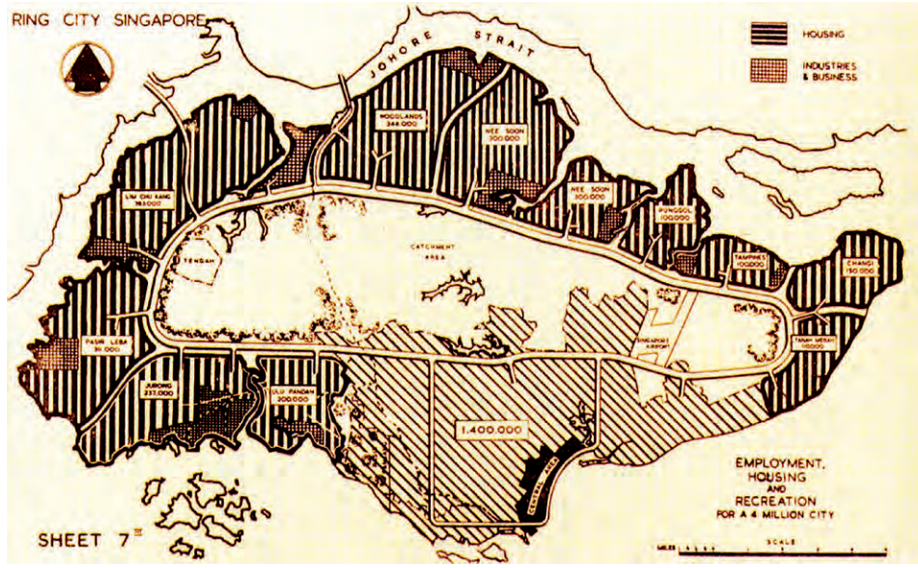
Image courtesy of Urban Redevelopment Authority.

Lorange's recommendations laid out a strategy for systematic redevelopment of the Central Area. He divided the entire area into 21 precincts, with precinct being accorded development priority based on availability of land, possibility of clearance, stage of deterioration, demand for land for development, and potential of the site as a catalyst for economic development. Lorange outlined a two-pronged approach, beginning with the northern and southern ends of the Central Area and moving towards the heavily congested heart of the city until redevelopment was complete.

An Action-Oriented Approach to Urban Renewal

As a follow up to his visit, Lorange recommended the appointment of an urban renewal team. This led to a 1963 study by a UN team of three experts: Otto Koenigsberger, Charles Abrams and Susumu Kobe, commonly referred to as the "KAK team".

The team recognised that Singapore could not afford to wait for a new master plan (in place of the 1958 Master Plan) to guide its future development. They advocated a strategy of project-based action programmes, spearheaded by agencies and coordinated by an overall physical guiding concept "to ensure that many separately planned action programmes grow into a coherent system."[23] The Ring City Concept was adopted; it envisaged the development of a ring of self-contained but connected settlements throughout Singapore, catering to a population of four million. This concept came to deeply influence subsequent plans and fundamentally shape the development of Singapore.



Koenigsberger Ring City Plan 1963.

Image courtesy of Urban Redevelopment Authority.

Vital to the "action programme" approach was an urban renewal programme for the Central Area, which the team described as a "movement from negative and restrictive planning to actual implementation."[24] In particular, the HDB, as "the largest investor in urban property", was to take the lead in this action-oriented approach to urban redevelopment.

The report also articulated the relationship between the public and private sectors in redevelopment. This would redefine how urban development was to be carried out in Singapore:

> *"It is no longer traditional private enterprise plus some public works that are depended upon to create the environment, but the public authority in a more active and more inclusive role. Public authority moves into the position not only of creating some of the parts of the new environment but also of employing and facilitating private enterprise in participating in the environment's creation and in fulfilling the new and challenging requirements of urban life."*[25]

The team detailed an urban renewal strategy for the Central Area based on Lorange's recommendations, espousing "a series of 'action programmes' driven by an alliance of public and private initiative and investment"[26] to eventually rebuild the city in a staged, precinct-by-precinct approach. These recommendations were soon put into action by the government, beginning with the redevelopment of the northern and southern-most precincts in 1966 (see Chapter 2 — Initiating Urban Renewal through Public Sector Action).

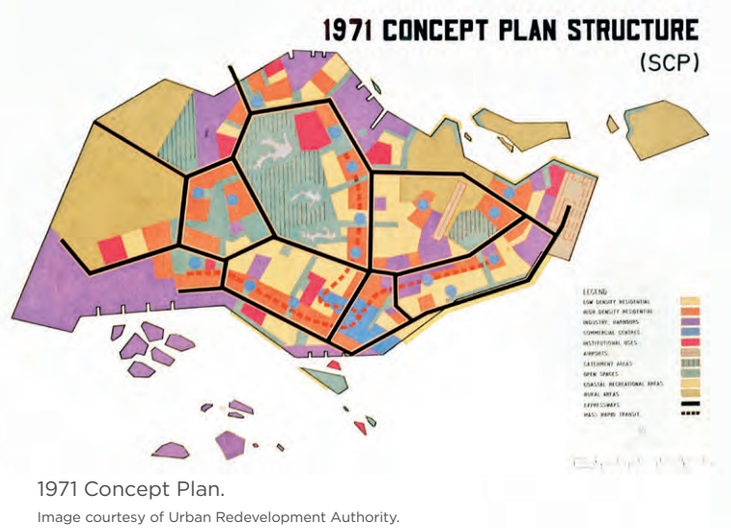
Singapore's First Concept Plan — Planning as Basis for Urban Development

Even as action plans for urban renewal were being implemented, the government was well aware that a "project-by-project" planning strategy carried risks in the long term. To address the need for long-term planning, a four-year State and City Planning (SCP) Project (1967–1971) was initiated as part of a UN Urban Renewal and Development Project under the UN Development Programme. Planning consultant firm, Crooks Michelle Peacock Stewart, was engaged for technical expertise. Officers from relevant government agencies were seconded to the project so that the transition from planning to implementation would be smooth.

Henry Wardlaw, project director from the consultancy firm, recounted the emphasis that the government placed from the onset on planning as a basis for development:

> *"On the government side, right from independence, it had had a strong view that a good physical plan, environmental plan, land-use and transport plan, all integrated into one, was an essential basis for building the economy and diversifying the economy in the way that was necessary. Because at that time the economy was largely dependent on entrepôt type of activities, which doesn't leave a lot of scope for the future. And unemployment was fairly high at the time, and good development was needed in different ways."*[27]

The outcome of this effort was Singapore's first Concept Plan, which was completed in 1971. The Concept Plan set out the development needs for a projected population of four million by 1992. The 1971 Concept Plan built on the previous UN recommendations, and provided a framework to guide development throughout Singapore. In particular, the Ring Concept Plan, first mooted by the KAK Team, was further developed in the 1971 Concept Plan, with development organised along a band around the central water catchment area and complemented by an east-west corridor along the southern waterfront. Anchoring the east-west corridor, the Central Area was to be further intensified and expanded, with most of the employment opportunities concentrated there. Land was safeguarded for a future rail-based rapid transit system, and a hierarchy of major roads and expressways was to be developed to support the overall urban structure.



1971 Concept Plan.
Image courtesy of Urban Redevelopment Authority.

The 1971 Concept Plan was followed through with effective implementation. Joseph Yee, then a young engineer involved in the SCP Project before eventually becoming Director of Planning and Transportation for the Land Transport Authority, attributed this to the government's high level of commitment to the plan:

> *"The fact that government actually endorsed the SCP findings was very important. Many people have done studies in other countries but not all of them have seen the light of the day. We were very lucky that our government took the SCP seriously. If they hadn't, our streetscape would not be as it is today — vibrant, efficient, with things moving."*[28]

GOOD GOVERNANCE AS A FUNDAMENT FOR CHANGE

Singapore's first decade of self-governance brought about rapid change and development. The establishment of an effective system of governance — including the setting up of action-oriented agencies with greater legislative muscle — enabled more effective implementation of urban renewal and infrastructural construction programmes. The government also recognised the importance of planning as a basis for development, ensuring coordination and optimisation of scarce land resources. The proactive role of the public sector in initiating change within a coordinated planning framework would come to characterise Singapore's urban redevelopment story.

CHAPTER 2

INITIATING URBAN RENEWAL THROUGH PUBLIC SECTOR ACTION

> Urban renewal was also necessary because we had used up all the available land nearest to the city centre. We had no choice but to move into the central area. The question then was, to clear this area, how do you solve the resettlement problem? That was the crux of the problem."[29]

Alan Choe, Head, Urban Renewal Department

By the mid-1960s, having established the necessary legislation, development strategies based on action programmes, and an effective public housing programme, the government shifted focus to urban renewal. In 1964, the Urban Renewal Unit was set up in the HDB's Building Department. Led by Alan Choe, then a young architect-planner, along with two assistant architects, the unit grew into the Urban Renewal Department (URD) in 1966. This team was responsible for implementing redevelopment strategies proposed by the UN experts in 1962/63 into action.

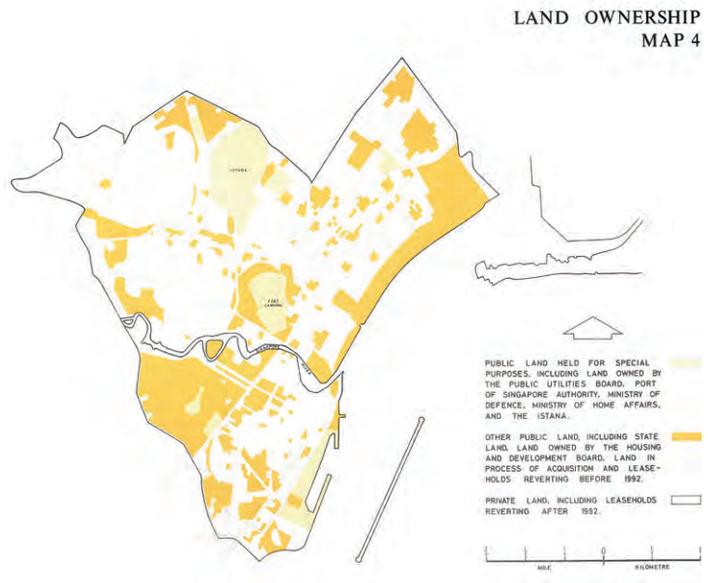
PRECINCT REDEVELOPMENT — CREATING ROOM FOR URBAN RENEWAL

The UN experts had proposed dividing the entire Central Area into 21 precincts.

> *"The plan then was to do it piecemeal.... Basically, the total area was defined by them [the UN "KAK" team].... Our job as a unit was to really go in-depth to find the precincts that we should use first. The tactic was to just start from the North and South approaching from the extreme edges towards the city centre or the river, which is the densest and the most difficult to operate."*[30]

Alan Choe, Head, Urban Renewal Department

Urban renewal began in 1966 with Precinct N1 and S1, to the north and south of the Central Area respectively. These precincts had been prioritised because of available "soft" areas where redevelopment could be more easily initiated by the government.



Land ownership in the Central Area in 1971.
Parcels in dark yellow depict state land available for redevelopment.
Image courtesy of Urban Redevelopment Authority.

Precinct N1

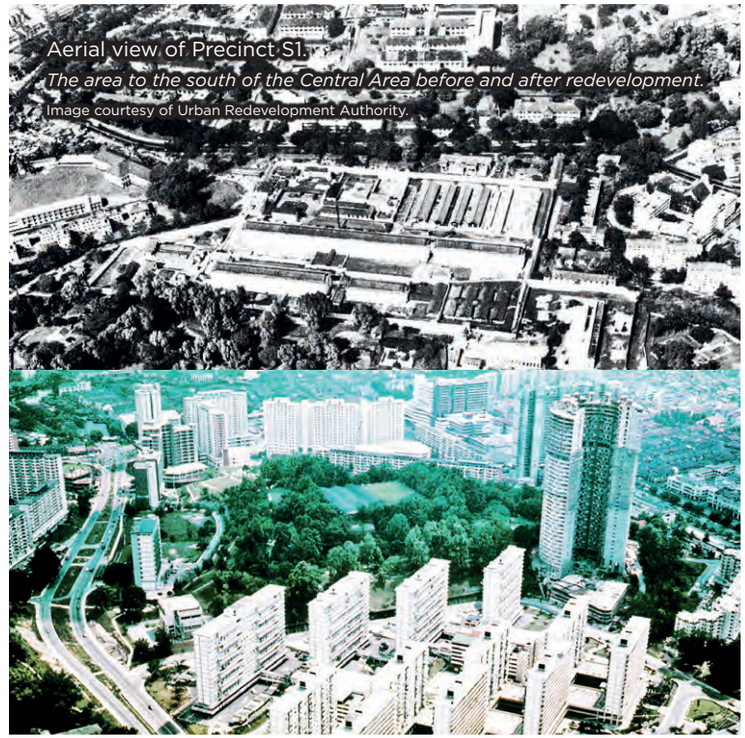
Precinct N1 consisted mostly of reverted properties[31] in the form of two-storey shophouses, single-storey temporary workshops, and other structures in dilapidated condition. By 1967, about 75% of the land area in the precinct was made available for urban renewal through land acquisition, affecting 2,216 families and businesses which were relocated to public housing estates with relative ease.[32]

The precinct was to be redeveloped primarily by the public sector, with 75% of the developments undertaken by the URD and the HDB. This consisted of public housing estates, public commercial complexes (resettlement centres) and other public amenities. The remaining 25% was built by the private sector on government sale sites.[33]

Immediately adjacent to the precinct, available prime land was set aside for redevelopment by the private sector through the Sale of Sites programme. Coined the "Golden Mile", the area was envisioned as a strip of "towering flats, office blocks and commercial buildings lining the main seafront overlooking Singapore harbour",[34] leading into the heart of the city from the airport in the east. The precinct was to accommodate some of the first comprehensive, large-scale private development in Singapore, made up of commercial podiums with residential towers.

Aerial view of Precinct N1.
The area to the north of the Central Area before and after redevelopment.
Image courtesy of Urban Redevelopment Authority.

Precinct S1



Aerial view of Precinct S1.
The area to the south of the Central Area before and after redevelopment.
Image courtesy of Urban Redevelopment Authority.

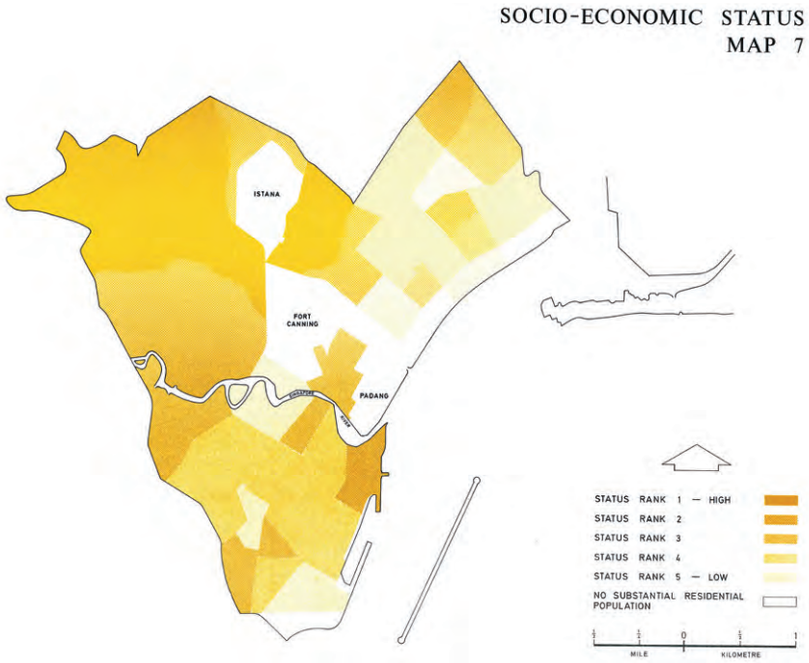
Precinct S1 was situated adjacent to the heavily populated area of Chinatown which consisted of overcrowded slums overrun with squatters. Outram Prison, which occupied a significant portion of the precinct, was a prime prospect for redevelopment, although Choe had some persuading to do:

> *"In our world of urban renewal, by virtue of what we have to do, we thought about recycling land very early on, way ahead of the planners and the other people involved in land-use planning because we could see the urgency and the need, and how the Master Plan should go. So in our department, we realised that the idea of moving Outram Prison had potential, but it was not going to be easy. How could we persuade [the] government to move the prison?*
>
> *One way was with the Master Plan. We demonstrated the long-term use of the Outram Prison land and the immediate possibility of using that to create a big enough resettlement area to clear those complicated cases in Chinatown."*[35]

Choe's foresight and enterprise in convincing the government to redevelop the Outram Prison area was significant. Not only were the resettlement needs of the immediate area resolved, but land and opportunities were opened up for the subsequent rapid redevelopment of densely populated areas around Chinatown. It demonstrated the value of considering trade-offs and alternative options in the optimisation of long-term land use.

Redevelopment in the south was just as rapid as that in the north. By end 1967, 98% of the total land area in the precinct had been made available for redevelopment, with 2,552 families and businesses resettled from slums to new public housing estates.[36]

ACCOMMODATION FOR THE DISPLACED IN THE HEART OF THE CITY



Socio-economic status of residents in the Central Area in 1971.

The lightest shade indicates the areas with least well-off residents, which were concentrated in the north and south.

Image courtesy of Urban Redevelopment Authority.

Singapore's early urban renewal was not merely a process of availing land for new development within a densely built-up city centre. The government also took responsibility for providing for those affected: from financial compensation for resettlement to the construction and allocation of alternative accommodation. This was especially important as the areas affected by early urban renewal efforts were amongst the poorest in the city.

The active social role of Singapore's public sector stood in sharp contrast to the approach of other countries in the 1960s, where redevelopment plans tended to focus on reaping economic gains without regard to the needs of the displaced. Choe recounted his findings from a study trip to the United States of America (USA) in the 1960s:

> *"Why it [urban renewal in the USA] is also so unpopular, is because when they clear all these areas, they negotiate with businessmen to take the land for their development. That was something very telling, which I learnt. So when I came back to start urban renewal, those lessons entered my mind, that we cannot do it the same way, that they just sent the bulldozers in."*[37]

A key priority for Singapore's early urban renewal initiatives was to minimise the hardship experienced by the displaced, while improving their living environment through public construction programmes. HDB's housing programme provided a good means of resettling affected residents, while the URD initiated the construction of resettlement centres to house affected businesses (see Resettlement Centres — Providing for Urban Communities). These measures brought about an improvement in living standards and gave the general population a stake in the rapidly redeveloping city. The benefits of urban renewal were therefore enjoyed not only by developers but also by the general populace.

