

# **Balancing Cities' Economic Growth with Social & Environmental Needs: Singapore's Experience**

*Innovative Infrastructure for Better Urban Functions  
Sustainable, Environmental, Energy and Social  
Measures*

*30 June 2012*

An Endearing Home,  
A Distinctive Global City



# Singapore – The Challenges of a City-State

714 km<sup>2</sup> land area

5.2 mil population

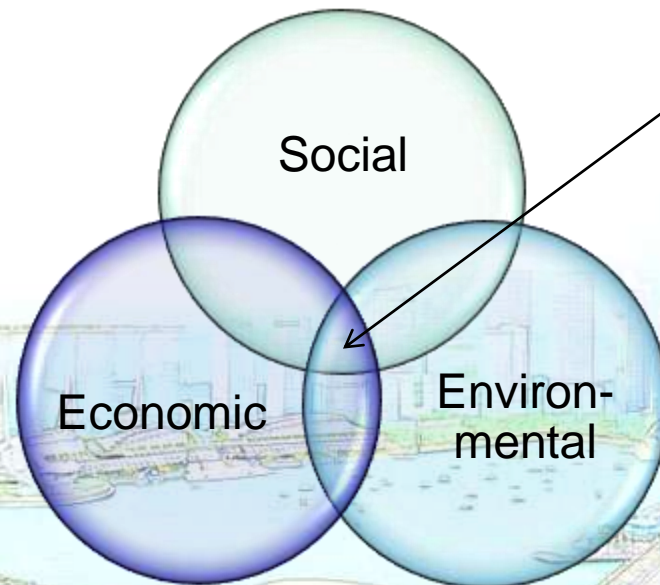
Limited natural resources

A small and open economy

Multi-racial, multi-cultural population

# Singapore's Approach towards Growth

- ❑ Growth is not an end in itself – the aim is for sustained improvements in the individual's and also society's well-being
- ❑ For growth to be sustainable, it must also meet social and environmental needs.



**Sustainable  
Development**



Gina Ng



Ng Lian Geok

Singapore aims for **efficient, clean, and green** development that **meets social needs**.



