

# Sustainable City Planning

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## Bringing To A New Height

### The Singapore Experience

*Presentation by*

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*Honorary Secretary*

**Singapore Institute of Planners**





*Emerging from 1960s ...*



# *Living in* **POVERTY**





# Severe Housing Shortage





to ... a **FIRST WORLD CITY**







**How did we do it?**

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**Early Phases of City  
Planning**

**Overall plans to guide rapid physical**



# MASTER PLANS 1958 & 1980

- **1st Statutory Master Plans**
- **Regulated Land use**
  - Zoning
  - Density
  - Plot Ratio
- **Reserves land**
- **“Green Belt”**
  - Arrests further city expansion



# RECESSION & REGIONAL COMPETITIONS

In late 1990s, Massive Recession:

- **Affects Entire Asian Region**
- **Threatened Sustainability of Economy & City Planning**
- **Generates Competition from surrounding emerging countries**

*Economy &  
Property*

*Bubble  
Burst!*



Rethinking & Strategizing  
**Revitalization Program**  
to ensure continued  
**Economic Growth**



S I N G A P O R E  
CONCEPT PLAN 2001

*"Big picture"*

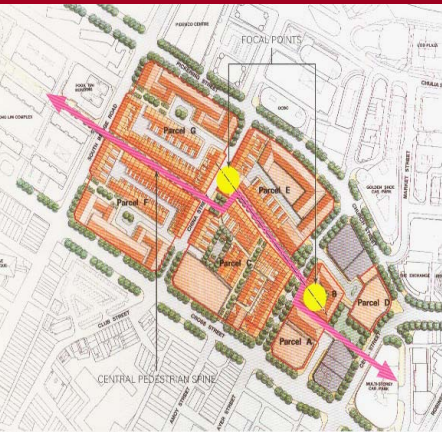
*that charts out Singapore's long term*

*Land Use Strategies*

**SUSTAINABLE**

*in the long run...*

# SINGAPORE CONCEPT PLAN 2001



Urban design guidelines for individual parcels were made known to potential tenderers. But while the guidelines were comprehensive, they were also flexible enough for developers and architects to let their imagination roam and come up with fresh ideas.

The result? A bustling, innovative development



1980s



1998

1. Varieties of Housing Choices

2. Comfortable Living Environment

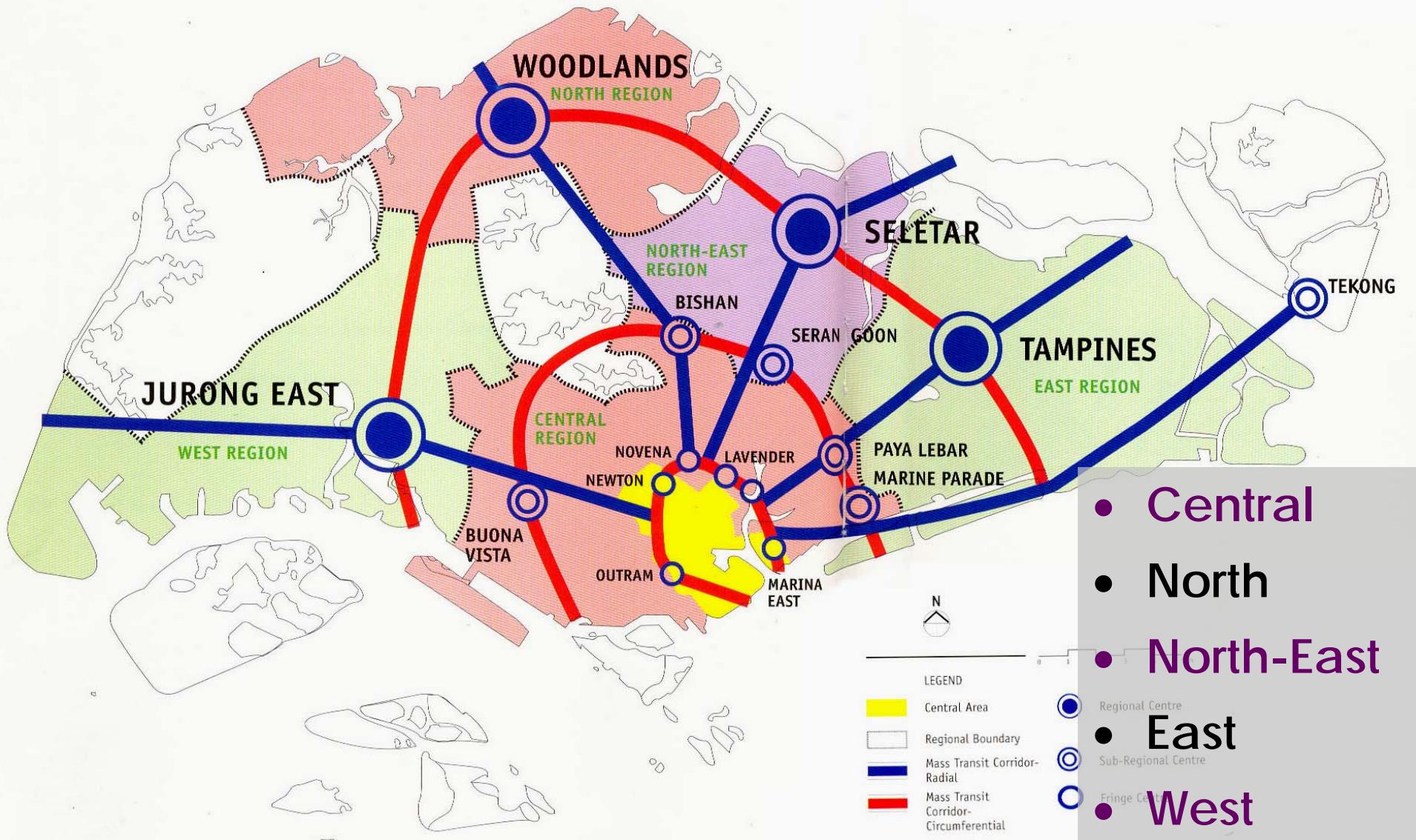
3. Business Initiatives:

- Flexibility & Responsiveness
- Support Value-added Industries
- Growth into Int'l Business Hub





# Central Biz District 5 Regional Towns



Review: Every 5 years

# MASTER PLAN 2003



- **55 DGPs**  
Development Guide Plans were gazetted & stitched into Master Plan
- **Translates Broad Vision**  
Strategies into Realizable proposals
- **Planning of Integration of**  
**Transport Networks**
- **Retain CHARACTER**  
of each region





**New DOWNTOWN**



# REMAKING OF SINGAPORE

## BRINGING THE NATION TO A New Height

Multi-pronged approach  
crafted to make City Planning  
**sustainable & competitive**



# ECONOMIC PLANNING & POLICIES

## Pro-Business & Creativity in generating

# R E V E N U E S



## Inland Revenues Taxes

- Income & property Taxes      \$10,000 m/yr

## Car Use Control & Taxes

- COE (Cert of Entitlement)
- ERP (Electronic Road Price)      \$1,500 m/yr

## Asset Taxes & Land Sales

- Land Parcel Sales      \$2,139 m/yr  
(thro Govt Agencies: URA, HDB & JTC)

REMAKING OF SINGAPORE

# Softwares





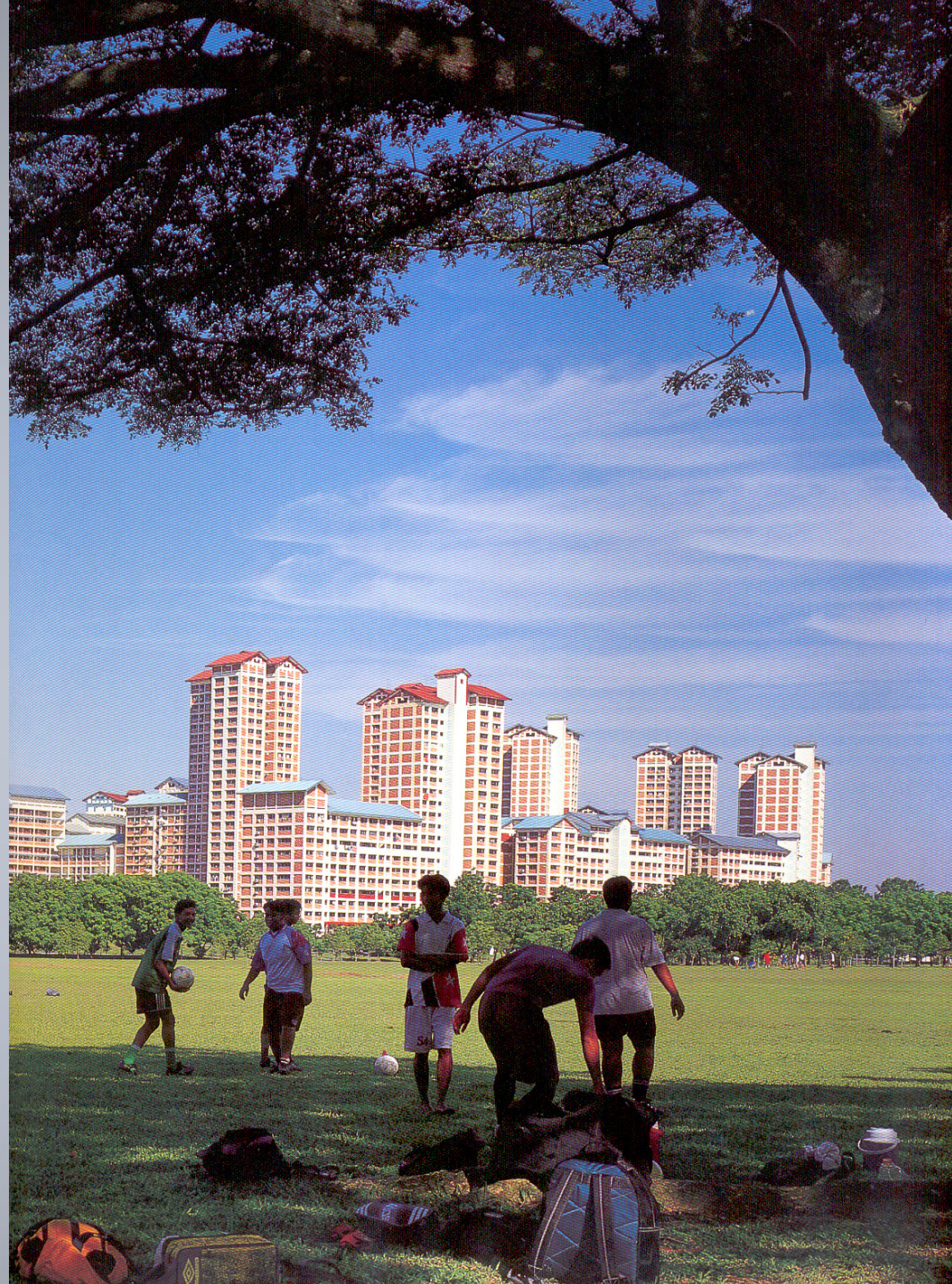
# LIFESTYLE

*Promotions to  
portray Singapore  
as a safe haven  
for living as the  
best place to*