RESETTLEMENT CENTRES PROVIDING FOR URBAN COMMUNITIES

Public development at Chin Swee Road.
The development's design incorporated residential slab blocks on top of retail podiums, maintaining the relationship between homes and businesses.
Image courtesy of Urban Redevelopment Authority.

Prior to redevelopment, communities and businesses in Singapore's Central Area formed an intricate, interdependent ecosystem similar to other traditional urban clusters in Asia. This made urban renewal more challenging. Alan Choe, the Head of Urban Renewal Department in HDB recounted:

> *"The key thing is that we found that clearing people and business is a very painful experience and if we can, we should try everything to help ease their problem. Notwithstanding alternative accommodation, which we have to provide for them and make them affordable, the more important thing is to keep the community spirit alive. The people will feel a lot easier if their neighbours are there, their shopkeepers are there. So we have to think of new ways to build something that will work."*[38]

Choe and his team relocated the urban communities using design strategies that addressed the needs of the people and the liveability of a highly dense urban environment. At a time when mixed-use developments were still a novelty, URD came up with innovative solutions to integrate residential blocks with retail podiums, which provided good shop frontage for affected businesses which were accustomed to street-side customer traffic in a shophouse setting:

> *"What we did [in Precinct S1] was that when we developed blocks of flats to house them, we also staggered the flats to make sure we create window views for people to see through, and it's quite functional. But more important is that, at the ground level, in order to provide the number of shops that we have to make for the resettlement, we based the design on a series of landscaped quadrangles or courts. This way, not only would shopfronts be those on the road front and facing outside [that would] have [a] shop front, we also created all those facing the internal landscape court to have valuable frontages."*[39]

The URD experimented with a "strata-zoning" approach that allowed for multi-use buildings, instead of a traditional mono-functional zoning approach. This allowed affected communities to adapt more easily to their new high-rise environments by maintaining the relationship between homes and businesses, and also helped to optimise land use. The same approach was eventually applied to private developments through the Sale of Sites Programme, creating bold, iconic mixed-use developments such as the People's Park Complex.

Mixed-use developments evolved into "resettlement centres", constructed to house affected businesses at urban renewal locations, including Jalan Sultan in Precinct N1, and in the later years, Cuppage Road and Hock Lam Street, all of which consisted mostly of shophouses. They also had a social purpose: a report in 1974-75 noted that these centres were built to "ensure that the small entrepreneur retains his place in the commercial heart of the Republic".[40]

"Transit centres" were also constructed to house affected businesses in the interim while permanent resettlement centres were being planned and built. The provision of these permanent and temporary centres served to "minimise the hardship of relocation"[41] for those affected comprehensive redevelopment programmes." This allowed the small businesses that "depend largely on servicing their particular areas"[42] to continue to be viable even in the face of urban renewal.

RESISTANCE TO URBAN RENEWAL

Racial Issues in Urban Renewal

As urban renewal often necessitates the mandatory relocation of people from blighted districts, it has been associated with social problems elsewhere in the world. In the United States of America (USA) in particular, urban renewal has been associated with racial discrimination:

> *"I found out that 'urban renewal' in US is a dirty word. They always say they send the wreckers in, they demolish everything, which is a fact and it's a [form of] racial segregation too. It happened to be so because the poorest are all the coloured people and when they do clearance, the man in the street thought that this is [because they were considered] a racial disgrace, [and that] they want to just scatter them."*[43]
>
> Alan Choe, Head, Urban Renewal Department

Despite government efforts to address the social implications of urban renewal, racial sensitivities also surfaced in Singapore during the 1960s. Residential areas, particularly in the Central Area, were still divided along racial lines. Precinct N1 for example, included Kampong Glam, which was then predominantly a Malay enclave. The United Malays National Organisation (UMNO), the leading Malay political party in Malaysia which Singapore was part of until its independence in 1965, took issue with the urban renewal programme. UMNO claimed that the resident Malays in the precinct were being discriminated against and forced to move out as part of the programme. This contributed to the rising racial tensions of the time, which culminated in the 1964 riots.[44]

However, despite UMNO's claims that Malay families were the only group affected by urban redevelopment plans for the Kampong Glam area, only 200 out of a total of nearly 2,500 families were Malay.[45] The precinct boundaries identified by Lorange for the urban renewal programme did not take into account ethnic enclaves and were instead based on physical factors such as the condition of buildings. This ethnically-indifferent approach to urban renewal was to prove wise.

Where urban renewal projects aroused ethnic sensitivities, a dedicated political will was needed to convince the people of the government's intentions. Choe described how then-Prime Minister Lee Kuan Yew personally set out to explain that racial discrimination was never part of the urban renewal plan:

> *"He went personally [as part of a] convoy. The whole lot, we went in about three, four convoys. I was in one of them, sitting in one of the rear trucks. They are open like a van. We went through the Kampong Glam area to try to convince the people... North and South. Chinatown, we do it; Indian area we do it....*
>
> *I said this because at the end of the day, when we talk about urban renewal, who are the key persons involved? Without a doubt, it's the Prime Minister of the time because that was a political platform. He promised and he wants to live up to it, that he would clear the slums and he will not compromise. He will plough ahead and that shows his determination and his involvement."*[46]

Resistance to Resettlement Policies[47]

Resettlement was a problematic task in the early days. HDB officers had to work hard to convince the affected families that the resettlement programme would improve their lives. The officers sometimes had to go to the extent of taking the families to see their resettlement estates. It was also challenging to align resettlement compensation with people's needs. Lim Hoon Yong, former Head of Resettlement Department in the HDB, recounted difficulties with the compensation payment procedures:

> *"In those days, the Civil Service rationale is that, 'Yes, the money is here, you move out, we pay you.' So in the compensation form, the money is there, you have to indicate that squatter has vacated site. Then the finance officer will prepare the payment. But the squatter said, 'I need the money! If I move, where to find you? I go to your office, the officer is not there...' So this is a different angle, different perception."*[48]

Recognising that squatters needed the compensation for their relocation expenses, Lim persuaded his colleagues to revise their procedures so that affected residents could be paid before moving out.[49] The government's efforts eventually paid off — the public soon came around to the benefits of resettlement. Lim Kim San, then-Minister for National Development, recounted:

> *"So it was not a popular thing — resettlement. But it took some time before the public realised the benefit of it all. And I think after a few years, there was no problem at all. When you go in and tell them, take a census and tell them, 'Look, we are going to acquire this place and we will give you a new house.' They were very happy."*[50]

Social Sensitivity as Key to Difficult Policies

Urban renewal was often a delicate matter:

> *"You must have that kind of sensitivity, political sensitivity. Sensitive to the environment of the resettlement area. Sensitive to social conditions of these resettled people."*[51]
>
> Lim Hoon Yong, former Head of Resettlement Department

Singapore's pioneer post-independence government shared a deep sense of empathy with the populace, which helped them ensure that policies would address the everyday needs of the residents. With strong leadership and an unwavering commitment to the people, difficult policies such as urban renewal and resettlement could be implemented with unparalleled success.

ENVIRONMENTAL CLEAN-UP

Urban renewal was not limited to rehousing people in the city — it also involved a comprehensive effort to improve the overall environment. Other than building modern infrastructure, cleaning up the heavily polluted city centre was one of the most urgent tasks at hand. Singapore is known for its cleanliness today, but the dire conditions of the 1960s (in particular the putrid urban waterways) had to be addressed through extensive public sector intervention.

Such pollution had a negative impact both on citizens' health as well as on the image of the city. Singapore's clean-up began as early as 1963 when then-Prime Minister Lee Kuan Yew launched a tree-planting campaign. This was followed by the Garden City campaign in 1967, and the Keep Singapore Clean campaign in 1968. The intention was to distinguish Singapore from other Third World countries by creating a clean and green city, which in turn would attract businessmen and tourists to make Singapore a base for their activities in the region.

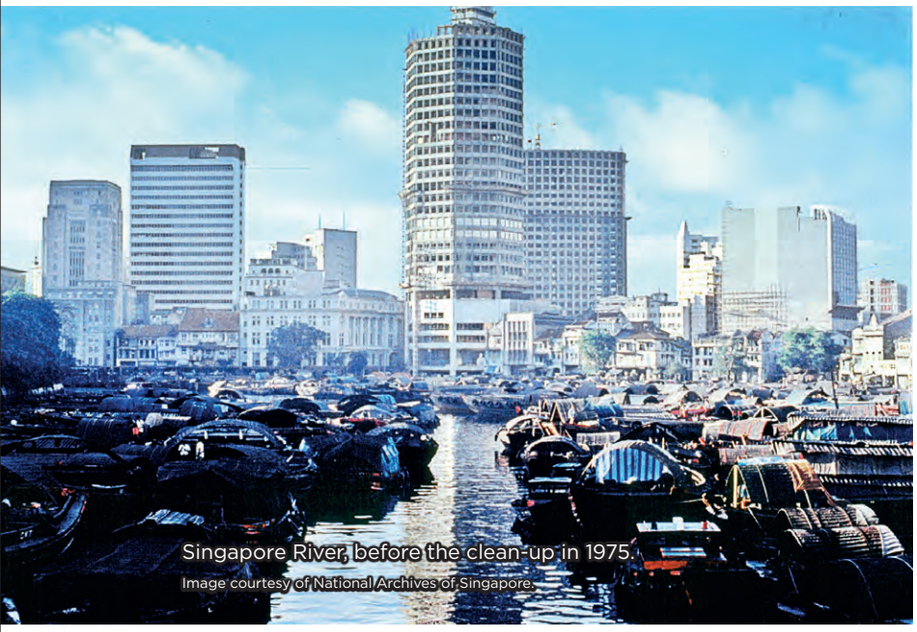
Taking Hawkers Out of the Streets

Street hawking was a persistent environmental problem, particularly in the city centre. Hawkers not only threatened public health by disposing food waste into open drains, but also affected traffic and order by taking up street space. On the other hand, street hawking was a unique and established aspect of urban life in Singapore, providing affordable meals for the urban population and employment for about 30,000 hawkers in the 1950s to 1960s.[52] The social value of street hawkers meant that hawking activities could not simply be removed from the streets, despite economic and environmental concerns.

In 1971, the Hawker Centres Development Committee was set up to relocate street hawkers to permanent public food centres, often referred to as "hawker centres". This addressed the environmental and health issues associated with street hawkers, while at the same time allowing their businesses to stay viable, with subsidised rental stalls in public complexes located in the heart of a rapidly redeveloping city. Several hawker centres built during the 1970s, in prime locations such as Collyer Quay and Boat Quay, were described as the "most expensive hawker centres in the city area"[53] during their time.

Boat Quay Hawker Centre at Singapore River in the 1980s.
Image courtesy of National Archives of Singapore.

The Singapore River Clean-Up



Singapore River, before the clean-up in 1975.
Image courtesy of National Archives of Singapore.

The most significant environmental improvement and urban redevelopment project was the Singapore River clean-up, initiated in 1977 by then-Prime Minister Lee Kuan Yew. At the time, the river was heavily polluted and many, including some industrialists, questioned the rationale for the costly river clean-up. Yet Lee foresaw the potential benefits of clean rivers for urban development:

> *"Clean rivers made possible a different quality of life. The value and use of land rose significantly, especially at the city and sites abutting rivers and canals."*[54]

The clean-up required massive inter-agency[55] efforts to dredge the river bed, remove debris and end river-polluting activities. It also involved the resettlement of squatters, polluting trades and industries, and even pig farms within the entire catchment area of the Singapore River-Kallang Basin. Following the clean-up, modern infrastructure such as sewers and water supply pipes were laid.

The work was finally completed in 1987. The cleaned-up waterways prepared the Central Area for its next phase of transformation, capitalising on the potential of the waterfronts to enhance the quality of the urban environment (see Chapter 4 — Private Sector Participation in Urban Renewal).

Aerial view of the Singapore River area in 1988, after the clean-up.
Image courtesy of G P Reichelt Collection, National Archives of Singapore.

GOVERNMENT'S ROLE IN BALANCING SOCIAL, ECONOMIC AND ENVIRONMENT NEEDS

Urban renewal, being a process of reallocating prime city land for development, is inherently redistributive — and it can result in inequitable outcomes among different stakeholders (for example, displaced people versus developers). In contrast with the experience of many other countries, Singapore's government played an extensive role in its early urban renewal process and was thus better positioned to balance the social, economic and environmental aspects of redevelopment for the benefit of the general public.

In particular, the comprehensive provision of alternative accommodation by the government, ranging from public housing, resettlement complexes to hawker centres, allowed the benefits of urban renewal to be enjoyed even by the man on the street. This eventually helped to generate popular support for — rather than resistance to — urban renewal in Singapore.

CHAPTER 3

FROM RENEWAL TO REDEVELOPMENT

By the 1970s, urban renewal had gained momentum, due to the success of the Sale of Sites and public housing programmes. The government began to look beyond the initial urban renewal tasks of slum clearance and resettlement.

While an action plan-based approach had enabled rapid urban renewal since independence, the need for further redevelopment called for greater coordination. For instance, the increased traffic demand brought about by higher development intensity could no longer be addressed by project-specific plans. Instead, the city's entire urban layout and transport system had to be designed to accommodate growth.

Changing Complexion of the Central Area

The nature of the Central Area had changed dramatically since the 1960s due to rapid urban redevelopment. In particular, the Sale of Sites Programme played a significant role in the transformation, contributing to 25% of office space, 68% of shopping space and 22% of hotel rooms in the Central Area by 1983.[56]

The residential population figures of the time also reflected this sea change. At the start of the urban renewal process in the 1960s, the Central Area had about 360,000 residents. By 1980, the population had decreased to 155,800; the percentage of total population living in the Central Area had declined from 30% to 6.5%.[57] The Central Area had transformed from a traditional, mixed-used urban core to a predominantly commercial hub with modern developments.

This shift called for a more holistic approach to optimising the use of limited land in the city area. To ensure this, the UN recommended the setting up of an authority to coordinate urban redevelopment work,[58] following the successful completion of the 1971 Concept Plan as part of the UN-sponsored State and City Planning Project.

ESTABLISHMENT OF THE URBAN REDEVELOPMENT AUTHORITY

Need for Greater Autonomy

As a department under the Housing and Development Board (HDB), the Urban Renewal Department (URD) was constrained in its efforts to expand urban redevelopment in the late 1960s and early 1970s. While the HDB focused on providing public housing for the masses, the URD pursued comprehensive redevelopment of the Central Area with participation from the private sector (see Chapter 4 — Private Sector Participation in Urban Renewal). These differing priorities meant that the URD had difficulty pushing ahead with the urban renewal agenda as it had to depend on other HDB departments for acquisition and resettlement provisions. Alan Choe, then the Head of URD, explained in a 1969 paper:

> *"It is symbolic that the Housing and Development Board is charged with [the responsibility of] Urban Renewal as the Board is the public housing authority and has also the Resettlement Department attached to it....*
>
> *But because Urban Renewal thrives on public and private participation, development of social and economic objectives, it may be necessary to establish it as a completely separate Statutory Board ultimately so that it can fully operate as an economic arm of the Government..."*[59]

To address the organisational limitations faced by then-URD, Choe gathered support for the setting up of a separate urban redevelopment authority. His supporters included leading figures such as then-Minister of National Development Eddie Barker, first Chairman of HDB Lim Kim San, first CEO of HDB Howe Yoon Chong, and then-CEO of HDB Teh Cheang Wan.[60]

An Authority for Urban Redevelopment

The Urban Redevelopment Authority (URA) was eventually established in 1974, with a mandate to go beyond urban renewal and slum clearance, and "implement a systematic programme of redevelopment of the Central Area." The newly set up URA was given "responsibility and power on all matters relating to urban redevelopment, including the clearance of land, development of land and management of buildings therein."[61] It was to "prepare and execute proposals and to sell and manage properties," but at the same time was also tasked to "undertake public housing schemes in the Central Area."[63] Staff employed in the Urban Renewal Department of HDB were transferred to this new authority.

There was no major shift in the core responsibilities of the URD in its transition into the URA, other than the inclusion of a car park provision regulation as part of its mandate.[64] The main change was the increased autonomy for the URA to achieve its redevelopment objectives. The URA gained the power to allocate precious land within the Central Area for purposes of slum clearance, resettlement and redevelopment — a key functional constraint faced by the URD when it was part of the HDB.

Turning Limitations in Regulatory Powers into Entrepreneurial Culture

Despite its autonomy, the URA's development proposals were still subject to Planning Department approval. Nevertheless, the combination of autonomous powers and financial independence created an organisation that was to spearhead Singapore's urban transformation over the next two decades. Khoo Teng Chye, Executive Director of the Centre for Liveable Cities (CLC) and former CEO and Chief Planner of URA, explained the entrepreneurial spirit in the URA then:

> *"URA had got[ten] no regulatory powers in planning. So basically the only way to get things done was come up with action plans, URA land sales, that's how we implemented and got things done right... when you don't have the power, you can become a lot more entrepreneurial, bold and more action oriented. I felt that was the URA."*[65]

Under URA's jurisdiction, the Central Area's boundaries expanded successively over the next two decades, as urban growth and the demand for development coordination increased. This eventually culminated, in 1989, in the merger of the URA and the Planning Department to form a new URA — which would undertake planning for the entire island (see Chapter 6 — Clearing the *Forest of Rules*: Planning and Development System Reforms).