# **Aim:** Development that is **efficient** – Measures for a Compact, Liveable City



Ng Lian Geok



Liew Tong Leng

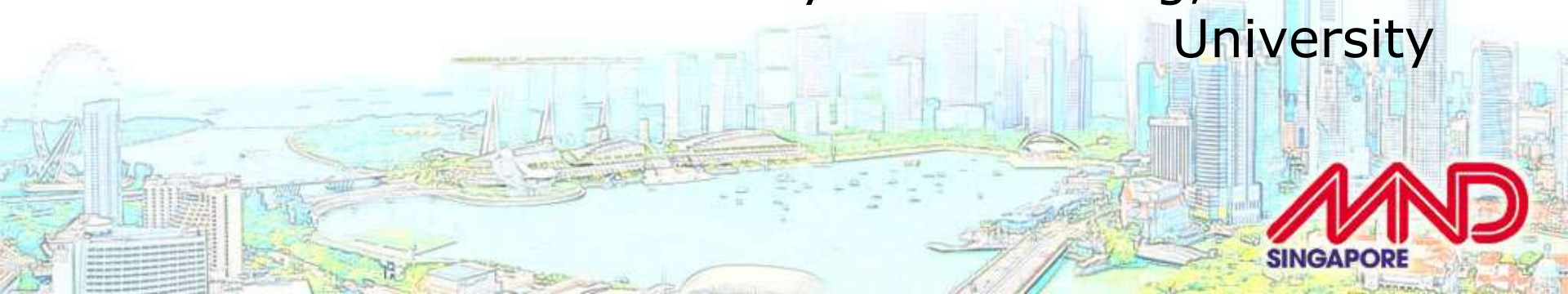


Ng Phuck Yong

# Integrated and Long Term Planning

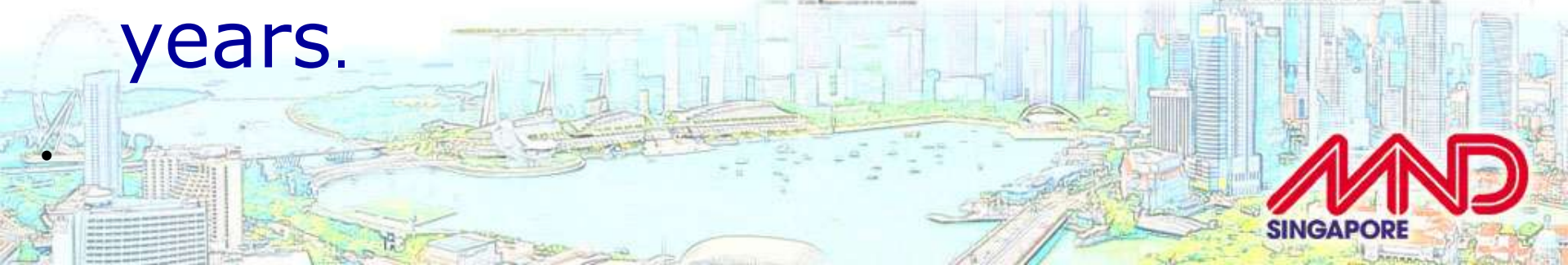
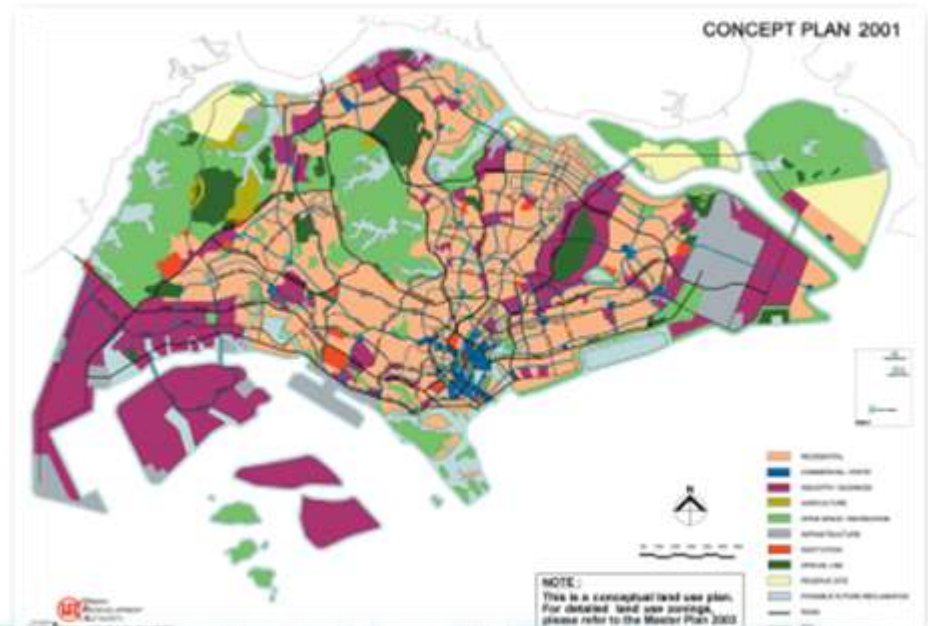
*"Singapore is notable for the rationality and long-term vision that has guided its policy-making since its independence, enabling it to make remarkable gains in terms of prosperity, health, safety, livability and sustainability."*

Alan Altshuler,  
Professor of Urban Policy and Planning, Harvard  
University



# Integrated Long Term Planning

- Concept Plan - strategic land use plan to guide development for **40 to 50** years.
- Master Plan – detailed development plans **over the next 10 to 15** years.