*LIVE -  
"HOME"*

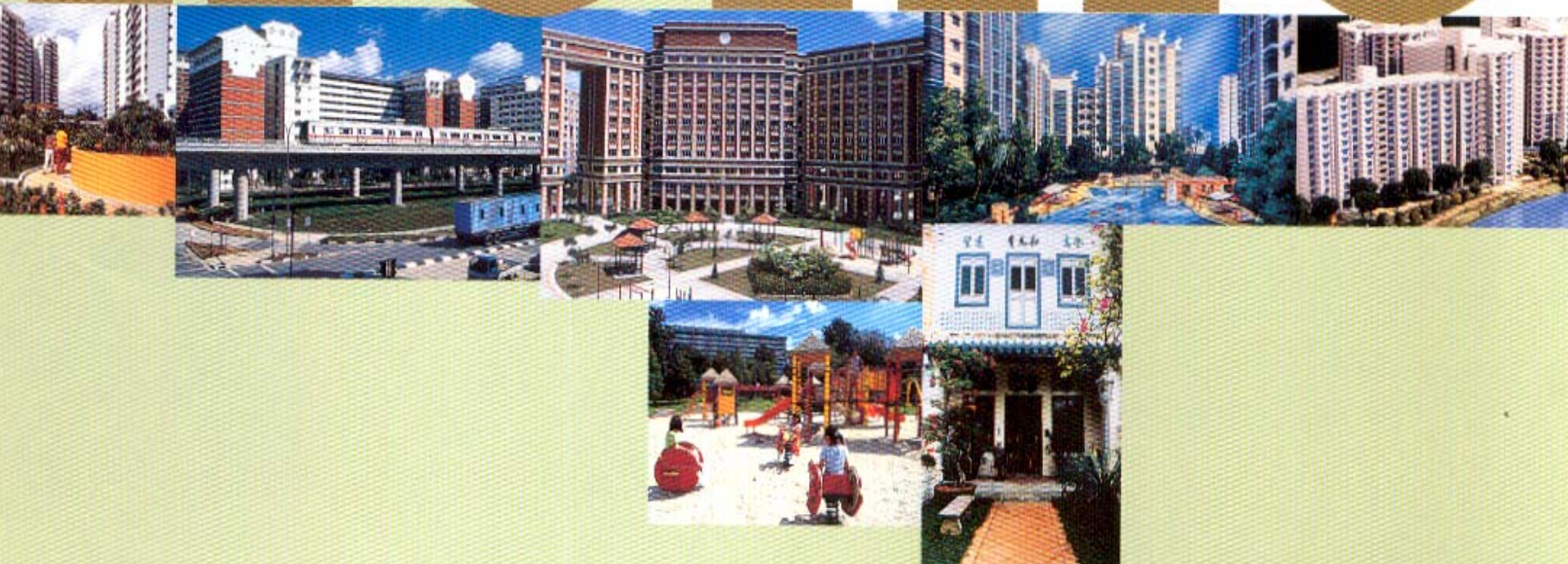
*WORK*

*PLAY*





# Home





# Our Past

## *1970s* Early Phase

HDB Public Housing Program

- **Massive Quantities were built**
- **Simple Slab Blocks of Flats**
- **Basic & Standard Design**
- **No Characters or Varieties**

# Our Aspirations



- New homes of **Large Variety**
- **Community & Education** facilities
  - Community Living
- A Sense of **History & Identity**
  - Heritage Living
- Better **Transport Infrastructure**