COMPREHENSIVE PLANNING FOR THE CENTRAL AREA

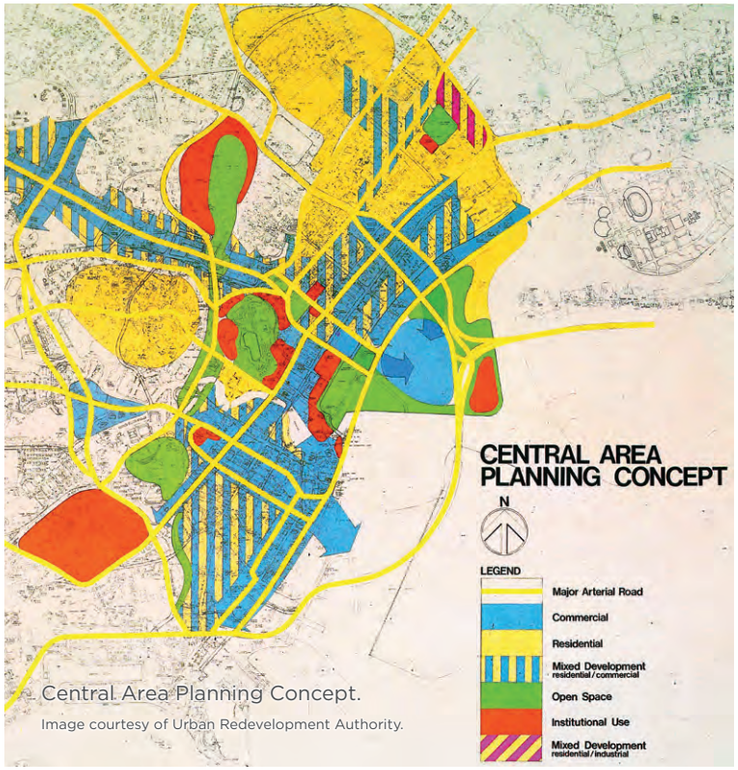
Although URA was established to systematically redevelop the city, a comprehensive plan for the Central Area was not considered until the late 1970s. Instead, the URA's focus at the time was on the Sale of Sites Programme and development projects. Furthermore, the Planning Department (PD) had limited capacity to further develop an implementable detailed plan from the UN planning projects.

There was also a lack of a central coordinating body for both private and public developments within and around the Central Area. Private developments were regulated by the Development and Building Control Department (DBCD) of the Public Works Division (PWD); while the PD regulated public sector projects. Both PWD and PD would consult the URA for developments in the Central Area, but were not obliged to consult the URA for developments outside the Central Area boundary even if the concerned developments were in immediately adjacent plots.

Central Area Planning Team — Laying the Fundaments for Comprehensive Redevelopment of the Central Area

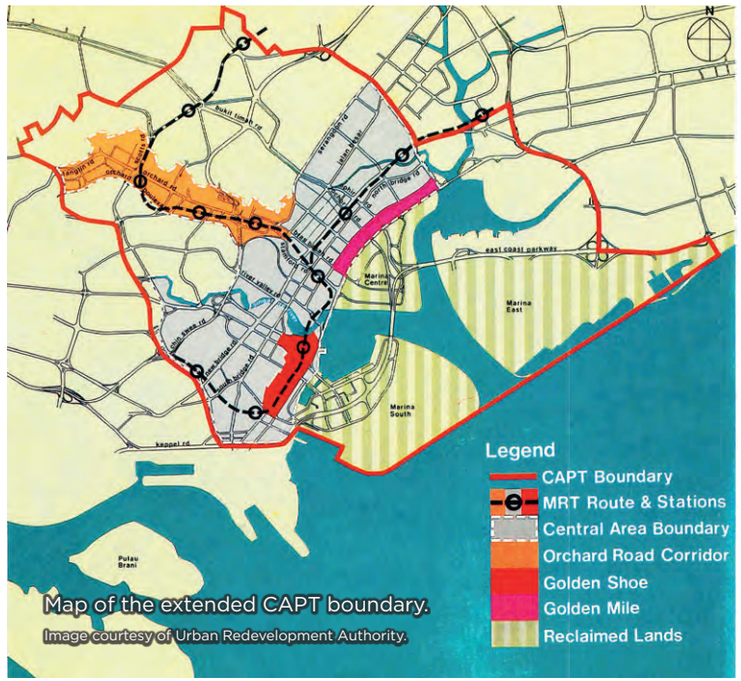
Concerned with the need to coordinate the rapid developments in the Central Area, Howe Yoon Chong, then-Permanent Secretary for Ministry of National Development, led the setting up of the Central Area Planning Team (CAPT) in 1979. CAPT was headed by the General Manager of URA with representatives from all government agencies involved in various aspects of Central Area planning — PD, DBCD, PWD (Roads), HDB, and the Parks and Recreational Department. CAPT's

role was "to guide planning effort, resolve difficult issues and problems and so perform an advisory role in development control"[66] for the Central Area. It was also described as "a vehicle that helps to transform URA's plans to reality."[67] The main report was completed in 1980, and a common land use concept plan was adopted thereafter.



Central Area Planning Concept.
Image courtesy of Urban Redevelopment Authority.

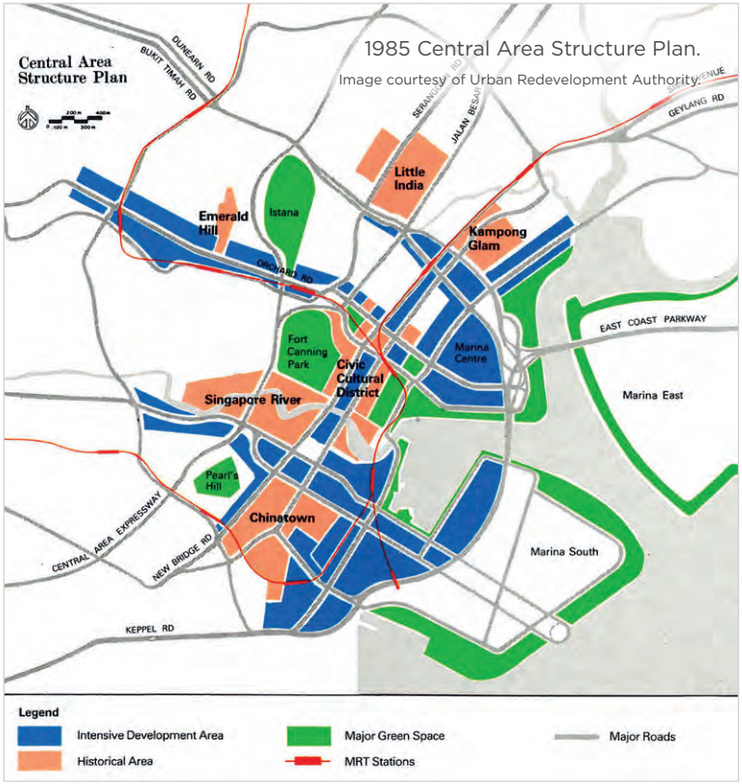
The role of CAPT did not stop at the concept plan stage. With most of the city's basic physical infrastructure in place by the 1980s, the URA had begun to focus on enhancing the quality of the city "in terms of visual and aesthetic expression of the built form as well as life in the city."[68] Special attention was given to enhancing the urban environment by ensuring "high standards of development, aesthetic considerations and a broad mix of facilities"[69] through detailed urban design studies following the main CAPT report.



Map of the extended CAPT boundary.
Image courtesy of Urban Redevelopment Authority.

The CAPT study area was also expanded significantly beyond the boundaries of the Central Area, extending development coordination and detailed planning to a larger area of 2,545 hectares[70] — almost three times the size of the 860 hectares which traditionally defined the Central Area.[71] This expanded area included land on either side of the Orchard Road commercial belt, as well as reclaimed land at Marina Bay, and sports and recreational areas in Kallang.

The final outcome of the CAPT was the 1985 Central Area Structure Plan, which included an urban design guide plan and an overall three dimensional concept for the city. The plan seized opportunities presented by the upcoming Mass Rapid Transit (MRT) system; it earmarked areas well-served by infrastructure for intensification, balancing them out with major green spaces and lower-rise historic districts "to be conserved as the lungs that breathe life into the city."[72] Having catered space for future growth in the intensive development areas, CAPT was able to consider areas for conservation. The Plan effectively established an overall comprehensive framework for sustained urban development, conservation and environmental improvement, laying the foundation for future detailed planning of districts within the Central Area.



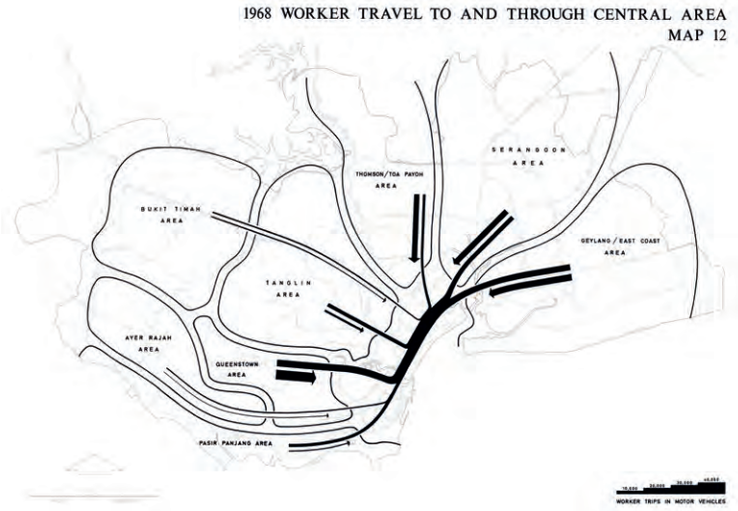
1985 Central Area Structure Plan.

Image courtesy of Urban Redevelopment Authority.

TRANSPORT DEVELOPMENT TO SUPPORT GROWTH

Apart from the construction of new buildings, comprehensive redevelopment also entailed establishing an integrated approach to transport in the Central Area. This was crucial to keep traffic flowing smoothly, particularly within the city centre, to support and sustain growing economic activity.

Prior to the early 1970s, transport policies were not coordinated with urban development. Instead, stop-gap measures were implemented to alleviate congestion. The State and City Planning (SCP) Project recognised that such measures, which included one-way streets and coordinated traffic signals, "have almost reached the limit of their effectiveness"[73] particularly in the Central Area. The SCP highlighted the need to integrate transport and urban development, and recommended rationalising the overall road network, in coordination with public transport and car parking policies.



Map of the traffic volumes into the Central Area in 1968.

The large amounts of traffic into the Central Area highlighted the need for alternative east-west connection.

Image courtesy of Urban Redevelopment Authority.

The Benjamin Sheares Bridge illustrates how transport planning complemented urban redevelopment. Completed in 1981, the bridge connected expressways to the east and west, and effectively diverted east-west traffic without having to go through the Central Area. Alan Choe stressed that "without this major bridge connection, the process of urban renewal would have been greatly stifled."[74]

Benjamin Sheares Bridge in the 1980s.

Image courtesy of Ronni Pinsler Collection, National Archives of Singapore.

Limits to Road Growth

An integrated approach ensured that transport infrastructure would complement the built urban environment. Road construction and growth were restrained, particularly within the Central Area, and transport planners aimed for a "modest road network" to serve the city.[75] It was recognised that further expansion of road space to cater for growth in the car population would "not only destroy the city but traffic operations over so many lanes" would also be "impractical and hazardous."[76] Urban planners, including former URA CEO and Chief Planner, Dr Liu Thai Ker, saw that building more roads to keep traffic flowing had its limits.[77]

Alternative measures to restrain the usage of cars in the Central Area were considered. The SCP and other studies highlighted that car restraint would be needed before 1992. The Area Licensing Scheme (ALS) was introduced in 1975 to limit car traffic volumes in the city centre.

Mass Rapid Transit (MRT) as a Catalyst for Urban Development

Road construction and car usage restraint were not enough to support an increasingly built-up Central Area. During the National Day Rally in 1976, then-Prime Minister Lee Kuan Yew spoke about concerns over transportation for the future growth of Central Area:

> *" ... the ALS area can only take 250,000 jobs, comfortably. After that, if it goes up to 300,000, well there will be a monumental jam. Even buses alone will jam.... So we go into the underground, MRT."*[78]

The government had to actively explore alternative means of transporting people to the Central Area. This provided the context of the Great MRT Debate: a series of studies and debates between 1972 and 1981 to determine whether an MRT was necessary for Singapore, and if the project was viable in view of its hefty cost.

The decision was eventually made in 1982 to construct the first 42-station network at a cost of S$5 billion. But the MRT proved to be much more than a transport system that could enhance the "environmental capacity" of the urban areas. It became a game changer that would fundamentally transform the urban landscape. Ong Teng Cheong, then-Minister of Communications said:

> *"...it is a common fallacy to regard the MRT only as a tool to solve transportation problems. A properly designed MRT is more than that. It also provides a valuable means of shaping more orderly urban development patterns. Confused and haphazard sprawl can be avoided by intensifying development along its routes. In this way, other land can be released for more meaningful development."*[79]

The MRT system had a profound impact on redevelopment of the Central Area, by providing opportunities for strategic development intensification in tandem with comprehensive conservation, as part of the 1985 Central Area Structure Plan. From the 1991 Concept Plan onwards, the MRT system became the basis for decentralising economic activities to the rest of the island, allowing the Central Area to focus on higher order commercial functions.

SCALING BACK OF PUBLIC BUILDING CONSTRUCTION IN THE CENTRAL AREA

> *"... the physical development of Singapore in the coming years will be increasingly undertaken by the private sector. The public sector will guide the course of our physical development rather than become involved in the direct implementation of projects."*[80]
>
> S. Dhanabalan, then-Minister for National Development, 1989

By the early 1980s, the overall role of the government in urban development was shifting. "Encumbrances" to redevelopment, such as resettlement of affected population and fragmented land parcels had been significantly reduced after years of successful public housing programmes and land policies. Direct government intervention, as in the cases of Precinct N1 and the Golden Shoe redevelopment, became less urgent. The government also reduced public building construction in the Central Area, allowing the private sector to drive the development of the prime city centre.

Public Housing Construction Ceases in the Central Area

From the 1980s, the rising economic potential of prime land triggered a general scaling back of public building construction within the Central Area to make way for more private sector developments. Commercial property rentals, for example, rose as much as 40% in 1979 alone.[81]

In 1982, then-Minister for National Development, Teh Cheang Wan, announced (soon after the decision to construct the MRT system) that "land in the Central Core is too expensive for the continued construction of public housing." In order to reserve the land for higher value developments, public housing would no longer be constructed in the Central Area.[82]

Consequently, land acquired and originally set aside for public housing in several areas within the Central Area, was not cleared for construction. Many buildings and other elements in these areas were eventually conserved for adaptive reuse as part of Singapore's historic districts, contributing economically through the tourism industry.

From "Resettlement Centres" to "Modern Complexes"

Resettlement centres — constructed by the URA to help affected businesses cope with displacement resulting from urban renewal — came under pressure from rapidly changing economic conditions. Resettlement needs had waned since the late 1970s, in part due to the success of the HDB's public housing programme, which saw much of the clientele for these businesses moving away from the Central Area into the new towns. In one of the largest centres built at Jalan Sultan, only about 31% of the shops and 6% of the offices were allocated to resettlement cases.[83]

The 1978/79 URA Annual Report discussed the issue of "low cost temporary resettlement centres" built in the early 1970s, such as the Capitol Shopping Centre. Despite their strategic downtown locations, these centres were of a "temporary nature" and constructed "with basic low cost finishes", and were hence ill-positioned to compete with private shopping complexes.[84] By the 1980s these "resettlement facilities" had been repositioned by URA as "modern complexes" with full air-conditioning, escalators, lifts and better layouts and finishes.[85]

The URA department managing these resettlement centre properties was eventually hived off to form a new company, Pidemco, during the merger of URA with PD in 1989 (see Chapter 6 — Clearing the *Forest of Rules*: Planning and Development system reforms). Pidemco would later become a major real estate developer, CapitaLand, following a further merger with DBS Land. These changes triggered another round of redevelopment for the centres. Complexes that used to accommodate small businesses affected by urban renewal were eventually privatised as shopping malls. Some centres, such as Blanco Court, were sold and redeveloped for other purposes.

EVOLVING ROLE OF THE PUBLIC SECTOR IN URBAN REDEVELOPMENT

As encumbrances to redevelopment lessened over the years, the government's role shifted from direct involvement in urban development to one of guiding, facilitating and regulating private sector development. Although the government continued to lead major infrastructural works to enhance the overall capacity for urban growth, public developments such as HDB housing and commercial complexes in the Central Area were scaled back from the 1980s onwards. This was intended to allow the private sector to take on an increasingly greater role in urban development, contributing to better quality developments.

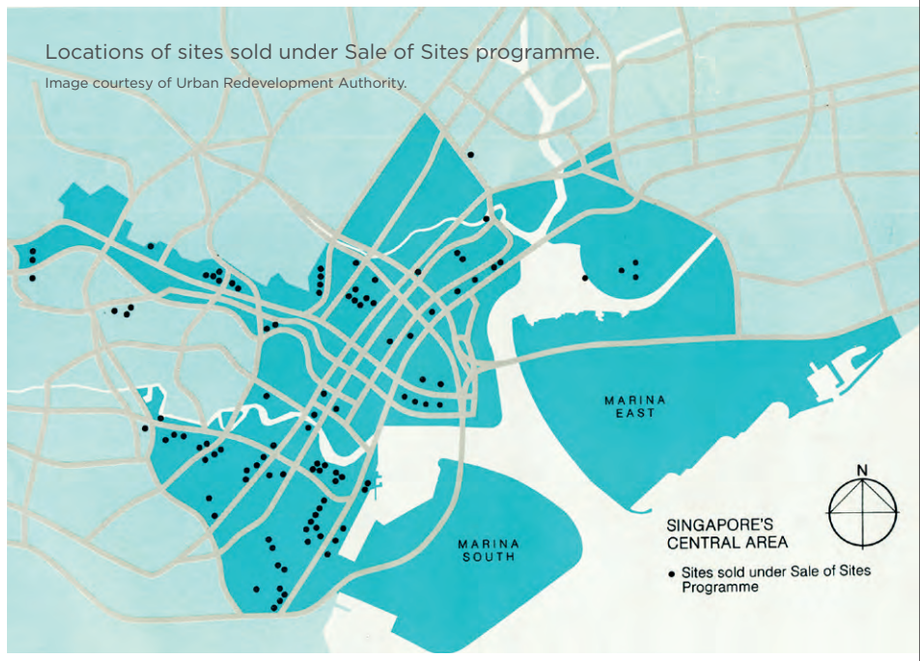
CHAPTER 4

PRIVATE SECTOR PARTICIPATION IN URBAN RENEWAL

> The Government [was] to provide the expertise, sites, infrastructure, social programmes including public housing and a favourable investment climate, whilst the private sector with its financial mobility and managerial skills [was] to undertake the economic projects — especially commercial buildings. Such a partnership would give variety, social and economic balance and dynamism to the Urban Renewal Programme."[86]

Alan Choe, first General Manager of the Urban Redevelopment Authority

Urban renewal was not only a means to improve living conditions through slum clearance, but also a way to generate economic growth and jobs. Even in the early days of Singapore's independence, the government recognised that public action alone was not enough to achieve both its social and economic goals. Its Sale of Sites programme[87] became a means to harness the resources of both the public and private sectors in order to accelerate and sustain urban redevelopment in meaningful ways.