# An efficient transit-oriented city

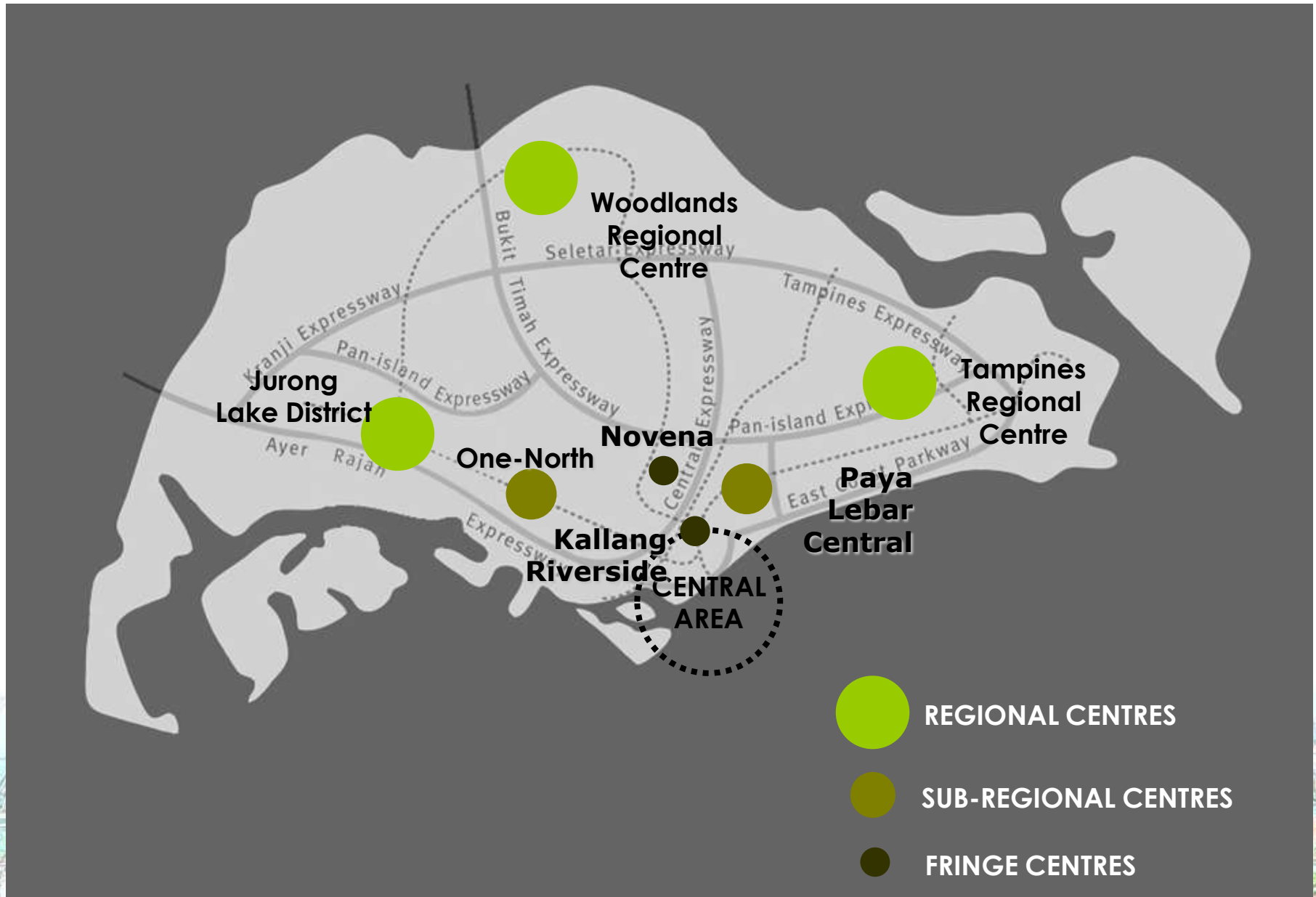
## Transport Measures

- **Infrastructure** for island-wide public transport
- **Policy** for private car ownership
- **Hub-and-Spoke Model** – Seamless interchange between different modes of transport





# An Efficient City – Growth of Regional Centres



**Aim:** Development that is **clean** –  
Measures for resource efficiency and a clean environment



*From an overcrowded and unsanitary living environment, to a clean and green Singapore today.*