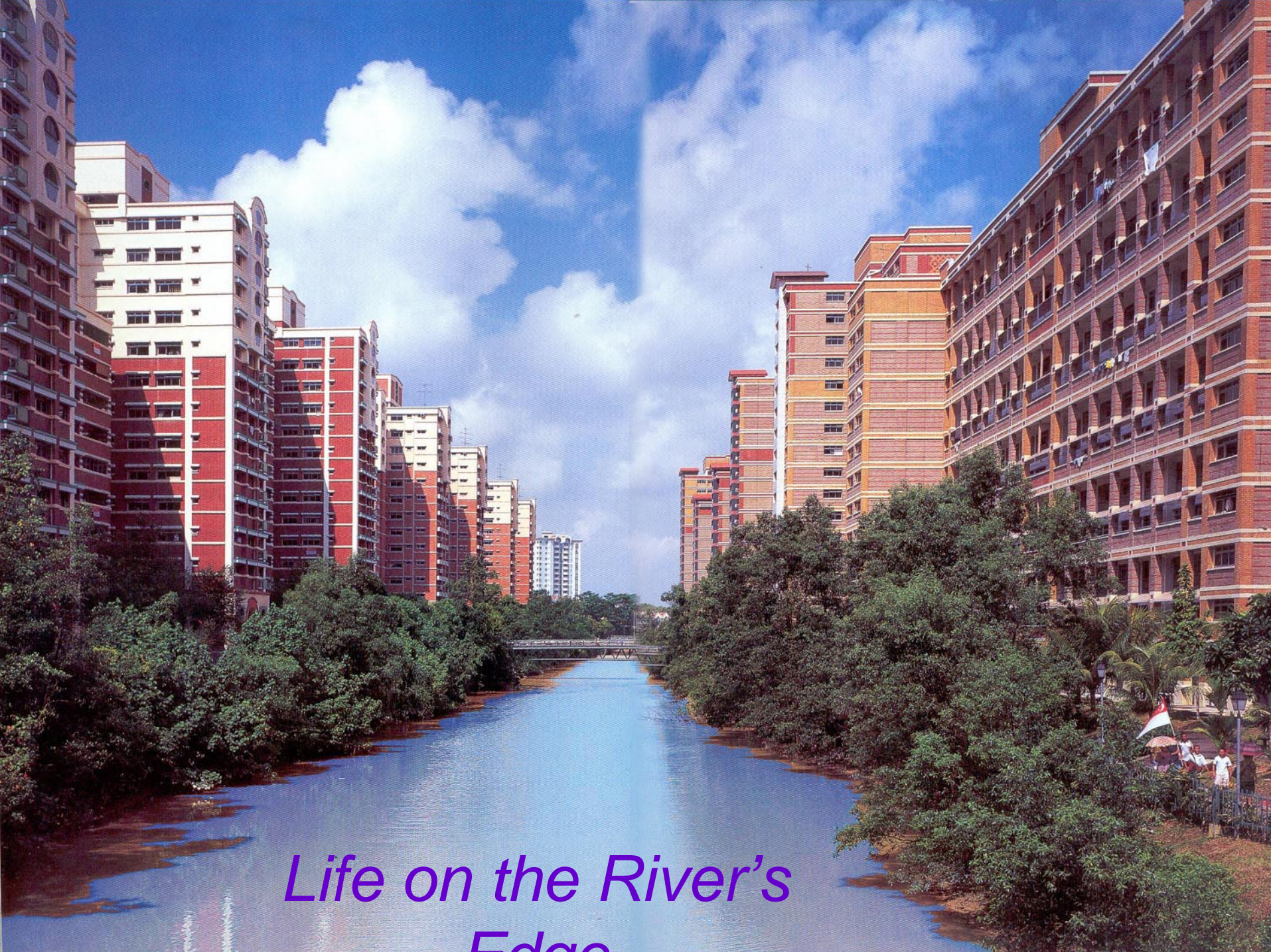
# Variety of Housing

You wake up in the morning, walk to the balcony of your flat, stretch yourself languorously and take in a deep breath of sea breeze. Your senses come alive as your eye takes in the panoramic view of a river and a promenade fringed by swaying palm trees.

The sun is up and the day feels just right for a spot of water-skiing. You swill down your coffee, change, hop into your car and in just 5 minutes, you arrive at the marina – a day of sea, sun and fun ahead of you.







*Life on the River's  
Edge*



# SELECTIVE REDEVELOPMENT SCHEME

- **DEMOLISH**  
Old flats with low density
- **UPGRADE**  
Exstg residents to newer flats nearby
- **NEW HI DENSITY HOUSING**  
Being built, eg. Tiong Bahru

## TRAVELLATORS

- Currently found in Changi Airport
- Extensively Use in New Downtown
- High rise tower Lobbies locate just off traveller network





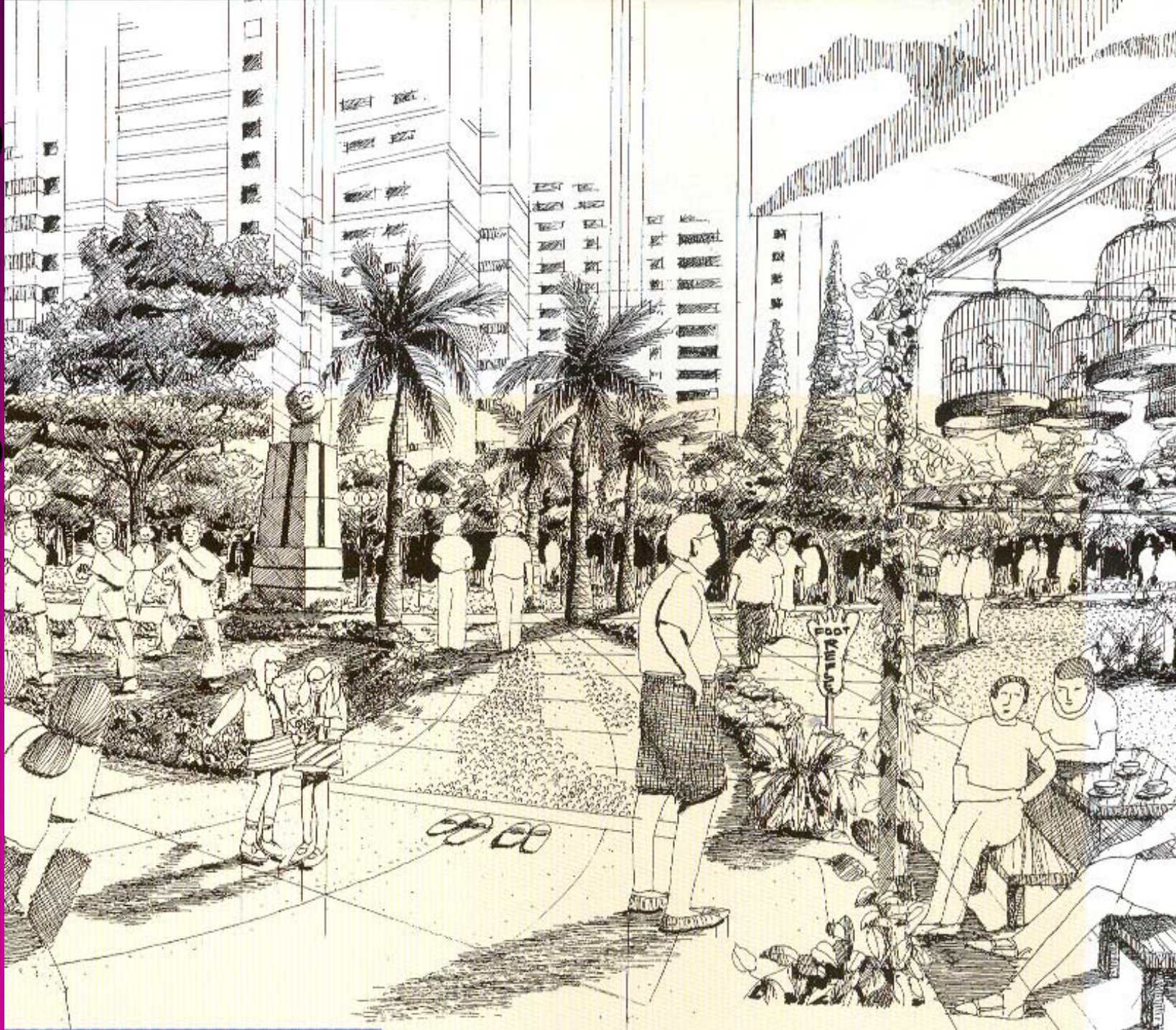
# OLD TOWN, NEW FACE



- Rejuvenate ageing housing estates  
eg Toa Payoh town center
- Upgrade facilities  
like libraries and cinemas
- New Commercial Ctr  
for office
- New bus interchange