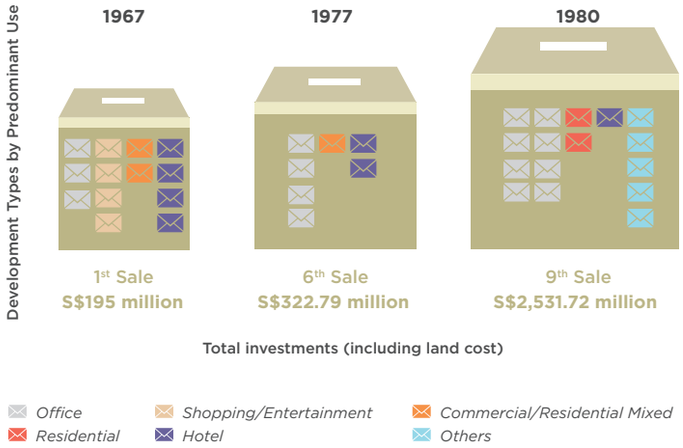
Locations of sites sold under Sale of Sites programme.
Image courtesy of Urban Redevelopment Authority.

SALE OF SITES PROGRAMME[88]

The first Sale of Sites programme was launched in 1967, with 13 sites sold for a variety of uses at several locations within the Central Area including Precinct N1 and S1. Alan Choe described the programme as a means for the government to "make available sites, sell the sites and use the proceeds to help do other social and other improvement schemes needed for urban renewal," and regarded it as the "engine" for the success of urban renewal.[89]

Exhibit 1:
Growing the Pie through the Sale of Sites programme

The success of the Sale of Sites programme grew over time with increase in total investment value. The different types of developments released at different sale reflect the development priorities of the times.



The Sale of Sites programme was more than just a simplistic process of acquiring, clearing, and selling land to the private sector. Instead, it involved a proactive government cultivating partnerships with the private sector through a variety of approaches. Several factors were key to the success of the Sale of Sites programme:

i. Ensuring Transparency and Integrity

Choe highlighted transparency as one of the key factors to the programme's success:

> *" We made known the rules of the Sale of Sites, which was that we will not negotiate. If we negotiate, people will say because government favours this developer. So it was a public tender, it was announced in the papers with plans of what they can do."*[90]

Singapore's emphasis on transparency in awarding urban renewal sites through a public tender process contrasts with examples of urban renewal programmes in other cities, such as in the USA. City governments elsewhere have often been seen as cutting deals with large developers for redevelopment of depressed areas. These behind-the-scenes negotiations feed popular perceptions associating urban renewal with corruption, especially since urban renewal sites often occupy prime land within the city centre.

Transparency also involves providing information upfront on the sale site, as well as laying down clear tender conditions, which developers would have to abide by. To establish these guidelines in the early years of the Sales of Sites programme, the Urban Renewal Department (URD) obtained pre-approval for the sale sites from various technical departments prior to the launch, paying particular attention to the specific uses and development intensities that the sites were planned for. The URD prepared simulated plans to lay guidelines for urban design, types of developments, plot ratio and other development parameters. This technical information was accompanied by the terms and conditions of tender, stipulating the mode of tender, payment and other conditions for the sale. All this information, along with other plans and documents such as soil test reports, formed the full tender package available to developers interested in the public sale of sites.

Such clarity and detail in the development parameters and conditions of tender meant that the private sector developers could proceed with their investment developments with certainty. This was particularly important at a time when the planning parameters on allowable developments for each particular site were relatively opaque to the public.

ii. Understanding Market Needs

Redevelopment needed to be in line with economic needs. In addition to in-house research and policy directives from the Ministry of National Development, the URD worked closely with the economic agencies, in particular the Economic Development Board (EDB) (set up 1961) and the Singapore Tourism Promotion Board (STPB) (set up 1964) "to know what are the things in demand in Singapore, especially in the field of tourism development, real estate and commerce."[91] Supply and demand projections were made for various types of developments to determine the types and intensity of developments for the sale sites. Four of the first sale sites, for example, were sold for the purpose of hotel development. These sites were mostly in the Havelock area where the government had acquired disused oil mills for redevelopment. This generated 1,320 hotel rooms,[92] contributing substantially to the expansion of the hotel industry in Singapore and supporting the STPB's objective of growing Singapore as a tourist destination.

As the real estate industry began to develop in Singapore, the government sought feedback from the private sector to understand market needs. Public officials had to balance between establishing a good relationship with the private sector, and maintaining the integrity of the system — a principle upheld to this day. As Senior Advisor, Urban Redevelopment Authority (URA), Mr Choy Chan Pong explained:

> *"We need this closeness because with this closeness, then we get feedback and there is trust. Of course, there will be lobbying.... So we have to be discerning what is lobbying and what fair feedback is. The feedback mechanism is absolutely important. That's why we have dialogues with them [the private sector] — official dialogues and informal meetings."*[93]

III. Flexible, Pragmatic Approach to Achieve Development Objectives

For private sector participation in development to succeed, the government had to be flexible in applying rules. This was particularly important in the early years of the land sales programme. For the first Sale of Sites in 1967 only seven out of the 14 sites offered for sale were successfully tendered after a four-month tender period.[94] Chan Sui Him, Chairman of DP Architects, reflected on the Golden Mile Complex project (originally Woh Hup Complex) which was developed from the first sale in 1967:

> *" I remember nobody was interested in Golden Mile... the subject of the project was too large, so the investment may be large. And so they [private sector] may not have the confidence in doing a major development like that.... The initial question is how are we able to convince anybody to invest in Singapore? This phenomenon is similar to any developing country. We are no exception."*[95]

The first two Sale of Sites in 1967 and 1968 were especially difficult as public education, dialogue and publicity were required to explain the objectives and opportunities offered to the private sector to build large, integrated mixed-use buildings, hotels and office buildings. This was particularly so for larger sale sites that were about 200,000 square feet in area, compared to the sites sold successfully through previous tenders, which averaged about 70,000 square feet.[96] These large sites had been made possible by the painstaking process of land acquisition, resettlement and land re-assembly for comprehensive redevelopments. Alan Choe recounted the intention behind the government's resolution to initiate large developments:

> *" In the past, fifty years ago, in the 1960s, there were very few buildings of significance in Singapore. When we launched the sale, we had to think of ways and means — how do we get that impact? Because that was the most [crucial] thing to persuade the private sector to come in. We realised that if we do piecemeal little projects, we're not going to create the impact we want and to draw overseas investors to come in."*[97]

The government had to strike a balance between maintaining the integrity of the land sales system, and achieving their development objectives. This flexibility allowed for more important sites to be sold to catalyse redevelopment, and to build up investor confidence and interest over time.

Koh Seow Chuan, founder of DP Architects, also pointed to flexibility by the authorities as a key success factor for two of the most iconic mixed-use developments from the first Sale of Sites in 1967 — Golden Mile Complex and People's Park Complex:

> *" ...in meeting government requirements, [or the] authorities' requirements, we can take a very rigid stand and say this is it. Or you can be a bit flexible and say, 'Well, what you are proposing is in the spirit of our intent and therefore, we agree with your alternative.'.... So if you have a sensitive government agency and sensitive personnel who sees it from that point of view, you can do greater things together and then the public-private sector effort would result in greater achievement."*[98]

IV. Incentives for the Private Sector

The new land sales programme lacked a proven track record to persuade private developers to sink capital into developing the sites. To address scepticism from developers, the government offered concrete incentives. The 1967 Property Tax Order provided special concessions for sale site developments in designated areas with a property development tax rate of 12%, a third of the normal rate of 36%, over 20 years. Other concessions included a low 20% downpayment, and interest-free loans with repayment periods over 10 years. These incentives were eventually repealed over time as investor confidence and demand took hold; the tax concession was removed in 1974 and the downpayment and instalment scheme ceased in 1988.

V. Cultivating Trust and a Common Purpose with the Private Sector

The partnership between the public and private sector went beyond dollars and cents. Much of it was about developing trust in the system, as Choe recounted:

> *" ... the task of URA in those days was very different because when you want to go to private sector, they do not know what is urban renewal. They think [the] government [is] trying to cheat them. So part of my job was that I have to go almost every fortnight to give a public speech, here, there, everywhere... Rotarians, Lions' Club, Business Chamber of Commerce, a lot of them... not only do we have to explain to them [about] urban renewal, but more importantly is that we have to tell them that this is what the country needs."*[99]

Choe also highlighted the importance of balancing business acumen with civic and social responsibility among private developers. The argument was that this would benefit both society and their development projects.[100] Recounting the development of People's Park Complex, Koh Seow Chuan concurred:

> *" People's Park also became a landmark and a lot of developers were terribly impressed. We did at [a] very, very low cost — 14 dollars per square foot inclusive of air-conditioning and all the rest. But we had an idea — that Singapore needs some of these buildings in the city for all Singaporeans to get together. So we planned this People's Park with a big, huge concourse, a big, huge atrium.... And we were very, very clear that cities that have buildings like that have a civic space, it's a people's space, and we call it a 'city room'."* [101]

The atrium at the People's Park Complex.
Image courtesy of Urban Redevelopment Authority.

vi. Creating a Platform for Innovation and Design Excellence

The Sale of Sites programme established a platform to harness public sector initiative and private sector resourcefulness to improve the built environment. Urban design guidelines established by the URD, and subsequently the URA, stipulated minimum requirements for the sale site developments. Significantly, the tender award took into account not only the land price, but also the design of the proposed development as well. This contributed to the improvement of architectural design standards and the quality of the built environment.

But incorporating design as a key tender evaluation criterion was a potentially sensitive decision. It risked exposing the land sale system to corruption, a problem endemic in many other countries. The tender process based on both land price and design was eventually approved by the Cabinet. However, challenges in resolving the subjectivity of design and the need for transparency in the tender process remained:

> *" A classic example is the Pearl Bank site*[102] *and Tan Cheng Siong's design for the building. His design [came with] the third highest bid.... But his design was outstanding compared with the others, so it was a real test at that time when I submitted the paper to say that we recommended acceptance based on design, even though it was not the highest [bid]....*
>
> *Hon Sui Sen*[103] *called me up to say, "You sure you want to do this? Because you have to be very careful." I told him, "Yes." I said very simply that if we said land price was not the only criteria, but also design, we must prove to them.... So wherever we went, everybody knew that design was important because we were awarding tenders based on that, so that they don't think it was only lip service."*[104]

Ensuring the integrity of a policy not only required the right processes, but also leadership that was determined to achieve the intended outcomes. This emphasis on design created a host of opportunities for local architects. It also elevated architectural standards and attracted internationally renowned architects such as I. M. Pei (USA) and Kenzo Tange (Japan), who designed the OCBC Building and UOB Plaza respectively.

ROLE OF THE GOVERNMENT IN PRIVATE SECTOR DEVELOPMENTS

Philip Ng, CEO of Far East Organization, has argued that a combination of public action and private interest is necessary to ensure succession urban development, since markets have limitations:

> *" The market does fail; the market does not always anticipate the needs of the future. That's where the regulators, the planners, and the people that [can] make it happen — the public sector must come in... and then we come in and we hope to extract some value, and [it is] in the process that we can also contribute to this value chain."*[105]

The market cannot function by itself; the private sector, while vital, is ultimately dependent on appropriate and timely state intervention to facilitate successful redevelopment. The redevelopment of Golden Shoe district and Orchard Road are two cases in point. These two areas were key redevelopment zones within the Central Area — the former comprising the commercial heart of Singapore since colonial times; the latter a predominantly suburban residential area redeveloped over time by the private sector into a new extension to the city core.

To determine the extent of intervention needed to attract effective private sector participation in each area, the government had to have a firm grasp of ground conditions. In the case of the Golden Shoe district, highly fragmented land ownership and rent control legislation limited the potential of the most prime real estate in Singapore. Private land had to be acquired by the government and amalgamated into land parcels large enough for comprehensive redevelopment to be viable. On the other hand, Orchard Road was mostly free from such constraints, and could generally redevelop according to market forces. Thus, the government did not need to intervene heavily in the redevelopment of Orchard Road; it only needed to facilitate redevelopment with a light touch and provide the necessary public amenities.

CASE STUDY 1: DECISIVE STATE INTERVENTION — THE GOLDEN SHOE FINANCIAL DISTRICT

By the late 1960s, successful industrialisation and the rapid modernisation of Singapore's economy had generated significant demand for office and commercial spaces. To fuel growth in the commercial sector, the government kick-started the redevelopment of the commercial heart of Singapore — what was to become the Golden Shoe district.

Second Sale of Sites

The redevelopment process began with the second Sale of Sites in 1968, which offered 14 sites, most of which were state land. Five of these parcels were along the waterfront at Shenton Way, where public warehouses, car parks and jetties used to serve as the port area for bumboats. These areas had become under-utilised since the advent of the large-scale container port at Tanjong Pagar. Being further from the city, such traditional port areas were eventually phased out and slated for redevelopment. The 1968 land sale also focused on office developments, with a total of 163,881 square metres of office space.[106]

Lifting Rent Control to Facilitate Private-Led Redevelopment

While land acquisition and the Sale of Sites programme were powerful mechanisms to facilitate comprehensive redevelopment, such state intervention was generally used only as a means of last resort — especially for commercial developments. As far as possible, the government tried to facilitate redevelopment by the private sector through other market-friendly policies.

One key obstacle to redevelopment was the Rent Control Act, introduced in 1947 to protect tenants from rising rentals due to the housing shortage in the aftermath of World War II. It prevented rent on any kinds of premises from rising above 1939 levels. However, rent control had several detrimental effects. Firstly, artificially suppressed rents made it uneconomical for property owners to conduct proper building maintenance. Secondly, it severely restricted the redevelopment of properties, as property owners could only repossess properties under certain conditions. Furthermore, a 1961 amendment

prevented owners from repossessing premises for new development.[107] This effectively deprived the city of available land for redevelopment.

To address these challenges, the government passed the Controlled Premises (Special Provisions) Act in 1969, empowering the Ministry of National Development (MND) to phase out rent control for gazetted areas. Owners of affected properties were allowed to recover their premises through the payment of compensation to their tenants as determined by Tenant Compensation Board under MND.

The government was mindful of the consequences of lifting rent control — including the need to resettle affected households, which could over-tax the housing supply, or the possibility of triggering a sharp increase in land values that could lead to inflationary pressures. Hence, rent control was only lifted in a few designated areas initially.

The area defined by Telok Ayer Street, Maxwell Road, Shenton Way, Cross Street, Raffles Quay, Collyer Quay, Boat Quay and Market Street was selected as a pilot area for the lifting of rent control on 28 February 1970. This area not only encompassed the traditional commercial heart of Singapore at Raffles Place, but also included, within and around its vicinity, eight of the sites from the second Sale of Sites in 1968. The area was coined by the media as the "Golden Shoe", after the "Golden Mile" at Beach Road, because the shape of the district gazetted for decontrol resembled an upturned shoe. Within five years of decontrol, 13 projects were completed in the Golden Shoe, with another 14 projects under construction and nine approved.[108]

Compulsory Land Acquisitions

Land fragmentation remained a problem where private land owners could not come to an agreement on land amalgamation. To speed up redevelopment, the government started gazetting small, uneconomical parcels for acquisition in 1975. An area of 4,000 square feet was used as a guide for assessing parcel sizes, below which independent redevelopment was deemed unviable.[109] Some owners appealed to the government in order to avoid compulsory acquisition, which offered compensation below the market rate. Three of the appeals were approved and the land was returned to the owners for their redevelopment.[110] The remaining land was acquired and subsequently cleared, re-parcelled and sold, in the eighth (1980) and ninth (1981) Sale of Sites.

Golden Shoe District, before and after redevelopment.
Image courtesy of Urban Redevelopment Authority.

By 1979, the government once again felt that redevelopment in the Golden Shoe district was slowing down. The MND issued revised guidelines on minimum sizes of proposed developments (8,000 square-foot site area), and situations whereby small land parcels should be acquired either by the state or by the private sector. A three-month deadline for compliance was also imposed, to underscore the prospect of compulsory acquisition. Eventually, 16 lots amounting to 4,226 square metres were acquired in 1980.

There were different reasons why the state offered low compensation rates when it acquired land. It ensured that land acquisition was kept financially sustainable, particularly for public infrastructure and developments; the prospect of compulsory state acquisition also served to prompt the private sector into amalgamating their land for comprehensive redevelopment. The latter was generally enforced only as a last resort to overcome market encumbrances.

CASE STUDY 2: INTERVENTION WITH A LIGHT TOUCH — ORCHARD ROAD SHOPPING DISTRICT

Orchard Road in the early 1900s was a suburban residential neighbourhood. Until 1960, there was limited commercial development in the area, with only one good class hotel (Goodwood Park Hotel), one department store (C. K. Tang, which was the first large retailer to relocate from the central core area at Raffles Place), and a few supermarkets (Cold Storage and Fitzpatrick's).[111]

Favourable Development Conditions

The tourism drive in the mid-1960s began to spur redevelopment on Orchard Road, although the area was not included as part of the plans by the URD for the Central Area.[112] Hotel and shopping centre developments were particularly attracted to the area, due to the following factors:[113]

i. large land parcels free from encumbrances and rent control;

ii. existing shopping and entertainment facilities;

iii. good green environment; and

iv. Master Plan zoning which allowed for hotel and other commercial developments. This meant that developers could proceed with their commercial developments with greater certainty, and without having to apply for a change of use in their development applications.

By the 1970s, several major hotels and shopping centres had been completed. These included Far East Shopping Centre in 1974 and Lucky Plaza in 1978. The latter was touted as one of the world's first multi-storeyed, air-conditioned shopping centres[114], and helped anchor the district's position as Singapore's premier shopping street.

Facilitating and Guiding Growth Through Land Sales and Guidelines

In the mid-1970s, the government began to intervene minimally in the redevelopment of Orchard Road. As most of the new developments until then were concentrated in the upper stretch of Orchard Road near Scotts Road, the URA offered the first Orchard Road sale site along Koek Road as part of the fifth Sale of Sites in 1976; several large sale sites in that area were offered in subsequent years.[115] The surplus of office spaces in the mid-1970s due to the oil crisis, along with concerns that Orchard Road might become another office district, prompted the government to restrict office developments within the area.