# Every Drop Counts - NEWater

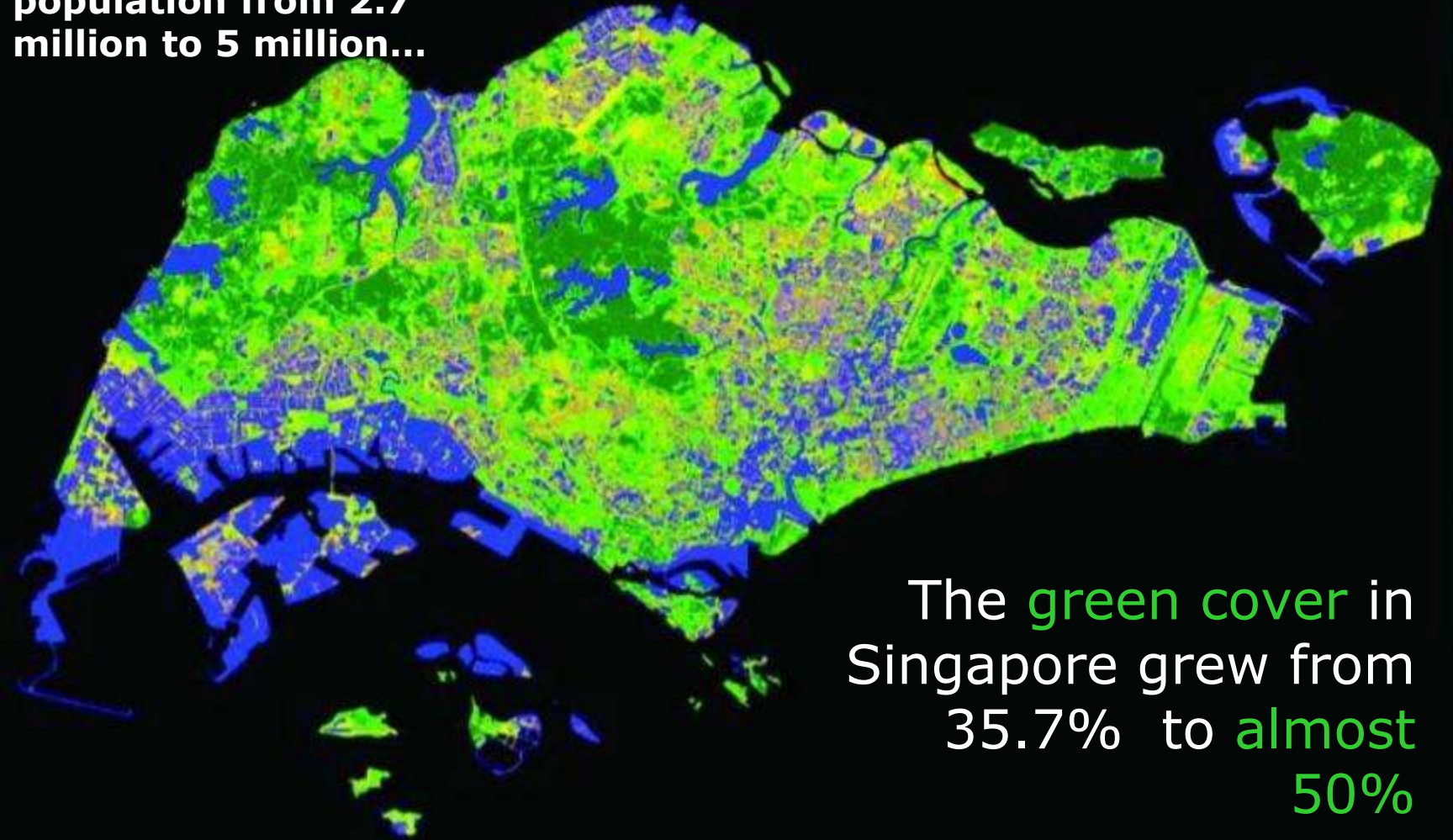


# Aim: Development that is **green** – Measures for a greener city



# City in a Garden

Between 1986 and 2010,  
despite growth in  
population from 2.7  
million to 5 million...