# Community Living

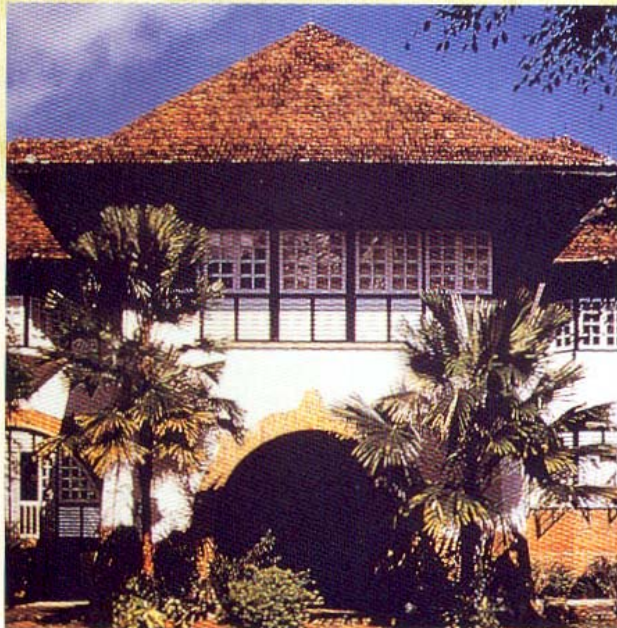




# Heritage Living

For those who are inspired by history and think that setting up a trendy pad in the confines of a well-restored old building is cool, heritage homes will be your idea of a perfect home.

Buildings with historical and architectural value are given conservation status in Singapore. They include residential, commercial and civic buildings.





# WORK





# Land Use Planning



- Establish new Zonings
- Bring jobs closer to home
- Meet new and expanding businesses



# World-Class Transport System





- Public transport system follows  
“Constellation Concept” Areas  
Intense development served by mass transport
- Extend End-to-End  
MRT to serve the entire Island
- Inter-regional rail links  
connects Downtown to 4 outside Regions  
  
Intra-town above ground
- Light Rail Transit  
such as Bukit Panjang and Sengkang



# Transport



## LEGEND

-  Existing MRT Line
-  Future MRT Line - Under Study
-  Pedestrian Network (Travellator)
-  Major Pedestrian Links



## AT A GLANCE

In the 21st century, watch out for:

- A new Entertainment District at Bugis
- A new performing arts centre called Esplanade: Theatres On The Bay
- More beaches, marinas and resorts
- More adventure and nature parks
- More sports and recreational facilities

# play

Girls – and boys – just want to have fun. Well, at least during the weekends, after slogging it out at work from Monday to Friday. And what's there to do in Singapore?

Here's how one "have-fun-till-you-drop" weekend could be like:

Your Saturday morning gets off to a deliciously sweaty start as you burn those calories off your bums in a cycling adventure that takes you around some of Singapore's inter-connected parks.

In the evening, you chill out by plonking yourself onto the plump seats of a state-of-the-art cineplex in Orchard Road. Then it's off to the waterfront in the New Downtown, where you settle down to a leisurely al fresco meal at your favourite restaurant by the breezy bay.

Still in the mood for some action? Then head for the bright lights of the new Entertainment District at Bugis. There, you spend the rest of the night laughing your head off watching stand-up comedy.

Sunday dawns and you need to shake off the woozy after-effects of all those margaritas you imbibed the night before. Sun and sea, here you come. You pack off to Punggol for a spot of wake-boarding. By evening, your face red and your muscles aching, you tuck into hearty hawker fare at the sprawling food court in your estate, before heading back to your flat and nodding off to bed while surfing channels over cable TV.

Ahh, the good life.

The Concept Plan is the document that details what Singapore will look like in the future. First drawn up in 1971, it was revised in 1991.

While leisure facilities currently abound in Singapore, the 1991 Concept Plan envisages that they will be even more plentiful and accessible in the 21st century.

Providing ample and attractive leisure is important as Singaporeans become more wealthy and well-travelled. Just as they work hard, so too, they will want to play hard. A vibrant leisure scene will also attract foreign talents to settle here and contribute to the economy.

Ready, set, go – to your play stations, that is. And boy, are there many stops you can make in the 21st century. Take your pick from new beaches to the new Entertainment District at Bugis, from Esplanade: Theatres On The Bay to island hopping. And don't forget food, glorious Singapore food.