Orchard Road in 1970, as seen from Mandarin Hotel.

Image courtesy of Singapore Press Holdings Limited. Permission required for reproduction.

Orchard Road in 1980.

Image courtesy of Singapore Tourism Promotion Board Collection, National Archives of Singapore.

By the 1980s, Orchard Road had the largest concentration of hotels, and retail and entertainment developments in Singapore. Any further growth along Orchard Road would depend largely on the government, as most of the available tracts of land from the 1980s onwards belonged to the state.

The completion in 1988 of the Mass Rapid Transit (MRT), Singapore's urban rail system, connected Orchard Road to the rest of the island, making the district even more attractive. This was well-illustrated by the 2005-06 land sales for the Orchard Turn and Somerset MRT sites, which were strategically located to maximise the potential of the MRT network. The former was dubbed "the mother of all shopping centre plots"[116] in Singapore; the sale of the Somerset plot topped even the winning bid for Orchard Turn.

Enhancing the Environment with Public Amenities

In 1973, the government initiated construction of the tree-lined pedestrian mall that now characterises Orchard Road,[117] enhancing the unique and pleasant shopping experience that has contributed to the success of the district.

A Facilitative Approach to Redevelopment

Unlike the heavily state-led development of the Golden Shoe district, the redevelopment of Orchard Road was largely undertaken by the private sector, which was drawn to the many attractions and market advantages of the site's location. With few encumbrances to comprehensive, market-led development, the government only had to act as a facilitator: providing infrastructure (in particular the MRT) as well as public amenities and design guidelines, and creating opportunities for further development through land sales.

URBAN RENEWAL: THE OUTCOME OF PUBLIC INITIATIVE AND PRIVATE INTERESTS

The Singapore government took the lead in setting up the framework and parameters for the private sector, to drive the urban renewal process. The government channelled market forces by offering targeted incentives and creating a conducive investment environment. This ensured that private sector developments were aligned with the overall development objectives of the city.

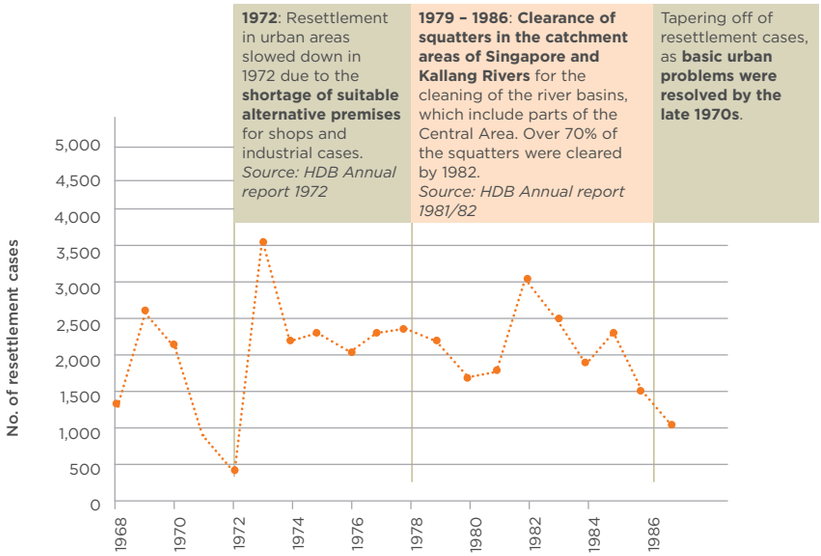
However, markets are imperfect and can sometimes fail. In certain instances, as in the case of the Golden Shoe district redevelopment, government intervention was necessary to remove encumbrances to urban renewal. This fine balance between public intervention and market friendly policies characterised Singapore's approach to urban redevelopment.

CHAPTER 5

QUALITY AND IDENTITY OF THE URBAN ENVIRONMENT

With the "basic urban problems of overcrowding, traffic congestion, lack of physical infrastructure and dilapidated slums"[118] resolved by the end of the 1970s, the pressure to redevelop became less acute. By the 1980s, the pace of redevelopment in the Central Area had slowed significantly; resettlement tapered off after the mid-1980s (see Exhibit 2 below).

Exhibit 2:
Resettlement Cases in Singapore over the Years



Source: URA Annual Report 87/88, p. 33
URA Annual Report 82/83, p. 1

The Urban Redevelopment Authority (URA) then began to focus on the "development of the character and form" of the city. Following a comprehensive review of the entire Central Area by the Central Area Planning Team (CAPT), emphasis was given to preserving the built heritage in historic areas and improving the general city environment with quality public spaces.[119]

FORMULATING A CONSERVATION FRAMEWORK

While conservation and rehabilitation were among the key principles for urban renewal in the report drawn up by the 1963 UN "KAK" (Koenigsberger, Abrams, Kobe) planning team, social and economic needs were given greater priority in the 1960s. The general perception among many key decision-makers in the government was that dilapidated old shophouses were simply "slums to be pulled down."[120] Conservation was not considered on a comprehensive scale in Singapore until the 1980s, although there were some piecemeal efforts as far back as in the 1970s to conserve selected sites as tourist attractions.

By the early 1980s, the context had begun to change dramatically. Former Chief Planner Koh Wen Gin, who was then a young architect in the URA, cited a unique combination of factors[121] that gave URA the confidence to proceed with conservation on a comprehensive scale, namely:

i. The completion of basic physical development programmes in the city;
ii. Large scale reclamation at Marina Bay to satisfy future growth needs;
iii. Desire to enhance Singapore as a tourism destination for economic growth; and
iv. Growing desire among Singaporeans to preserve a sense of history in the urban environment.

In addition, the property downturn of the early 1980s had created a glut in the real estate market, with an oversupply of office space projected to reach 950,000 square metres by 1990.[122] This further reduced pressure to redevelop the older parts of the city.

In 1986, Singapore's first conservation plan was announced to the public.[123] Chinatown, Kampong Glam, Little India, Boat Quay, Clarke Quay, Cairnhill and Emerald Hill were identified as the first seven conservation districts, comprising some 3,200 buildings — which account for 4% (or 55 hectares) of total developable land area within the city centre.[124]

Government support and the involvement of the private sector, which owned three-quarters of the conservation areas,[125] were crucial. The gazetting of the conservation districts was therefore only half the battle won; over the following years, the URA had to work hard to convince the owners of the shophouses of the importance and value

of conservation. To demonstrate the government's commitment to the conservation programme, the URA successfully implemented a pilot project in Tanjong Pagar in 1987, showing how dilapidated shophouses could be restored into charming properties.[126]

Emphasis was placed on the economic viability of conservation initiatives. Liu Thai Ker, CEO and Chief Planner of URA (1989–1992) explained:

> *" We have to bring in viable social and economic life so that not only is there money to pay for restoration, but there is money to maintain the buildings. Our view is that we want the building for uniqueness, for history. At least we have that. And if businesses are doing well, there will be life in the streets."*[127]

Entire districts were to be conserved in the Central Area; outside of the Central Area, new developments were allowed to be mixed among conserved buildings. A strategy of phased conservation and adaptive reuse was adopted, following a carefully planned phased lifting of rent control announced in 1988. Incentives addressing the development constraints faced by developers of conserved buildings were given to facilitate conservation. These included the waiver of car park deficiency charges[128] and the waiver of development charges for change of use.[129] The economic value of conserved properties was soon realised, leading to greater private sector interest in conserved buildings.

Such flexible, market-oriented policies, balanced with clear heritage objectives, have led to successful conservation in Singapore. As of 2015, over 7,000 buildings and structures had been gazetted for conservation. The programme, which was awarded the prestigious Urban Land Institute (ULI) Award for Excellence in 2006, was lauded for its "collaborative effort among government organisations and the public that balances free-market economics with cultural conservation."

ENHANCING THE URBAN ENVIRONMENT THROUGH DETAILED PLANNING

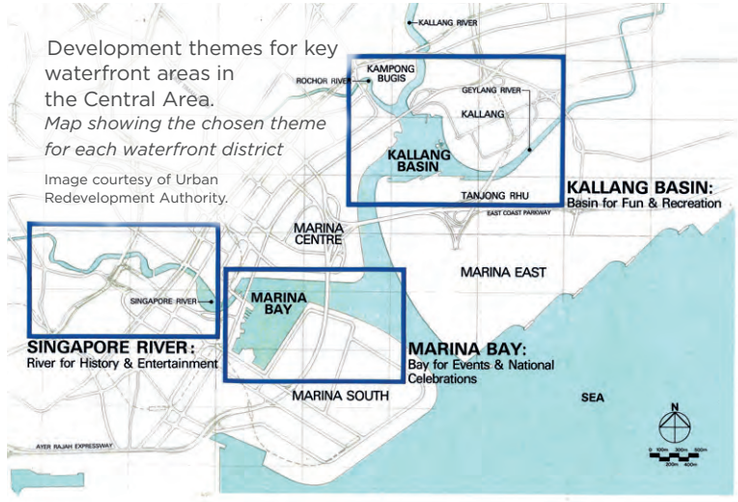
Following the 1985 Central Area Structure Plan, a series of detailed master plans were drafted for key areas within the city. Two of the most important plans from this period were for Urban Waterfronts and the Civic and Cultural District. These two plans focused on two intrinsic assets of the Central Area: the waterfront that brought life to Singapore as a trading port city, and the historic Civic District, which had shaped the identity of the city since colonial times.

Harnessing Waterfront Assets: The Urban Waterfronts Master Plan

The planning focus on urban waterfronts followed the completion in 1987 of extensive efforts to clean up the Singapore River and Kallang Basin. The cleaned-up environment, together with the vacant historic buildings and waterfront land resulting from resettlement, opened up unprecedented opportunities for a new symbiotic relationship between Singapore's water bodies and urban developments.

Preparation for the revitalisation of the waterfront areas can be traced back to the 1985 Singapore River Concept Plan, long before the clean-up was completed. The plan sought to revitalise the area through a unique mix of land uses and development approaches that would optimise the use of riverfront land, making the most of its strategic location in the Central Area, while preserving the historical character of the district.

The URA soon moved beyond the Singapore River to development planning in two other prime waterfront areas in the Central Area: Marina Bay and the Kallang Basin. The Draft Master Plan for the Urban Waterfronts at Marina Bay and Kallang Basin was released in 1989, identifying and clarifying the distinct development characteristics for each.[130] Together, the plans for the three key waterfront districts constituted a comprehensive approach to optimising and enhancing Singapore's waterfront assets.



Development themes for key waterfront areas in the Central Area.
Map showing the chosen theme for each waterfront district

Image courtesy of Urban Redevelopment Authority.

By the 1990s, the Singapore River had developed into a popular waterfront entertainment destination. This was realised through a combination of measures: land sales for new catalyst developments, detailed design guidelines for the development of conserved buildings in order to achieve a desired character for the area, and conservation programmes for existing owners. To demonstrate the government's continued commitment to revitalise the river district, the riverfront pedestrian promenade and a series of pedestrian bridges were successively built up.

In Kallang Basin, the Tanjong Rhu area was transformed from a highly polluted shipyard area into a prime waterfront residential district, while Marina Bay was to become the centre stage for Singapore's global city ambitions, and the new symbolic heart of the city from the 2000s onwards.

MARINA BAY
MASTER PLAN

KALLANG BASIN
MASTER PLAN

Master plans for Marina Bay and Kallang Basin as part of 1989 Urban Waterfronts Master Plan.

Image courtesy of Urban Redevelopment Authority.

Enhancing Sense of Culture and Identity: The Civic and Cultural District Master Plan

Following the 1986 Conservation Master Plan, the Draft Master Plan for the Civic and Cultural District was prepared in 1988 to provide guidance for the revitalisation of the historic area that housed the most important government buildings from the colonial era, including landmarks such as the Supreme Court and City Hall.

The strategic location and heritage of the district called for a comprehensive review to bring out its distinctive historical qualities, and to enhance its relationship with adjacent areas such as Orchard Road, Marina Bay and the Singapore River. Most importantly, the plan provided a physical framework with which to anchor a "Cultural Master Plan"[131] by introducing new cultural venues such as museums and art galleries to the district.

The plan reflected the shift in development priorities from the 1980s towards intangible values that had less to do with infrastructural or economic concerns. Key cultural amenities were built up in the district over time, including several public museums housed within historic buildings such as the Singapore Art Museum, and modern cultural icons such as the Esplanade Theatres.

A PRAGMATIC, INNOVATIVE APPROACH TO ACHIEVING QUALITY AND IDENTITY

The move in the 1980s towards enhancing the quality and identity of the urban environment presented a markedly different set of objectives. Yet the approaches taken to achieve these outcomes were similar. They continued to strike the delicate balance between private and public effort that had shaped urban redevelopment since the 1960s.

Urban conservation, in particular, involved trade-offs between heritage objectives championed by the public and people sectors, and development needs driven by the private sector. Centre for Liveable Cities Executive Director Khoo Teng Chye explained Singapore's unique approach to urban conservation:

> *"A balance must always be struck, because we still have to develop. There are also constraints, so we [have] still got to find creative ways, we cannot take too purist an approach. You've got to be pragmatic."*[132]

This element of creativity anchored by pragmatism allowed Singapore to overcome the constraints and challenges of redevelopment. It remained characteristic of Singapore's approach to urban redevelopment through the years.

CHAPTER 6

CLEARING THE FOREST OF RULES: PLANNING AND DEVELOPMENT SYSTEM REFORMS

> Up to the late 80s, we were very action-oriented. Our focus was on delivering the housing programmes as quickly and efficiently as possible.... It was only around the early 1990s, after infrastructure was no longer an urgent need, that we became more systematic: reviewing the Concept Plan and the Master Plan, restructuring the bureaucracy to place URA in charge of overall planning." [133]

Khoo Teng Chye, former CEO Urban Redevelopment Authority

Despite the success of private sector participation in urban redevelopment since the 1960s, a major property downturn during the 1980s exposed inadequacies in the urban planning and development system. In 1986, then-Member of Parliament Tan Soo Koon asserted that the Urban Redevelopment Authority (URA) had been acting like "the banker in the casino", profiteering from the private sector by selling cheaply acquired land at prices inflated by expensive development charge rates during the property boom, leaving developers mired in debt when a subsequent downturn created a property glut.[134]

Tan's assertions were among the many questions posed in parliament during that period regarding URA's role in urban development.[135] These were refuted by then-Minister of National Development (MND),

Teh Cheang Wan, who explained that government action had been mitigating the negative implications of property market cycles by calibrating the availability of land through land sales. Despite Teh's explanations, the parliamentary exchanges highlighted the general lack of clarity on the government's role and intentions with regards to urban development.

A "FOREST OF RULES"

This uncertainty stemmed from the convoluted urban planning and development system of that time. Former CEO of URA Khoo Teng Chye recollected that the then Permanent Secretary (PS) of the Ministry of National Development (MND), Ngiam Tong Dow, described the system as a "forest of rules."[136] Many development-related decisions, such as the amount of development charge imposed, were formulated on a case-by-case basis. The allowed land uses and development intensity were also not clearly communicated in the statutory master plan. These problems stood in the way of the government's intentions to facilitate greater private sector involvement. With the intensification of urban development over the years, there was an urgent need for clearer and more transparent rules to effectively guide private developments.

In 1986, Teh committed suicide after being investigated for corruption relating to development-related bribes. The scandal triggered sweeping changes in urban development policies. The MND, under the new leadership of Minister S. Dhanabalan and PS Ngiam, led a series of reforms to enhance efficiency and transparency in the system.

STREAMLINING AND INTEGRATING PLANNING FUNCTIONS

Merging the URA and the Planning Department (PD)

One key change was introduced in 1989 when URA merged with the Planning Department (PD) and the Research and Statistics Unit from the MND. The property management arm of the URA was hived off to form a new real estate company, Pidemco, while the new URA was to focus on urban planning. Then-Minister of National Development, S. Dhanabalan, highlighted the benefits of the merger:

> *"First, it streamlines planning functions. The URA is currently the conservation authority and the planning agency for the Central Area, while the Planning Department is the planning authority for the rest of the Island. Through the amalgamation, the planning and development control functions will be centralised under a single authority.*
>
> *Second, it facilitates the sharing of expertise. With the amalgamation of URA's expertise in Central Area planning, particularly in urban design, and Planning Department's experience in strategic planning, there will be better coordinated planning for the whole island."*[137]

An Integrated, Island-Wide Approach to Urban Planning

The 1963 United Nations "KAK" (Koenigsberger, Abrams and Kobe) Team had noted the importance of an integrated approach for Singapore's development:

> *"The first principle should be the acceptance of Singapore island and Singapore city as one unit. We must look at the island as an urban complex which includes essential open spaces rather than as a province or county containing two different elements, a town and its rural hinterland."*[138]

Prior to the 1989 merger, the development of Central Area and the rest of the island had been planned separately by the URA and the PD respectively. This perpetuated the lack of integration between the development of the city centre and suburban areas — a disconnect that had persisted since colonial times.

The organisational merger brought about an integrated island-wide approach to urban planning and development, effectively dissolving the arbitrary divide between the Central Area and the rest of the island. This facilitated urban growth in the other parts of the island in subsequent decades, and allowed for continued redevelopment of the Central Area to be effectively coordinated with development in the rest of the island.

The 1989 Act also established the URA as the national planning and conservation authority. Although development and conservation are often seen as conflicting functions, the dual, integrated role of URA as both the national planning authority as well as the conservation authority was regarded as a means to strike a balance between maximising the use of land for development purposes and ensuring that a sense of history is retained within land scarce Singapore.[139]

ENHANCING TRANSPARENCY OF THE URBAN PLANNING SYSTEM

Prior to reforms introduced from the late 1980s to the 1990s, the urban planning and development system was highly opaque and inefficient in communicating planning intentions to the private sector. To give the private sector certainty and to facilitate their greater involvement in urban development, the system had to become more transparent.

Development Charge (DC) — Creating Certainty for the Private Sector

Since a review in 1980, the URA would determine the development charge rates of land based on either the prescribed rates, or on the valuation provided by the Chief Valuer, whichever was higher. The property boom in 1980-81 meant that the Chief Valuer's valuation was often the higher amount. This not only obliged the Chief Valuer to conduct numerous case-by-case valuations for each development application, taking up time and effort, but also created uncertainty for the developer.