The green cover in  
Singapore grew from  
35.7% to almost  
50%

# City in a Garden

- ❑ Innovative expansion of green areas with minimal landtake (e.g vertical greenery)
- ❑ Preservation of urban biodiversity



# City of Gardens & Waters

## ABC Waters Programme

- Launched in 2006 to transform functional waterways and bring people closer to water.
- New **community spaces created**, offering host of **recreational options**
- Master Plan drawn up with **100 locations** to implement project till 2030



**Aim:** Development that meets social needs  
– Building an Endearing Home





# Public Housing Towns – A Live-Work-Play Environment



# Public Housing Programme – Building Communities

- Started high-density & high rise HDB flats in 1960s, today > 85% ownership
- Self-contained satellite towns with schools, supermarkets, clinics, hawker centres and recreational facilities.
- Financially-aided by the Central Provident Fund to help citizens be self-reliant.
- Social integration through mixture of flat types, racial quota.
- Upgrading Programmes to preserve asset value



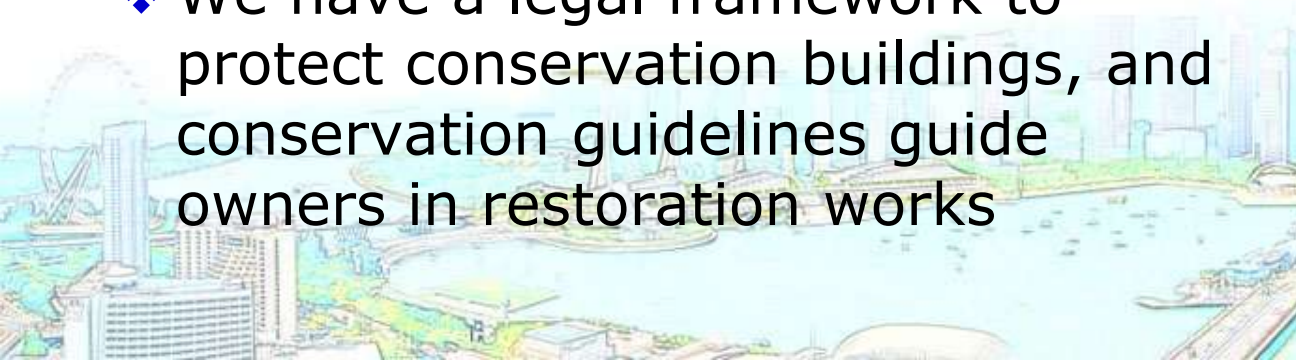
# City for All Ages

- ❑ As our population ages, we must ensure our city remains liveable and affordable for our seniors
- ❑ City for All Ages aims to:
  - Create a liveable built environment for seniors
  - Helping seniors age actively, and in place
  - Integrating the hardware and software for comprehensive eldercare services



# City of Memories

- ❖ The conservation of our built heritage helps to build a sense of rootedness and identity.
- ❖ We have conserved more than 7000 buildings and structures
- ❖ The purpose is to preserve physical representations of our past, a sense of history & memory, and the unique character and identity of our city
- ❖ We have a legal framework to protect conservation buildings, and conservation guidelines guide owners in restoration works



The background of the slide is a photograph of a sunset. The sky is a mix of deep blue and orange, with scattered white clouds. In the foreground, the silhouettes of various people are visible against the bright horizon. On the left, a person is stretching with arms raised. Next to them, a person is in a dynamic pose, possibly dancing or exercising. In the center, a person is walking. To the right, a person is pushing a stroller, and further right, a person is jogging. The overall scene conveys a sense of active living and community in a natural setting.

***The Sustainable Singapore Blueprint***  
*A commitment of S\$1 billion to support*  
*Sustainable Development.*

# Key Thrusts of the Sustainable Singapore Blueprint (SSB)

**Improve Resource Efficiency** in the areas of energy, water, and waste management/recycling

**Create a Liveable Environment** by ensuring cleaner air, water, and public cleanliness; more greenery, biodiversity and waterways.