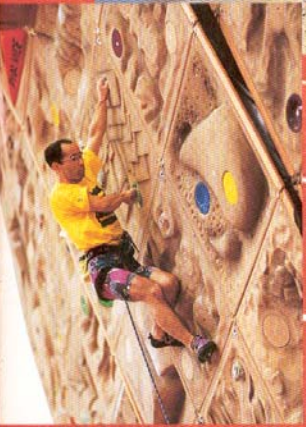
# Wide Varieties of ENTERTAINMENT





# Leisure, Sports & Recreation Facilities Aplenty

- Wider range of recreational activities
- Parks connected island-wide : 120km
- Green Space 1,200 Ha





*Weekend  
Picnic  
Fun*





# City in a Garden

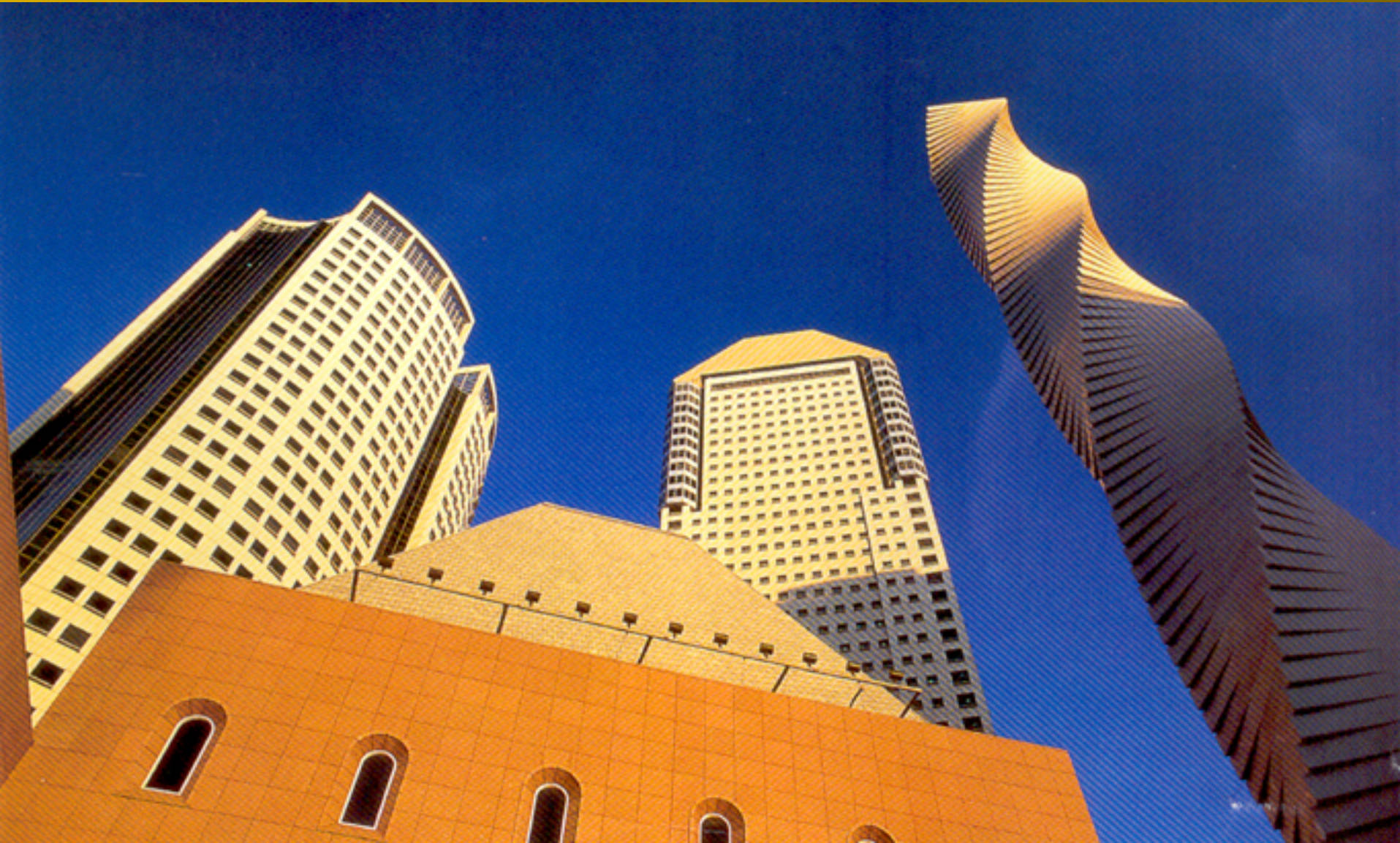
- **Urban Areas - Parkways**  
Colourful plants & trees form “green verandas”
- **Forest Roads**  
Create “rainforest” feeling
- **Coastal Roads near sea**  
Seashore trees on sandy beaches
- **Rural Roads thro’ countryside**  
Fruit trees reminiscent of old kampong days
- **Gateway - Dramatic Entry Points**  
Formal, arrangements of plants





REMAKING OF SINGAPORE

# Hardware







- **Property Market Info**  
URA Supply & Demand Listing  
for Housing Developments
- **Injecting Supply**  
HDB & Land sale programs  
through URA & JTC
- **HDB**  
Since 1960s, successfully  
completed 960,798 units  
  
84% of population living in  
HDB dwellings

# Regulating Property Market





*However the Demand for HDB flats decreased sharply, which construction continued . . .*

	No of Units/yr
Supply	10,000 – 23,000 units
Demand	9,000 – 13,000 units
Excess	1,000 – 10,000 units

**OVER BUILDING**

**Excess Vacant  
Units**





# SOLUTION

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- HDB sold vacant units to private developers
- Redesign & rebuild flats
- Overwhelming Response





- **Strata-Title Act  
AMENDMENTS**

Leads to En-Bloc Sale Fever

- **Enhancement Value**

> 30%-50% higher than their  
valuation prices

- **RENEWAL**  
of urbanscape

# En-Bloc Sale Phenomena



## PHASE OUT

### Low Value Industries

- Labour intensive industries

## ATTRACT

### High Value Industries

- Strong Infrastructure
- Efficient transport network
- Contributes to GDP growth
- Growth of Biomedical Sciences  
9.8%, \$18 billion output