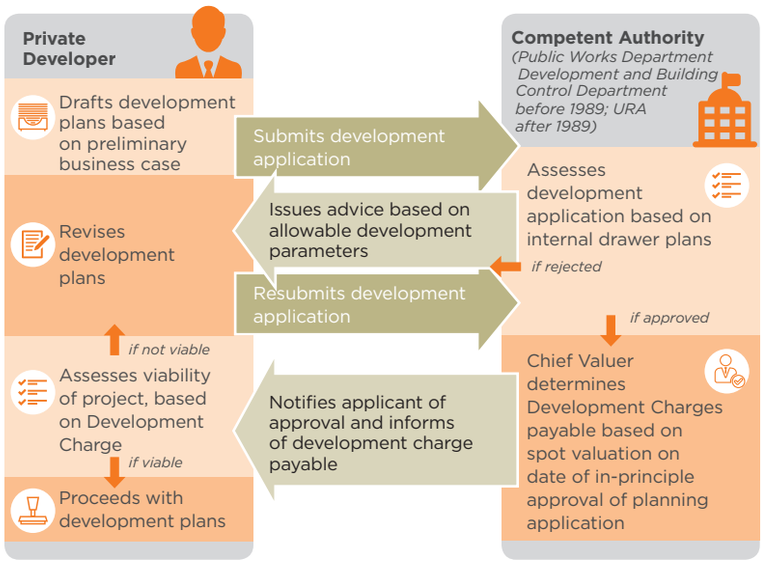
This convoluted process spurred the MND to review the development charge system in 1989. Lim Hng Kiang, then-Deputy Secretary (DS) of MND, described the review:

> *"... We went through the consultation; the property people thought that our initial proposal was too broad-based. They wanted smaller zones, but the concept was that if I can tell you ahead of time what your development charge [is], he [can] say it's up to you to decide when you want to undertake the development... it removes a lot of the uncertainty and [changed] the case-by-case approach into something that's more forward looking, more certainty."*[140]

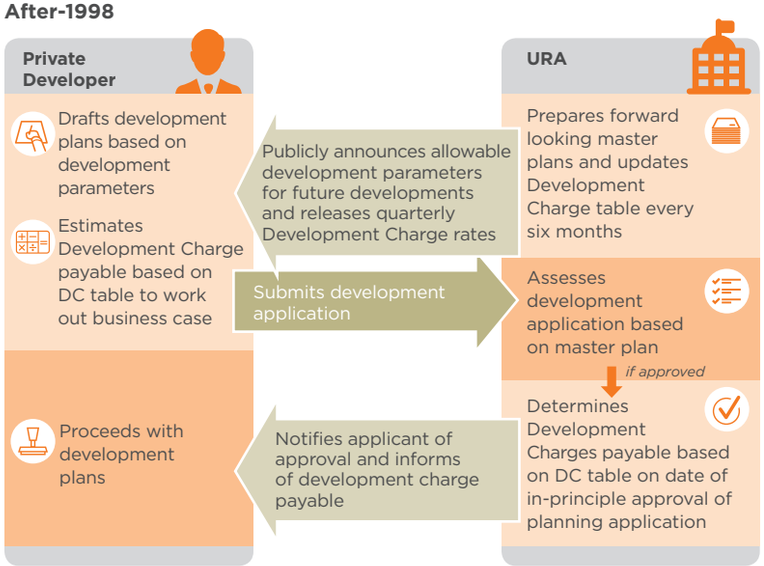
Following the 1989 review, the DC rates became more transparent, and became based on a standardised table which detailed the rates as well as the intended use and its geographical sector. The table would be revised by the Chief Valuer every six months and made public, to allow developers to calculate the amount of DC expected to be levied for their proposed developments. With that in place, private developers were then able to estimate costs and assess risks even before their development applications were approved.

Exhibit 3:
Enhancing Transparency in the Development Application Process

Pre-1998



After-1998



Development Guide Plans (DGPs) — Creating a Future-Oriented Master Plan

The 1958 Master Plan, and subsequent master plan reviews until the 1990s, served only to update developments that existed or had already been approved. In assessing plan submissions, planners were guided by a separate set of internal "drawer" plans regarding future developments for their respective areas of purview. This meant that the private developer had to submit a development application just to ascertain the allowable development for his property.

The URA sought to address this soon after the completion of the 1991 Concept Plan, widely regarded as Singapore's watershed plan (See Chapter 7 — Growing a Global City). The DGPs translated the broad intentions of the Concept Plan into detailed local plans, with the whole island divided into 55 DGP areas. Future land use, development control and road network information were shown for each of the DGP area, together with any supporting public amenities that had been planned. This was a more systematic and transparent means of communicating future planning intentions. The intention was to create DGPs for the entire island and form a new forward-looking statutory Master Plan.

The precursor to the DGPs was in fact the detailed guideline plans URA had been preparing for the Central Area till then. Lim Hng Kiang reflected on the concept behind the DGPs:

> *"... if your conservation plan can be forward-looking, telling us what you want to do and how you want to evolve and develop, then surely we can do that for other plans. So we used the experience of the conservation plans because URA was an extremely well run organisation even then and they were very professional when they did the conservation master plan, they practically surveyed every unit and they could come up with the guidelines of what they would want the developer or the owner to do...*
>
> *If that can be done, why can't we do so for the rest of the island? After all Singapore is not that big. We decided that we will divide the island into certain areas..."*[141]

These DGPs were eventually completed in 1998, following which the new Master Plan was gazetted. The DGPs and the subsequent Master Plans were clearer and more detailed — a radical departure from previous Master Plans. This gave the private sector greater certainty on the feasibility of their development proposals, contributing to a more efficient urban development system.

Exhibit 4:
Preparation of Detailed Development Plans in Singapore over the Years

Diagrams for illustration purposes only

Pre-1979

KEY DEVELOPMENT AREAS OUTSIDE OF CENTRAL AREA
By development agencies
e.g. HDB, JTC, etc.

KEY REDEVELOPMENT AREAS IN CENTRAL AREA
By URA

Development plans were prepared to guide the implementation of "action plans" by agencies including URA (for redevelopment areas in Central Area), HDB (for public housing towns) and JTC (for industrial developments).

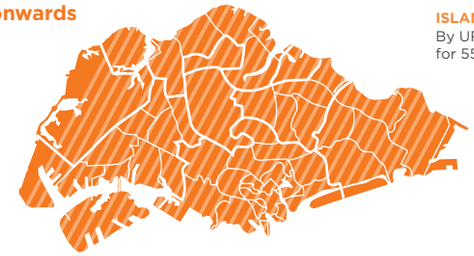
1979 – 1989

KEY DEVELOPMENT AREAS OUTSIDE OF CENTRAL AREA
By development agencies
e.g. HDB, JTC, etc.

KEY REDEVELOPMENT AREAS IN CENTRAL AREA
By CAPT, led by the GM of URA with representation from agencies involved in planning and development.

The lack of a central coordinating body for private and public developments within and around the densely built up Central Area led the MND to set up the Central Area Planning Tea (CAPT) in 1979 to guide planning efforts and coordinate developments in the Central Area.

1989 onwards



ISLAND WIDE
By URA – Development Guide Plans for 55 planning areas.

Building on URA's efforts and expertise in comprehensive planning for the Central Area, the entire island was divided into 55 planning areas with future development plans prepared by URA for each area. These Development Guide Plans (DGPs) provided a more systematic and transparent means of communicating future planning intentions to the private sector. The DGPs were completed and incorporated into the statutory Master Plan in 1998.

Enhancing the Government Land Sales (GLS) System

Reforms were also extended to the Government Land Sales programme, which had been playing a vital role in Singapore's urban development since its inception in 1966. By the 1990s, urban growth and increasingly sophisticated development requirements meant that the programme had to be changed substantially.

Until the 1980s, the two key considerations in the award of sites in tender exercises had been design concept and price. The premium placed on design during the 1970s and 1980s meant that the winning scheme tenderer for a particular site might have proposed a very good design but might not have in tandem, offered the highest price bid. Under the scheme in place at the time, the successful tenderer was allowed to top up his bid to the average of the three highest bids or to a negotiated price later on upon being awarded the tender. This flexibility that was built into the system had, arguably, contributed substantially to the architectural design culture in Singapore. However, Choy Chan Pong, Senior Advisor of URA, reflected that this procedure, whereby tenderers with good designs were allowed to top up their bids, could be perceived by the market as not being transparent enough.

GLS Reforms in the 1980s

The practice of emphasising design over price was discontinued after 1989, when then-Permanent Secretary of MND, Ngiam Tong Dow, initiated a review of the system. Changes were made to improve the "transparency, credibility and reliability" of the GLS system. During the 1990s, the system swung to the other extreme and developers only needed to submit the tender price in GLS tenders and not the proposed design. This reflected a renewed emphasis on transparency during this period. For sites at important or prominent locations, the design of the development would be supervised by an Architectural Design Panel.

The reforms to the GLS system did not end with the efforts in the 1990s. New tender mechanisms were created in the 2000s to keep up with development needs, which eventually saw a return to an assessment of good design alongside a robust transparent process (see Chapter 7 — Growing a Global City).

DYNAMIC URBAN GOVERNANCE: THE DRIVER FOR SYSTEMIC REFORMS

The series of reforms introduced in the late 1980s to 1990s have since become an integral part of Singapore's planning and development regulatory system. For the public sector, these changes enhanced the government's role in guiding urban development; for the private sector, transparent rules and clearer information enhanced certainty for their investments, thereby encouraging greater participation.

These reforms were no less radical than the changes introduced during the early days of Singapore's self-governance. They highlighted the dynamic yet pragmatic nature of Singapore's urban governance, which strove to keep up with rapidly changing conditions by periodically rethinking its approaches and continually enhancing its systems and processes.

CHAPTER 7

GROWING A GLOBAL CITY

> To remake the economy and attract talent, we've also got to remake our city. This has to be a city which is full of life and energy and excitement, a place where people want to live, work and play..." [145]

Prime Minister Lee Hsien Loong, National Day Rally 2005

Urban development in Singapore took on a global dimension after the 2000s. With increased competition for international investment and talent, the need for Singapore to remain competitive among the world's best cities became not only an aspiration, but a vital necessity for the city-state's long-term survival. As then-Minister for National Development, Mah Bow Tan stressed, "Singapore must rise to be a global city or become irrelevant."[146]

Singapore's ambition to become a global city called for state-of-the-art amenities and infrastructure. The city had to stay attractive and liveable. Increasing urban density had to be balanced with an emphasis on the built environment and architectural design, with greater focus given to the "softer" aspects of urban development, such as place management and public engagement.

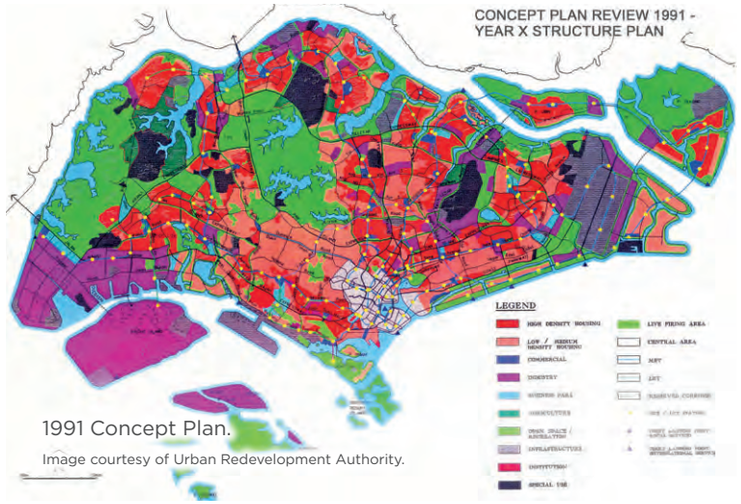
TOWARDS A TROPICAL CITY OF EXCELLENCE — THE 1991 CONCEPT PLAN

"No homeless, no squatters, no poverty ghettos, no ethnic enclaves, all achieved by 1985... the mood [in the government] in those days was that we already had made a big leap forward, so we can no longer live with the 197[1] Concept Plan. And therefore, we had to have a major rethinking of our master plan. That was the motivation for the 1991 [Concept] Plan."[147]

Dr Liu Thai Ker, former Chief Planner and CEO Urban Redevelopment Authority

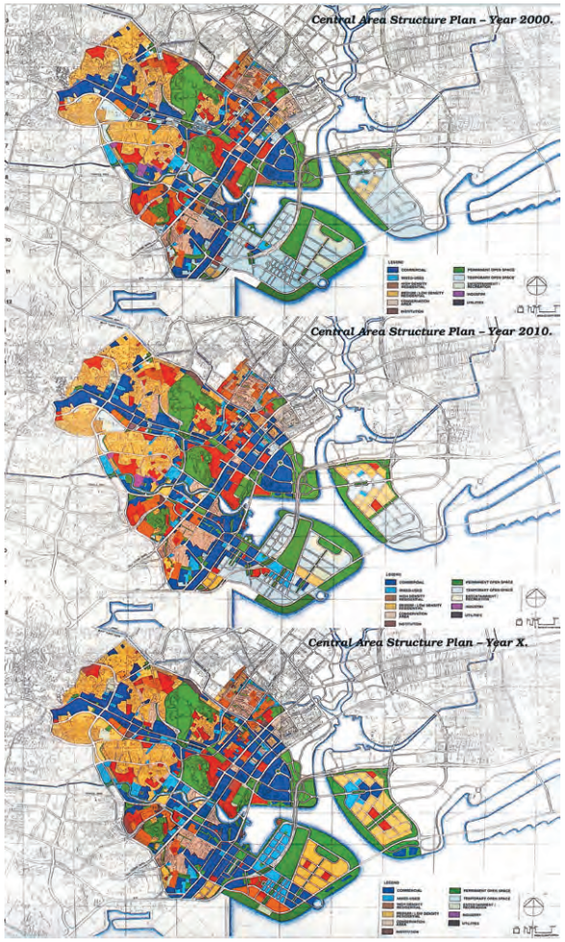
With the bread-and-butter issues of urban living resolved by the late 1980s, the government began to set sights on "living the next lap."[148] The 1991 Concept Plan guided Singapore towards a new phase of urban development; it was the first to be undertaken by local planners independent of foreign expertise. Led by Dr Liu Thai Ker (the first Chief Planner and CEO of the Urban Redevelopment Authority after the merger with the Planning Department in 1989), the 1991 Concept Plan laid out a bold vision to transform Singapore into a "unique tropical city of excellence." Dr Liu said:

"There was this desire to have a quantum leap beyond the '71 Concept Plan, so we had to have a new tagline that is unique, because every city wants to be unique. 'Tropical', because we have to reflect our geographic condition."[149]



1991 Concept Plan.
Image courtesy of Urban Redevelopment Authority.

The 1991 Concept Plan sought to "create an enduringly beautiful and unique Asian city", while ensuring that Singapore remained economically competitive and that domestic functional needs were satisfied.[150] The Plan elaborated on planning efforts since the late 1980s to enhance the identity and quality of the city through conservation and urban design. The Plan further developed the Central Area Structure Plan, catering for the growth of the Central Area beyond the Year 2000 towards the future.



Central Area Structure Plan for Year 2000 and beyond.

Image courtesy of Urban Redevelopment Authority.

Significantly, the 1991 Concept Plan called for a concerted push towards decentralisation, through the development of Regional Centres that were strategically located around the island and connected by the Mass Rail Transit (MRT) system and a comprehensive network of expressways. That was to allow for the prime land within the Central Area to be developed — without the risk of overcrowding — into "an international centre for commerce and finance — the nerve centre of our future economic development."[151]

DEVELOPMENT OF MARINA BAY

With most of the areas within the Central Area redeveloped by the 1990s, future development within the city, as stipulated in the 1991 Concept Plan, was redirected to focus on the Marina Bay area as a natural extension of the traditional Central Business District (i.e. the Golden Shoe district). Although most of the developments in the district were only realised in the 2000s, the planning of Marina Bay had already started back in the early 1970s — a testament to the government's long-term planning and implementation.

Creating Room for Growth — Foresight in Planning

Land reclamation at Marina Bay was initiated as early as 1971 when the Benjamin Sheares Bridge was constructed, to create parkland and open green space for the city centre.[152] There was no intention at that time to extend the city onto the reclaimed land at Marina Bay, as the focus then was still on urban renewal within the city centre.

East Coast Reclamation Project in 1972.
This project stretched from Tanjong Rhu, just outside the Central Business District, eastwards to Bedok.
Image courtesy of Housing and Development Board.

In 1977, following a study by the URA, the government announced an additional 360 hectares of land reclamation at Marina Bay. This created a total of 578 hectares of "unencumbered" reclaimed land "large enough to enable the development of a new city for the future."[153] The expanded reclamation plans presented a huge opportunity to seamlessly extend the financial district, providing substantial capacity for future urban growth to support Singapore's economy.

Long-term planning continued even as infrastructure was being built in Marina Bay. The Common Services Tunnel (CST) was a strategic piece of infrastructure that was implemented before any other forms of development began. This tunnel consolidated all underground services — including power, water, telecommunications, and even a district cooling system — within an integrated connected network of underground tunnels. This rendered the infrastructural services easier to maintain and more reliable. Furthermore, land that might had been initially set aside for underground infrastructural services could be released for development.

Reclaimed land at Marina Bay in 1985.

Image courtesy of Urban Redevelopment Authority.