**Build capability in Sustainable Development** through supporting clean technologies

**Work together to create a Sustainable Community**, involving businesses, NGOs, grassroots and individuals

# A GLIMPSE OF THE FUTURE



# Marina Bay



Marina Centre - Convention/Hotel Hub



Reclaimed Land



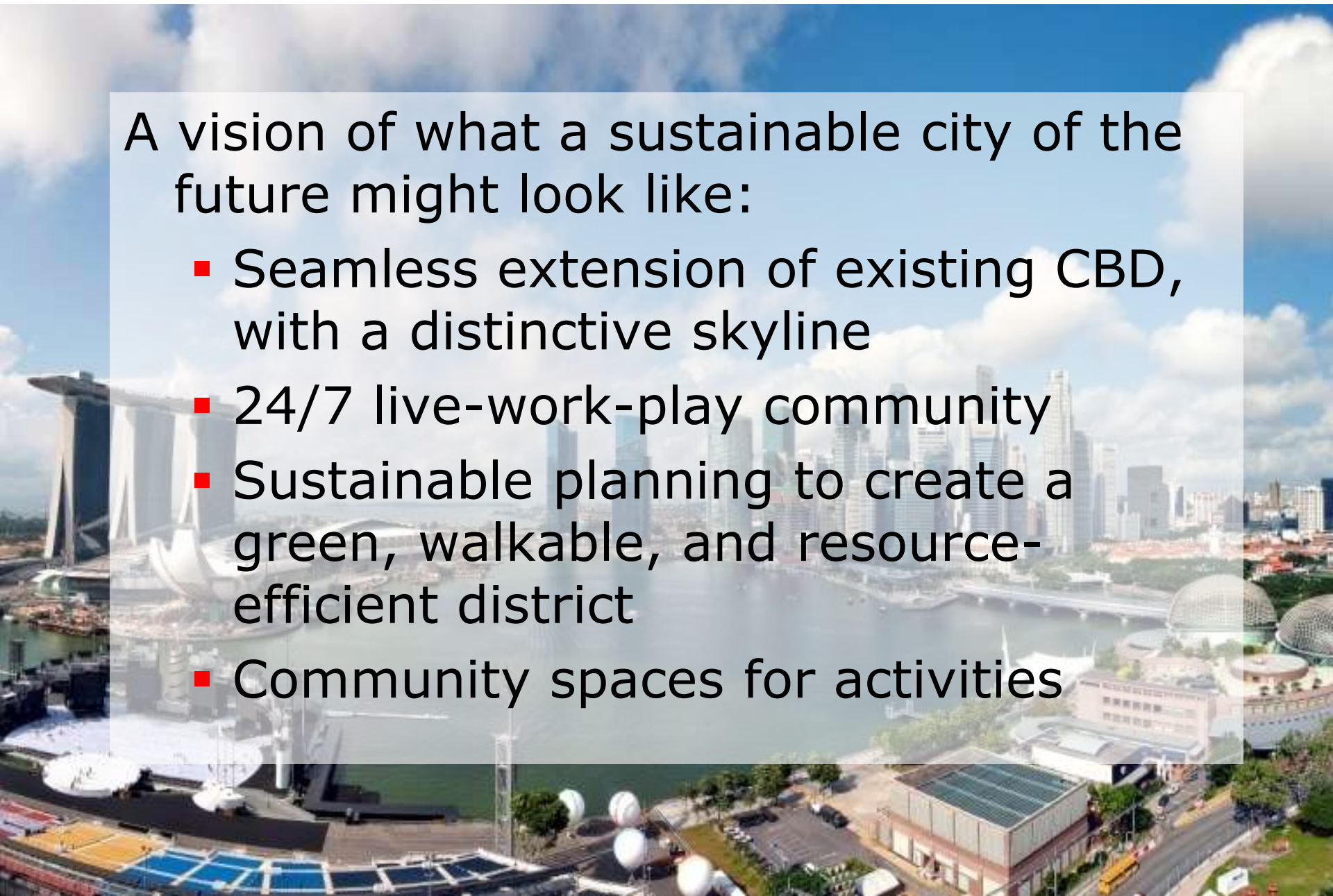
Central Business District



# Marina Bay - Sustainable City of the Future

A vision of what a sustainable city of the future might look like:

- Seamless extension of existing CBD, with a distinctive skyline
- 24/7 live-work-play community
- Sustainable planning to create a green, walkable, and resource-efficient district
- Community spaces for activities