New Business Parks



# Biopolis at ONE NORTH

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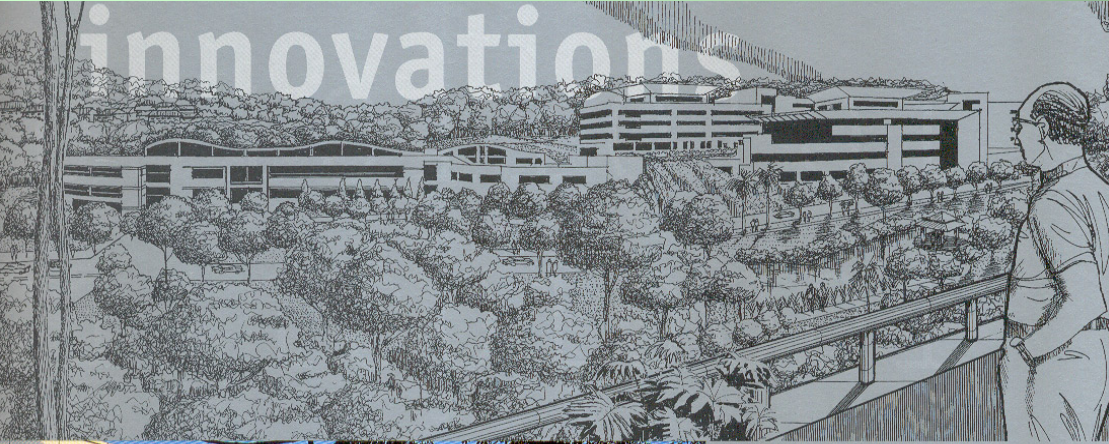


- **World Class R&D Hub**  
Developed by JTC, \$500 million
- **7-building complex**  
linked by sky bridges
- **185,000 m<sup>2</sup>**
- **Research Institutes**  
A\*STAR & Novartis

**New Business Parks**



# High-Tech Corridors



Changi Business Park next to Changi International Airport.

According to guidelines drawn up with economic promotion agencies, business parks must set aside a significant amount of land devoted to open spaces. They must also provide a first-class environment which would be a draw for technology-oriented businesses and industries. Many of them have facilities like restaurants, banks and recreational areas. Independent offices, retail outlets, warehouses and polluting activities will not be allowed in these techno-parks.



- Business Parks & Science habitats
- High-quality housing nearby to attract top international talent



# Lavish Gardens

Amidst Urban Landscape

## Sky-rise greenery

closer to individual homes

## Revamp Waterfront Parks

- First Cable Ski Park  
Ski 360 at East Coast Lagoon
- Water Sports

# Parks & Leisure Development



## Revised Facade Articulation & Party Wall Developments

- Interesting & varied building frontages
- Continuous covered pedestrian walkway

## Lighting Incentive Scheme

- Appealing night appearance & activities
- Tourism & attracts investments

## Encourage Skyrise Greenery

- Exceed allowable GFA of balconies
- Lush verdant gardens in urban landscape



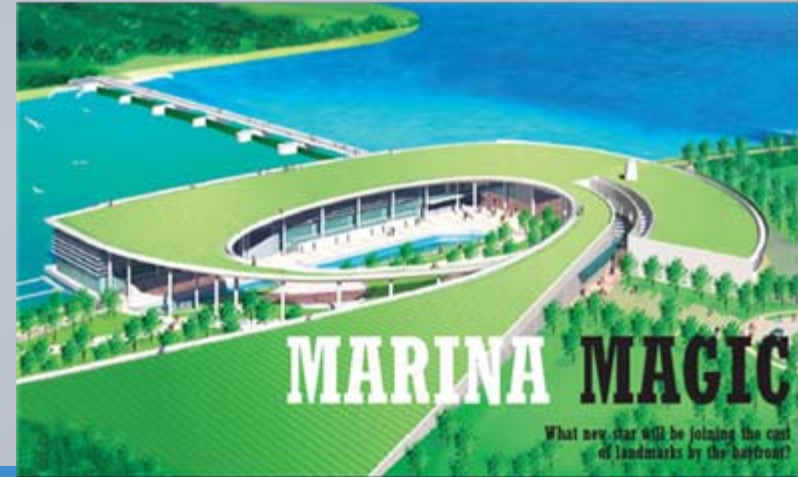
# URA GFA Incentive Program



# A DAM to be built across MARINA CHANNEL

## 3 main benefits :

- **Water Supply**  
Fresh Water Reservoir
- **Flood Control**
- **Lifestyle Attraction**  
Wake boarding, skiing







- 178m tall flyover
- To be completed in 2008
- Malaysia & Indonesia visible to riders on a clear day