Multiple Development Objectives for the Bay

Beyond the economic imperatives, Marina Bay was also envisioned as a "Water Padang"[154], a focal point for the city-state where nationwide celebrations such as National Day and New Year's Eve could be held. The multifaceted nature of Marina Bay took on another dimension in 1987, when then-Prime Minister Lee Kuan Yew foresaw the potential for creation of a future freshwater reservoir at the heart of the city:

> *"In 20 years, it is possible there could be breakthroughs in technology, both anti-pollution and filtration. Then we can dam up or put up a barrage at the mouth of the Marina, the neck that joins the sea, and we'll have a huge freshwater lake."*[155]

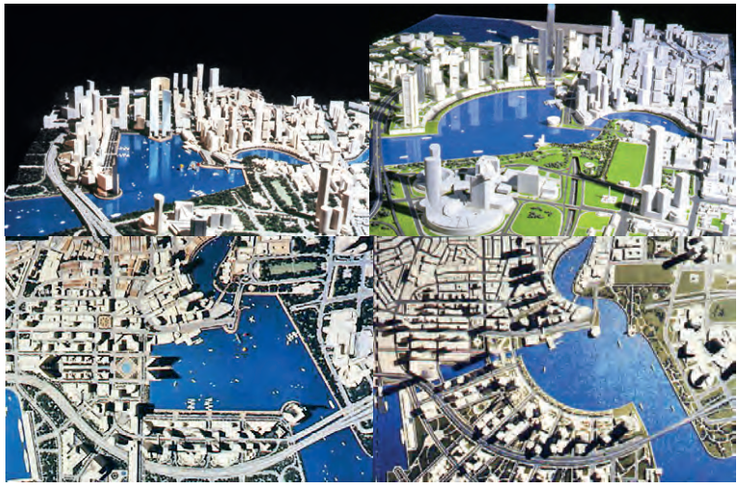
The reservoir would not only enhance Singapore's water security by boosting its water supply, but would also serve as a form of flood control for the central parts of Singapore. Improvements in membrane technology eventually allowed this vision to be realised. With the completion of the Marina Barrage in 2007, Marina Bay became part of an urban reservoir which included the Singapore River, by then a bustling entertainment district.

Realising Development Objectives through Urban Design

> *"Marina Bay didn't come about as it is.... Every sale site that goes out, URA prepares urban design guidelines. Things don't just happen, they have to be planned and actually guided and steered."*[156]
>
> Dr Cheong Koon Hean, CEO Housing and Development Board and former CEO Urban Redevelopment Authority

The creation of Marina Bay as a waterbody was a strategic decision made to leverage on the economic potential of urban waterfronts.[157] The land premium for a waterfront location was estimated to make up for the loss of buildable land area that could otherwise have been reclaimed in place of the Bay. Similarly, the decision to construct the 101 hectares Gardens by the Bay project in 2005 was made only after careful consideration of land value enhancement and public benefits to the surrounding land parcels. It was assessed that the payoffs would outweigh the opportunity cost of land that could otherwise have been developed.

In order to fulfil the many development objectives of the Marina Bay area, emphasis was placed on urban design. Two internationally renowned architects, I. M. Pei and Kenzo Tange, were engaged to develop the conceptual master plan of the Bay in 1983. Pei's flexible grid layout was adopted, with subsequent reviews of the plan based on his original grid concept.



Proposed master plans for Marina Bay by I. M. Pei (left) and Kenzo Tange (right).

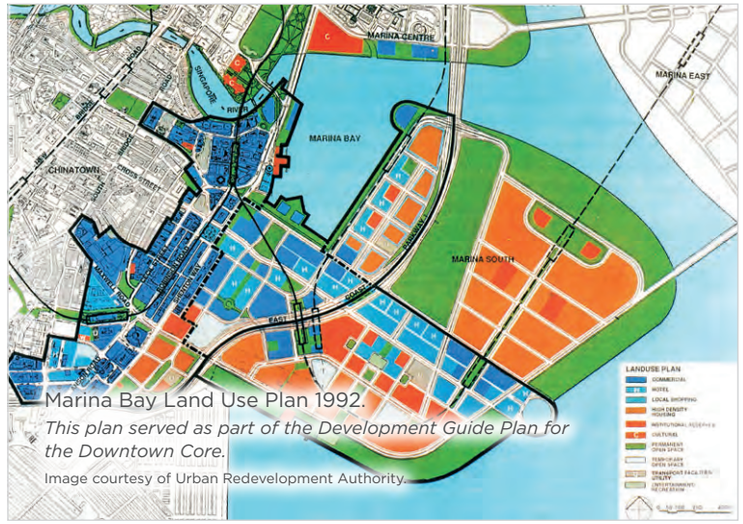
I. M. Pei's plans were subsequently adopted.

Image courtesy of Urban Redevelopment Authority.

The URA also studied similar urban waterfronts around the world, such as Sydney's Circular Quay and Baltimore's Inner Harbour. The final profile and size of Marina Bay was the product of a series of painstaking reviews and benchmarking exercises to determine the appropriate scale of its waterfront developments.

The URA also ensured that the private developments built at Marina Bay were well coordinated and implemented in line with overall urban design intentions, through detailed guidelines stipulated in the land sale conditions. The signature Marina Bay skyline was achieved through guidelines coordinating the height limits and profiles of each development in relation to the larger environment. This created the unique "stepped" profile of the buildings with progressively lower buildings towards the waterfront.

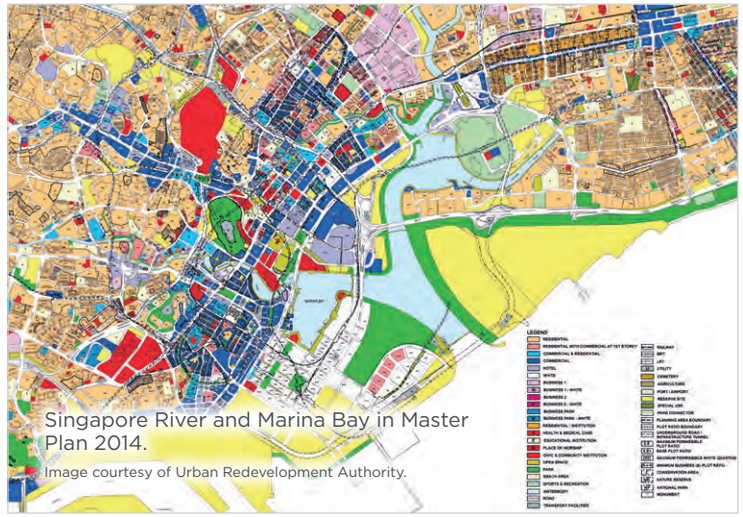
The guidelines also included safeguards for public access, such as through-block links connecting private developments to the waterfront through designated corridors. The construction of the public waterfront promenade, which meanders seamlessly from the Singapore River, ensured that the Marina Bay would become an accessible, people-friendly destination, as envisioned.



Marina Bay Land Use Plan 1992.

This plan served as part of the Development Guide Plan for the Downtown Core.

Image courtesy of Urban Redevelopment Authority.



Singapore River and Marina Bay in Master Plan 2014.

Image courtesy of Urban Redevelopment Authority.

Flexibility in Planning

Rigorous urban design controls and guidelines were complemented with planning flexibility. Plans for Marina Bay were actively reviewed by the URA to "adapt to inevitable changes in economic and market conditions, lifestyle and technology trends"[158], and were hence neither rigid, nor cast in stone.

The URA actively sought out new ideas and input when developing Marina Bay. In 2003, renowned USA-based architectural and planning consultancy Skidmore, Owings & Merrill were engaged to review the Master Plan for Marina Bay. One of their key recommendations was to further refine the grid road network to allow flexibility in parcel sizes, so that the land could be sold in smaller or bigger parcels, depending on market conditions. Ideas proposed by the consultancy firm were subsequently incorporated in URA's 2003 Master Plan.[159]

Flexibility also extended to planning policies. White-Site[160] zoning, for example, was introduced in Marina Bay in 1997 to give developers more room to decide the use for their land parcels in response to changing market trends and demands.

Communication as the Key to Realising the Vision

The successful realisation of Singapore's development plans over the long term demanded both a strong strategic vision and a pragmatic approach to its implementation. For a major development area such as Marina Bay, the government took particular pains to articulate and communicate the vision for the new growth areas to the private sector, whose participation was key to its realisation. Philip Ng, CEO of Far East Organization — Singapore's largest private developer — highlighted Singapore's strengths in this area:

> *"The [urban development in the] 2000s is characterised by the fact that Singapore began to know how to sell itself because we were no longer pitching to a local or a regional audience but to an international audience.... In fact, today in Singapore, there is no bad site."*[161]

Since the development of the area was first announced in the 1970s, the government had taken the lead to promote and articulate a clear, bold vision for urban development in Marina Bay. URA's marketing efforts for Marina Bay at international real estate trade shows gathered pace after 2000, placing the area on the world map within a decade. While the Master Plan has since been regularly updated in response to evolving needs, the overall vision for Marina Bay has remained consistent.

FROM HARDWARE TO *HEARTWARE*

> *"Planners slowly realise that it was very important to create software and 'heartware'. In Singapore, we are very, very good at creating infrastructure. We are probably one of the best 'infrastructure-d' cities in the world. But I think a city is more, beyond hard, built form. So we started to introduce the concept of place-making and place management."*[162]
>
> Dr Cheong Koon Hean, CEO Housing and Development Board and former CEO Urban Redevelopment Authority

In addition to good urban infrastructure and a liveable built environment, "software" factors such as urban vibrancy and people's active involvement in urban development have been vital to Singapore's global city ambitions.[163] These have contributed to Singapore's distinct character and competitive advantage, but they are qualities that infrastructural hardware alone cannot provide.

Place Management — Creating a Platform for Software

As developments in several key districts in the Central Area matured in the early 2000s, the URA and Singapore Tourism Board (STB) initiated place management efforts to create sustained buzz, coordinating the involvement of business stakeholders within districts such as the Singapore River, Orchard Road and Marina Bay:

> *"We started to see developments happening along the waterfront and there's a small precinct or clusters of development, shaping up in the Bay. But it's very quiet. It's just a lot of construction activities; completed buildings are pure offices. And the mission for Marina Bay has always been to be a people's bay, a place where people from all over Singapore would want to come to. We thought there's a need to also programme activities, and bring life into a new area like Marina Bay. Later on, we learnt from this exercise that it's equally if not more important to think about, it even for the existing built-up area... what we should be doing to help activate the area, to breathe life into the area."*[164]
>
> Lim Eng Hwee, Chief Planner, Urban Redevelopment Authority

Just as the government had to provide physical infrastructure to support development, the URA also had to create platforms for businesses and stakeholders to organise collaborative events and activities. In Marina Bay, the URA set up the Marina Bay Development Agency (MBDA) to focus on marketing, promotions and place management activities for the district. The MBDA also partnered with other agencies and the private sector to organise key events such as the New Year's Eve Countdown and urban marathons.[165] The intention of staging these events was to nurture a sense of ownership among the stakeholders and businesses who would eventually take the lead in sustaining a level of activity in Marina Bay on their own.

Public Engagement — Involving Stakeholders in the Planning and Development Process

Prior to the 1980s, public engagement pertaining to urban redevelopment was mostly limited to public education through exhibitions. Even then, however, ground-up initiatives such as the Singapore Planning and Urban Research Group (SPUR)[166] were especially proactive in providing alternative ideas to the government's development proposals.

Koh Seow Chuan, one of the founding members of SPUR, reflected that despite the government's heavy-handed image, then-Prime Minister Lee Kuan Yew was "prepared to sit back and listen to others who may disagree with what the government is doing".[167] SPUR's efforts influenced important decisions, such as the shifting of the airport to Changi.[168] However, those were rare exceptions. By and large, the decision-making process for urban development throughout the 1960s to 1980s was top-down. This was partly due to the urgency of addressing pressing issues such as housing and employment.

The conservation programme of the 1980s saw the government adopting a more open approach. Planners sought views and suggestions from professional communities in the private sector, such as the Singapore Institute of Architects and the Singapore Institute of Planners,[169] before releasing guidelines for conservation areas.

Public engagement efforts have since increased progressively, in tandem with growing interest among a better educated and more vocal citizenry who want to participate in the decision-making process with regards to urban development. URA planners had consulted with different communities when preparing for the Development Guide Plans of the 1990s as well as for the 2001 Concept Plan — the first time the public had been involved at the concept planning stage.

Despite tensions arising from development pressures — particularly between 2001 and 2012 when population increased from 4.1 million to 5.3 million[170] — public engagement in Singapore has never resulted in stalemates, which often occurs in other countries when governments try to implement difficult decisions in the interests of long-term development. Tan Chuan Jin, Acting Minister for Manpower and previous Senior Minister of State for National Development, clarified the role of public engagement in Singapore's context:

> *"The government ought to see engagement as an important process, but it is not a blank cheque to engage to death. As a leader, your job is to create consensus if you can. If not, at some point you have to make choices and some of these aren't popular, aren't easy.... But fearing you're not getting it right shouldn't freeze you from action because I think that is a dereliction of duty."*[171]

Public engagement remains a relevant and important part of the current planning and redevelopment process:

> *"The general shift towards engaging the public, understanding their needs and trying to address them, has been entrenched into the whole [planning] process. Going forward, we have to continue to fine-tune the system of engagement to make it even more productive without slowing down the whole process too much... I think we are expecting that in future, there will be more of such exercise, it probably will slow down us a little bit, but it cannot be like in other cities, we can't afford that."*[172]
>
> Lim Eng Hwee, Chief Planner, Urban Redevelopment Authority

CREATING THE EDGE FOR A GLOBAL CITY

Singapore's urban transformation at the turn of the 21st century was very much a product of the strong partnership between the public and private sectors that had been established since the late 1960s. As Singapore is catapulted into the league of global cities, the Central Area has become the global face of the city-state, with districts such as Marina Bay poised to play a key role in maintaining Singapore's international relevance.

Building a global city is also about going beyond the physical, and focusing on what attracts people. Globe-trotting cosmopolites seek vibrancy and dynamism. Citizens and residents want to share in the public decision-making process, and to see Singapore's unique local identity preserved. The government plays similar roles in both the "hardware" and "heartware" of city-building: it initiates platforms and programmes to kick off the process; it convenes stakeholders who can and want to contribute; and it mediates between different developmental demands in the national and public interest.

CHAPTER 8

CONCLUSION

GUIDING PRINCIPLES OF SINGAPORE'S URBAN REDEVELOPMENT

The redevelopment of Singapore's Central Area — from a chaotic "basket case of urbanisation gone wrong"[173] to the centre stage of a global city — encapsulates Singapore's unique approach to urban development, which balances economic, social and environmental goals within a land scarce context. While this process has evolved since the early days, certain fundamental principles have been consistently maintained through the years.

Dynamic Urban Governance: Visionary and Pragmatic Leaders, Sound Institutions and Effective Legislative Mechanisms

One of the first actions taken by the Singapore government after self-governance was the establishment of an effective system of urban governance. This included setting up sound institutions, creating effective legislative mechanisms, and formulating a long-term planning framework.

The impact of these measures was most profoundly evident in the early years of Singapore's self-governance. Inheriting the desperate housing situation of the colonial years, Singapore's pioneers exhibited the political will to "break the back of housing shortage." Action-oriented institutions such as the Housing and Development Board (HDB), empowered by new legislation to provide the legal muscle for land acquisition and redevelopment, proved decisive in resolving the housing shortage crisis — all within the first five years of self-governance.

The effectiveness of this dynamic approach to governance continued in later years. Bold reforms were introduced in the 1980s and 1990s to engender greater transparency and efficiency in the urban planning system. These paved the way for visionary ambitions at the turn of the 21st century that have transformed Singapore into today's global city.

Integrated Long-Term Planning Framework

Singapore's rigorous long-term planning framework, which had been built up over the decades, has enabled the government to effectively manage the city-state's different development objectives over the years. An integrated planning framework, made possible by the merger of the Planning Department and the Urban Redevelopment Authority (URA) in 1989, allowed the redevelopment of the Central Area to be more tightly coordinated with the development of land use across the rest of the island:

> *"If you say, 'I want to generate 100,000 jobs over next five years, outside of city centre, what it means is you [have] got to stop all development in city centre.' Not only that, you [have] got to decant offices from city centre, [and] you know that's not realistic. So everything is linked and related to one another. In our case, we are able to have this comprehensive look at the issue, so we do things in a more integrated way. And I think that would have to continue, going forward."*[174]
>
> Lim Eng Hwee, Chief Planner, Urban Redevelopment Authority

Balancing economic, social, heritage and other priorities, this holistic approach to urban planning is most evidently demonstrated in the transformation of the Singapore River-Marina Bay area from a slum-filled, heavily polluted urban waterway to a successful waterfront entertainment and commercial district today.

Evolving Role of the State: From Purposeful Intervention to Facilitating Development

Singapore's blend of a proactive government with a vibrant real estate market is unique. The state's extensive role in urban development had been empowered by its legislative ability to compulsorily acquire private land, in order to amalgamate and control land resources. This had allowed the government to overcome land constraints in the early years, paving the way for comprehensive redevelopment.

State intervention in Singapore has always been purposeful and discretionary. The government intervenes primarily to overcome significant encumbrances to redevelopment; where encumbrances have been minimal, the government would facilitate redevelopment by applying a more market friendly approach. Since the late 1980s, the government has largely moved away from direct intervention, towards facilitating development by constructing infrastructure and communicating planning intentions.

The state also looks beyond only the purely economic aspects of development. A comprehensive building programme had provided displaced residents with alternative accommodation, and businesses and hawkers with fresh premises during the early years. Such a programme had allowed the benefits of redevelopment to be shared not only by commercial developers but also by the man in the street, which greatly minimised the social impact and backlash of urban renewal programmes — a challenge that often plagues cities elsewhere.

Private Sector Involvement: A Transparent, Market-Oriented and Innovative Approach

The private sector has played a vital role in Singapore's urban redevelopment. The Sale of Sites Programme, which started in 1966, has served as a transparent and market-oriented means to harness private sector resources for urban redevelopment. This approach had distinguished Singapore's experiences from many other countries at that time, where governments would negotiate with large developers, often in an opaque fashion, to redevelop urban sites. In later years, as the Singapore government sought to facilitate greater private sector participation in urban development, the emphasis on transparency and market-friendly policies became even more important.

While transparency has become a hallmark of Singapore's approach to planning and development, it has also constrained flexibility in redevelopment in certain ways. As explained by Chief Planner Lim Eng Hwee:

> *"Transparency cuts both ways. Before the DGP (Development Guide Plan) days, before we had the new Master Plan system, this was very opaque, we just do ad hoc re-zoning. Every case comes in, you evaluate, you allow it, you will change the Master Plan. [This approach] has its upside — complete flexibility.*
>
> *Now that we have the transparency, you try to look at long term and put up all the land use and plot ratio on the Master Plan. When you now want to make changes, it becomes very difficult.... If I want to change the whole housing area into a mixed used district for example, it's going to be tough! So this is something we need to think along in the future."*[175]

Lim however stressed that transparency remains vital. To overcome these limitations, planners need to continue to innovate, and to engage the private sector regularly, in order to realise redevelopment and planning objectives.

LOOKING AHEAD: CHALLENGES OF BEING A GLOBAL CITY-STATE

> *"Do we want to be a global city, or should Singapore be a regional centre?"*[176]
>
> Goh Chok Tong, Emeritus Senior Minister

Fresh challenges have surfaced with Singapore's transformation into a global city. Perhaps more than any other city in the world, Singapore — being a city-state — faces the unique dilemma of having to embrace globalisation as well as look after the full spectrum of national interests at the same time.

Balancing Identity and Development

One of Singapore's most acute challenges is the need to preserve the identity of the city while optimising the use of prime urban land to provide for future growth. A limited land bank, a growing population and development pressures[177] will only intensify this challenge in the years to come.

There is now greater awareness that the retention of urban character calls for a more holistic approach:

> *"Identity is a lot more complex. It's not just about conserving buildings, but what it means to the people.... Something that is as new as five, 10 years could mean a lot to you, so it's very hard to pinpoint. And this is where I think we need more dialogue with the stakeholders to get a sense of what is important. And given the limitation we have, we probably have to look at what it means more to the majority, rather than a very small group."*[178]
>
> Lim Eng Hwee, Chief Planner, Urban Redevelopment Authority

Acknowledging these nuances, the URA's Identity Plan in the 2003 Master Plan, considered not only the protection of buildings but also how the characteristics of places could be retained by maintaining appropriate development scale and intensity. Public engagement will continue to play an increasingly important role in the rejuvenation of heritage sites, as may be observed in the management of key projects such as the Rail Corridor.[179]

Managing Increasing Diversity, Ensuring Inclusivity

Singapore also has to grapple with the less tangible aspects of urban redevelopment. As a globalised economy, Singapore has seen an unprecedented increase in social diversity since the turn of the 21st century. From 2000 to 2010, the overall proportion of non-residents in Singapore rose from 18.7% of the population to 25.7%.[180] Planners now face the increasingly complex task of providing for the needs of this diverse population ranging from the local born to the transient, the rich to the poor.

The Central Area — with affordable public housing located alongside luxury amenities — presents unique challenges when planning for a diverse population. Relying solely on market forces to allocate land use to the highest bidders for each site may not necessarily produce the diversity and mix of land use appropriate to the character of each place.

Singapore has a strategic advantage in addressing this challenge. Early public building programmes has provided for a wide range of alternative premises for affected residents and businesses. This has led to the retention of significant diversity in the Central Area. As a result, Singapore has been able to avoid the pitfalls of urban renewal faced by many other countries.

Going forward, the government will need to continue to calibrate the delicate balance between social and economic needs in order to ensure that urban redevelopment remains inclusive to all city dwellers. This will also help retain the unique local character of the Central Area at the heart of the city-state, even in the face of globalisation.

MOVING FORWARD

> *"We are, in Singapore, just a city in one country. And the country is the city. We have to keep this city up there, at the same standard as the great cities in the world. That means you have to keep on maintaining a very high standard of performance — not just the government, but also the population; to be able to work together and make the system work. Then you can raise standards gradually, and the level will continually improve, year by year, step by step."*[181]
>
> Lee Hsien Loong, Prime Minister of Singapore

Tensions between Singapore's identities as a global city and a city-state will remain. On the one hand, Singapore needs to continue developing to compete economically with the likes of London and New York; on the other, there is a need to retain as much of its unique character as possible, given that as a nation, it is merely half a century old.

To manage these tensions, the government will not only need to continue to maintain a successful economic partnership with the private sector, but also reinforce the strong social compact it has established with the people since the early years. The latter can be addressed by consciously ensuring inclusivity in urban redevelopment and by actively engaging the local population that has become far more sophisticated over fifty years of independence.

With fresh challenges, new planning and governance tools are also being developed. The Smart Nation Programme, launched in 2014, aims to harness technology to create solutions for improving citizens' lives. URA, for example, developed the ePlanner, a multi-platform, geospatial analytics portal for urban planning, to assist planners with technical planning analysis. This Smart Nation Programme can also potentially empower people and businesses through increased access to data and technology-enabled participatory policy making approaches. By continuing to embrace innovation such as smart technologies, the government will be better equipped to guide and facilitate urban redevelopment as an increasingly dynamic and complex process.

TIMELINE: POLICY DEVELOPMENT AND MILESTONES IN URBAN REDEVELOPMENT

Before 1960

1822
- Sir Thomas Stamford Raffles established a committee to prepare Singapore's first town plan, the Jackson Plan, which outlined the development of a commercial centre south of the Singapore River.

1927
- Singapore Improvement Trust (SIT) set up to address the problem of urban slums and worsening housing conditions.

1958
- Singapore's first statutory master plan approved.

1959
- Self-governance in Singapore.

1960

1960
- SIT dissolved.
- Planning Department (PD) and Housing and Development Board (HDB) set up to take over SIT's urban planning and housing functions respectively.

1961
- Economic Development Board (EDB) set up.

1962
- First UN technical assistance on urban planning by town planning expert Erik Lorange.

1963
- Second UN technical assistance on urban planning by Urban Renewal Team comprising Susumu Kobe, Charles Abrams and Otto Koenigsberger (or commonly referred to as "KAK" Team).

1964
- Singapore Tourism Promotion Board (STPB) set up.
- Development charge introduced in 1964 Planning Bill amendment.
- Urban Renewal Unit set up within HDB's Building Department.

1965
- Completion of HDB's first five-year programme, with 54,430 units built, in contrast to SIT's 23,019 units from 1927 – 1959.

1966
- Land Acquisition Act (1966) introduced.
- Start of urban renewal in Precinct N1 and S1.

1967
- State and City Planning Project initiated as part of UN Urban Renewal and Development Project.
- First Sale of Sites programme.
- Property Tax Order introduced to provide special concessions for site development sales in designated areas.

1968
- Redevelopment of Golden Shoe Financial District with launch of second Sale of Sites.

1969
- Controlled Premises (Special Provisions) Act introduced to phase out rent control for gazetted areas in the Golden Shoe Financial District.

1970

1971
- Singapore's first Concept Plan created as an outcome of the State and City Planning Project.
- Hawker Centres Development Committee set up to relocate street hawkers.
- Reclamation at Marina Bay area initiated to support construction of Benjamin Sheares Bridge.

1973
- Construction of Orchard Road pedestrian mall.

1974
- Urban Redevelopment Authority (URA) set up.

1975
- Introduction of Area Licensing Scheme to limit vehicular traffic volume in the Central Area.

1977
- Singapore River Clean-up initiated by then-Prime Minister Lee Kuan Yew.
- Announcement of additional 360 hectares of reclamation at Marina Bay.

1979
- Central Area Planning Team (CAPT) set up.

1980

1980
- Main report by CAPT completed, and common land use concept plan for Central Area adopted.

1981
- Completion of the Benjamin Sheares Bridge.

1982
- Decision to construct the Mass Rapid Transit (MRT) system.
- Decision to stop future public housing construction in the Central Area.

1983
- I. M. Pei and Kenzo Tange develop conceptual master plan for Marina Bay.

1985
- CAPT completes Central Area Structure Plan.
- Singapore River Concept Plan created.

1986
- First conservation plan announced as part of the Central Area Structure Plan.

1987
- Completion of the Singapore River Clean-up.
- Pilot conservation project in Tanjong Pagar.

1988
- Phased lifting of rent control for conservation districts planned.
- Draft Master Plan for the Civic and Cultural District.

1989
- Merger of URA and PD.
- Development Charge table introduced.
- URA creates Pidemco, a new real estate company, out of a URA department to manage resettlement of centre properties.
- Draft Master Plan for the Urban Waterfronts at Marina Bay and Kallang Basin.

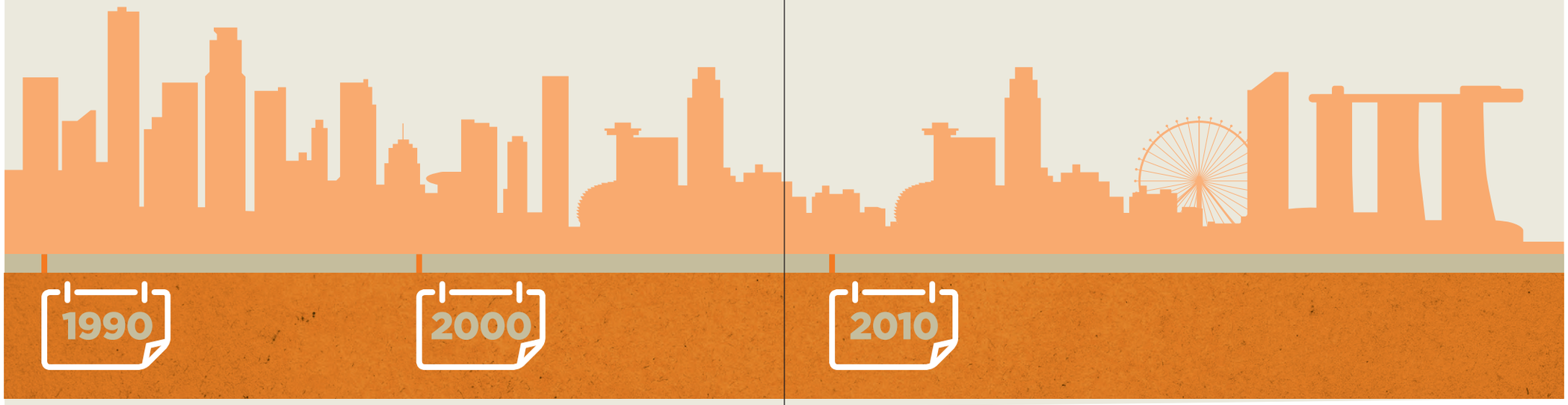
1991
- 1991 Concept Plan released.

1998
- Development Guide Plans for all 55 areas completed.
- Forward-looking 1998 Master Plan gazetted.

2003
- Marina Bay Master Plan reviewed by Skidmore, Owings and Merrill.

2007
- Marina Barrage completed.

2010
- Integrated Resort (IR) development at Marina Bay completed.



ENDNOTES

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[160] White Sites allow developers flexibility to decide on the mix of uses in the development, as long as the total permissible gross floor area for the whole development is not exceeded. This zoning concept was first introduced by URA in 1995 for the land sales at China Square.

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APPENDIX A

Planning Authorities and Relevant Government Organisations

(I) Legal Instruments

Tools	Description
Singapore Improvement Trust (SIT) (1927 – 1960)	Established by Ordinance in 1927 to address deteriorating living conditions, the SIT was envisaged as a "specialised body for the single purpose of slum-eradication". SIT was responsible for providing low-cost housing in Singapore until it was dissolved in 1960.
Public Works Department (PWD)	Established during British colonial days and reorganised upon Singapore's self-governance under the Ministry of National Development, the PWD oversaw infrastructural provision, including planning, design and construction of roads and transportation and other forms of public works. The PWD was also responsible for development control through its Development and Building Control Division, which was separated from the Planning Department in 1974. In 1999, the PWD was incorporated under Temasek Holdings, an investment company owned by the Government of Singapore; it was renamed CPG Corporation in 2002 and subsequently divested.
Housing and Development Board (HDB) (1960)	The HDB was established as a statutory board to develop public housing, following the dissolution of the SIT in 1960. The HDB also led urban renewal programmes through its Urban Renewal Unit/Department, until a separate authority, the Urban Redevelopment Authority (URA), was set up in 1974.
Planning Department (PD) (1960)	The PD was set up in 1960 under the Ministry of Law and National Development, alongside the establishment of HDB. The PD was responsible for the Concept Plan and Master Plan, as well as for development control (until 1974 when this function incorporated under the PWD). It was the central planning authority in Singapore until it was merged with URA in 1989.
Urban Renewal Department (URD) (1966)	In June 1963, the Urban Renewal Unit was established in the Building Department of the Housing and Development Board. By April 1966, the unit had evolved into the HDB's URD. It continued to focus on the physical, social, and economic regeneration of the Central Area through the implementation of renewal, resettlement and sales of site programmes.
Urban Redevelopment Authority (URA) (1974)	In 1974, the URA was created from the URD as an independent statutory board under the Ministry of National Development (MND). It was tasked with "all matters relating to urban redevelopment, including the clearance of land, development of land and management of buildings" as well as land sales to the private sector. URA's scope expanded in 1989 when it merged with MND's Planning Department and Research & Statistic Unit, becoming the de facto national planning and conservation authority. The development arm was later separated from URA through the creation of Pidemco Holdings Pte Ltd. This freed up URA to concentrate on developing comprehensive long term concept plans and medium term master plans to guide the overall development of Singapore.

Central Area Planning Team (CAPT) (1979)	The Central Area Planning Team was formed in 1979 in response to a directive from MND that Central Area planning should be given special attention. This was in part due to the dilution of responsibility for overall land-use and renewal planning among the relevant authorities, following the completion of the State and City Planning Project in 1971. Headed by the General Manager of URA, all government agencies involved in the planning of the Central Area (i.e. the Planning Department, PWD and HDB) were represented. The Team prepared land use and design guide plans for the Central Area. It was dissolved in 1985, having completed its main objectives.
Pidemco Holdings Pte Ltd (1989)	Pidemco Holdings Pte Ltd was a private company incorporated by the URA in 1989 to manage URA's commercial properties. Wholly owned by URA, it also undertook property investment and development and other related activities. This allowed URA to concentrate on its primary role as the urban planning and conservation authority. Pidemco Holdings merged with DBS Land to form Capitaland in 2000.
Land Transport Authority (LTA) (1995)	LTA was established in 1995 from the merger of four agencies: the Registry of Vehicles (ROV), Mass Rapid Transit (MRT), PWD's Roads & Transportation Division and the Land Transport Division of the then-Ministry of Communications. LTA plans, develops and manages Singapore's land transport system, including the construction of new train lines and expansion of the road network.

APPENDIX B

Key Master Plans and Planning Initiatives

Plan	Description
1958 Master Plan	Singapore's first statutory Master Plan was initiated in 1951. The SIT had been tasked with conducting an island-wide diagnostic survey of Singapore, and with preparing a master plan to guide the city's physical growth. The statutory Master Plan was completed in 1955 and approved in 1958. While it introduced a land use framework and zoning system for evaluating development proposals by public and private developers, the Master Plan was widely criticised for being too restrictive to accommodate Singapore's rapidly growing development needs.
1st UN Technical Planning advisory—Erik Lorange (1962)	The Singapore government's request for technical assistance from the United Nations led to a six-month study in 1962. This resulted in a framework of both long-term redevelopment and short term precinct level plans. The Central Area was divided into 21 precincts and prioritised for development based on a variety of factors.
2nd UN Technical Planning advisory—the "KAK" Team (1963)	A second UN Team of 3 experts, also known as the "KAK"(Koenigsberger, Abrams, and Kobe) Team, was invited in 1963. The team recognised the limitations of the 1958 Master Plan, and that Singapore could not afford to wait for a new Master Plan to guide its future development. They recommended a strategy of coordinated action programmes and urban renewal to rebuild the city in a staged, precinct-by-precinct manner.
State and City Planning Project/ 1971 Concept Plan (1967 – 1971)	As part of a UN Urban Renewal and Development Project under the UN Development Program (UNDP), a four-year State and City Planning Project (1967-1971) was initiated. The project resulted in Singapore's first Concept Plan (1971), which set out the development needs for a projected population of four million by 1992. This Plan laid the foundation for future urban growth, by safeguarding land for future developments such as the MRT system.
Central Area Structure Plan (1985)	To address the lack of coordination between private and public developments within and around the Central Area, the 1985 Central Area Structure Plan was developed by the Central Area Planning Team. The plan included an urban design guide, and highlighted opportunities for redevelopment presented by the upcoming MRT system, as well as the conservation of historic districts in the city centre.
URA Master Plan for Urban Waterfronts (1989)	A 1989 Master Plan established planning and design guidelines for optimising the use of urban waterfronts at the Singapore River, Marina Bay and Kallang Basin. Incompatible uses at the waterfront, including shipyards, gasworks and industries were planned to be phased out, while facilities and activities to enhance the distinctive identity of each area were introduced.
1991 Concept Plan	The 1991 Concept Plan was the first Concept Planning exercise undertaken without external assistance. It featured an integrated approach to the planning of the whole island, following the merger of the URA and PD, and laid out a vision to transform Singapore into a "Tropical City of Excellence." The Plan also proposed a decentralisation strategy: a series of regional, sub-regional and fringe commercial centres would be developed in different parts of the island. The intention was to bring jobs closer to homes and to alleviate congestion in the city centre.

Development Guide Plan (DGP) (1991-1998)	DGPs are detailed plans that translated the broad intentions of the 1991 Concept Plan into detailed local plans, communicating future planning intentions in a systematic, transparent way to the public. Singapore was divided into 55 planning areas with a DGP for each of these areas. The 55 DGPs formed the overall 1998 Master Plan, which was gazetted on 22 January 1999.
2001 Concept Plan	The 2001 Concept Plan aimed to provide a high quality living environment and to transform Singapore into a global financial hub by setting aside land in the city centre to support the growth of the financial and services sectors. It was also the first to introduce an extensive public consultation exercise as part of the Concept Plan process.

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URBAN REDEVELOPMENT: FROM URBAN SQUALOR TO GLOBAL CITY

Singapore's Central Area was an overcrowded, slum-filled and heavily-polluted urban centre in the 1960s. Rapid redevelopment in the following decades has transformed it into a global financial centre today, exemplifying the progress made by the city-state.

Urban redevelopment is not only about the physical rebuilding of a city, it involves a wide range of socio-economic elements vital to the overall life of a metropolis. Singapore's urban redevelopment process illustrates how social, economic, and environmental goals can be achieved within the constraints of a land-scarce, island-city-state.

This book examines the decision-making process, legislative and policy tools, as well as planning and development strategies that shaped Singapore's Central Area over the years. The narrative integrates multiple urban development domains — including governance, urban planning, environmental clean-up and transport — and provides a comprehensive perspective on the redevelopment of the Central Area.

*"**Urban Redevelopment: From Urban Squalor to Global City** traces and documents Singapore's journey from a backward Third World country to a clean, green and successful First World country in a systematic, strategic and organised manner. It relates the need for a strong-willed government, backed by strong private participation, supported by well-organised government agencies that encourage and enable execution in all facets of development."*

Alan Choe, first General Manager, Urban Redevelopment Authority

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