# Ferry Wheel

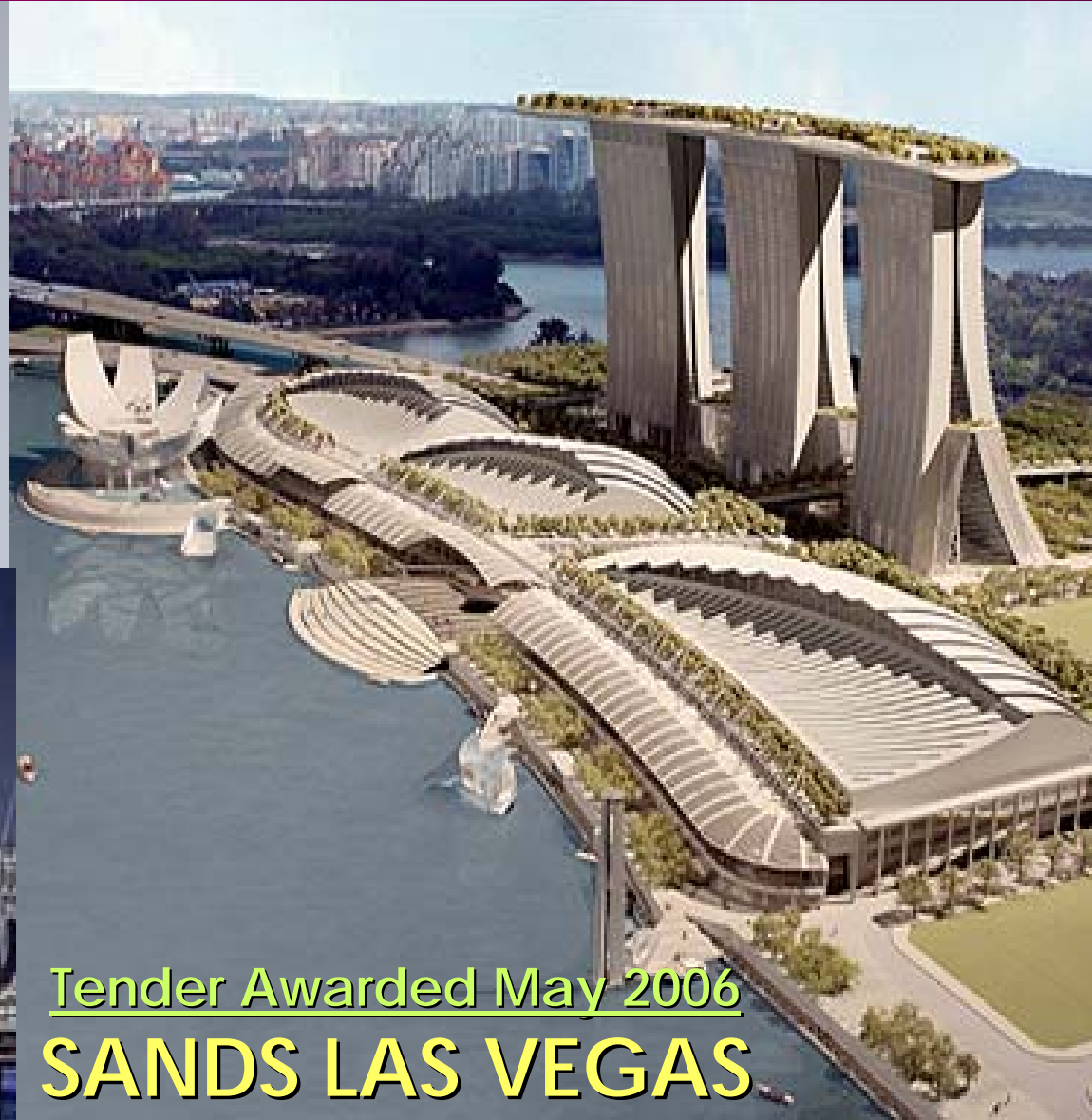
TOURIST ATTRACTION



# MARINA BAY

## Integrated Resort Development

- S\$5.0 Billion Investment
- S\$2.7 Billion GDP
- Target: MICE visitors
- 30,000 jobs
- 12.2 Ha site
- 110,000m2 GFA



Tender Awarded May 2006  
**SANDS LAS VEGAS**



# Idea of IR + Casino

1. Increase Tourism
2. Generate Jobs
3. Liven up City Skyline

- Sky Park - 360° aerial view
- Two 2,000 seat Theatres
- Roof Top Amphitheatre
- Art Science Museum
- Luxury Retail outlets
- Dining & Leisure venues
- Ice Skating Rink
- Indoor Canals





# S E N T O S A

## Integrated Resort Development



### Family-friendly Resort

Theme parks, resort hotels,  
restaurants, shops

- S\$3.0 Billion Investment
- 47 Ha site

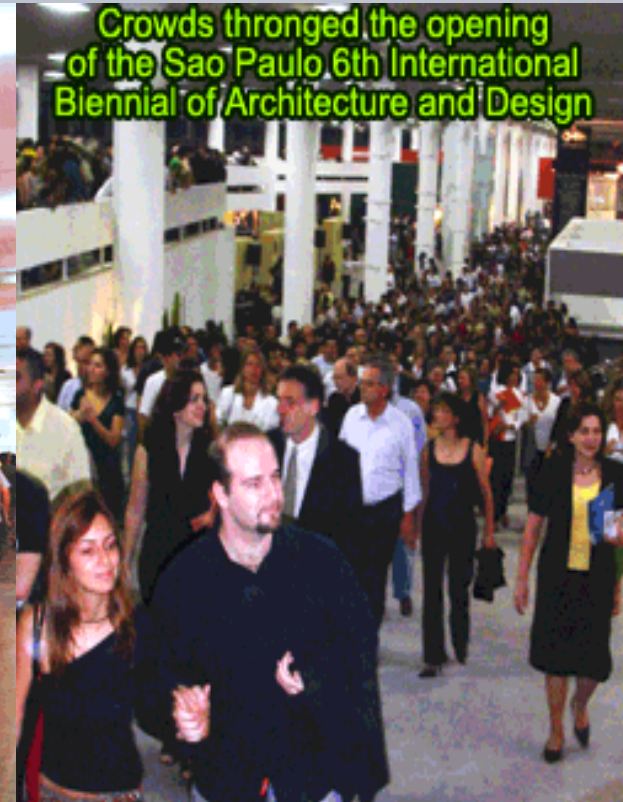
The BIG question ?

**CASINO**  
Occupies less  
than  
**5%**  
of total area

# Branding Efforts

## Singapore: 699.1 km<sup>2</sup>

- **Sau Paulo Int'l Biennial Architecture & Design**
- **"Living in the City"** themed Singapore
- **Multi-media presentation**
- **Singapore Story**  
Constraints of a small island, to meet the needs of a nation







## A+UD Promotion Program

- **Encourage**  
archi & urban design activities
- **FUNDS**  
researches, publications & exhibitions
- **SPONSOR**  
50% of expenditure for activities

# Cultural Diversity



Integral part of urban design

In 1989, **Conservation Plan** was drawn up

- Different Nationalities
- Religious Harmony





*The Wonderful  
Years*























*A City  
of  
Many Faces*