# Marina Barrage



# Marina Bay: Gardens by the Bay



# Marina Bay: The People's Bay

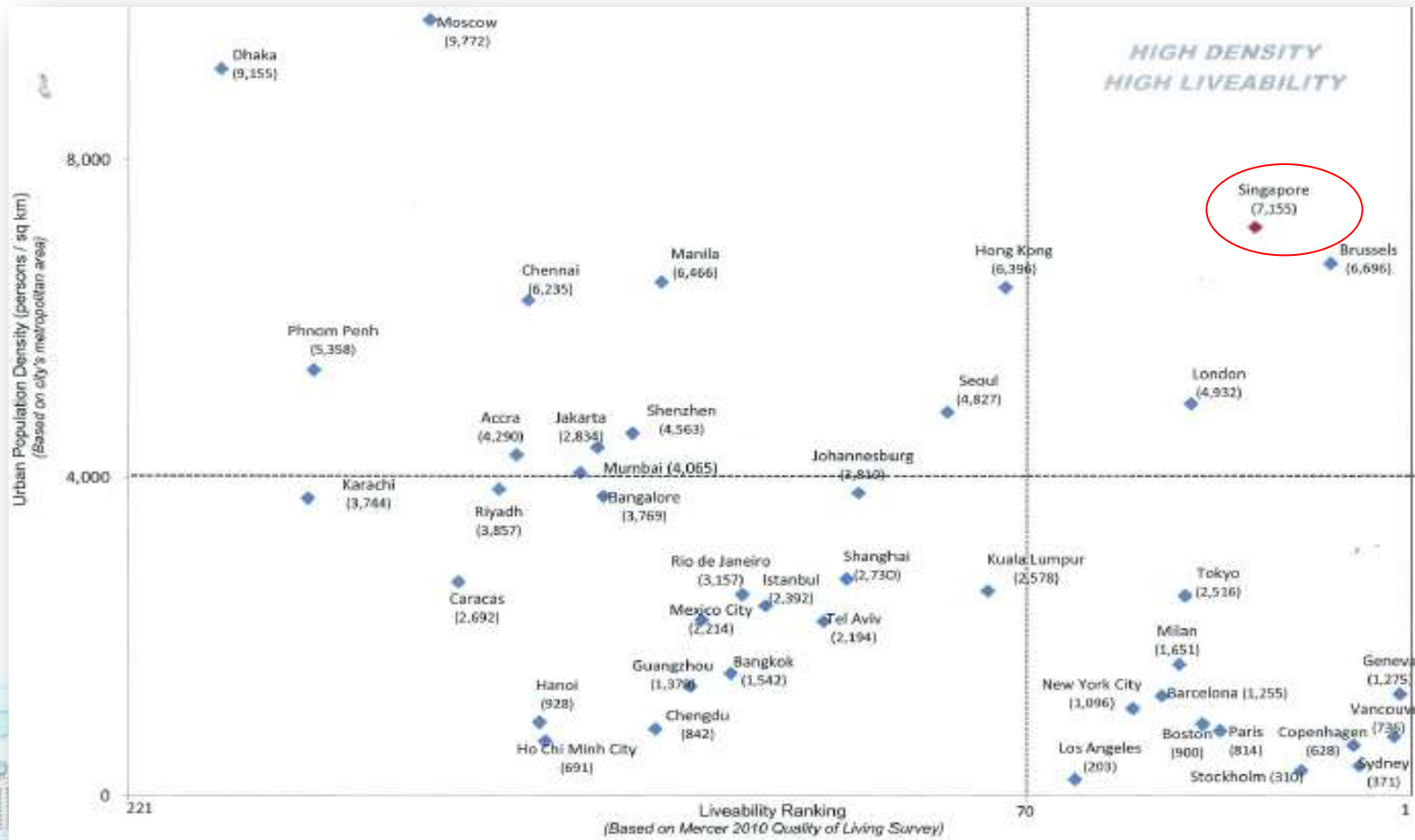


# WHAT SINGAPORE CAN OFFER

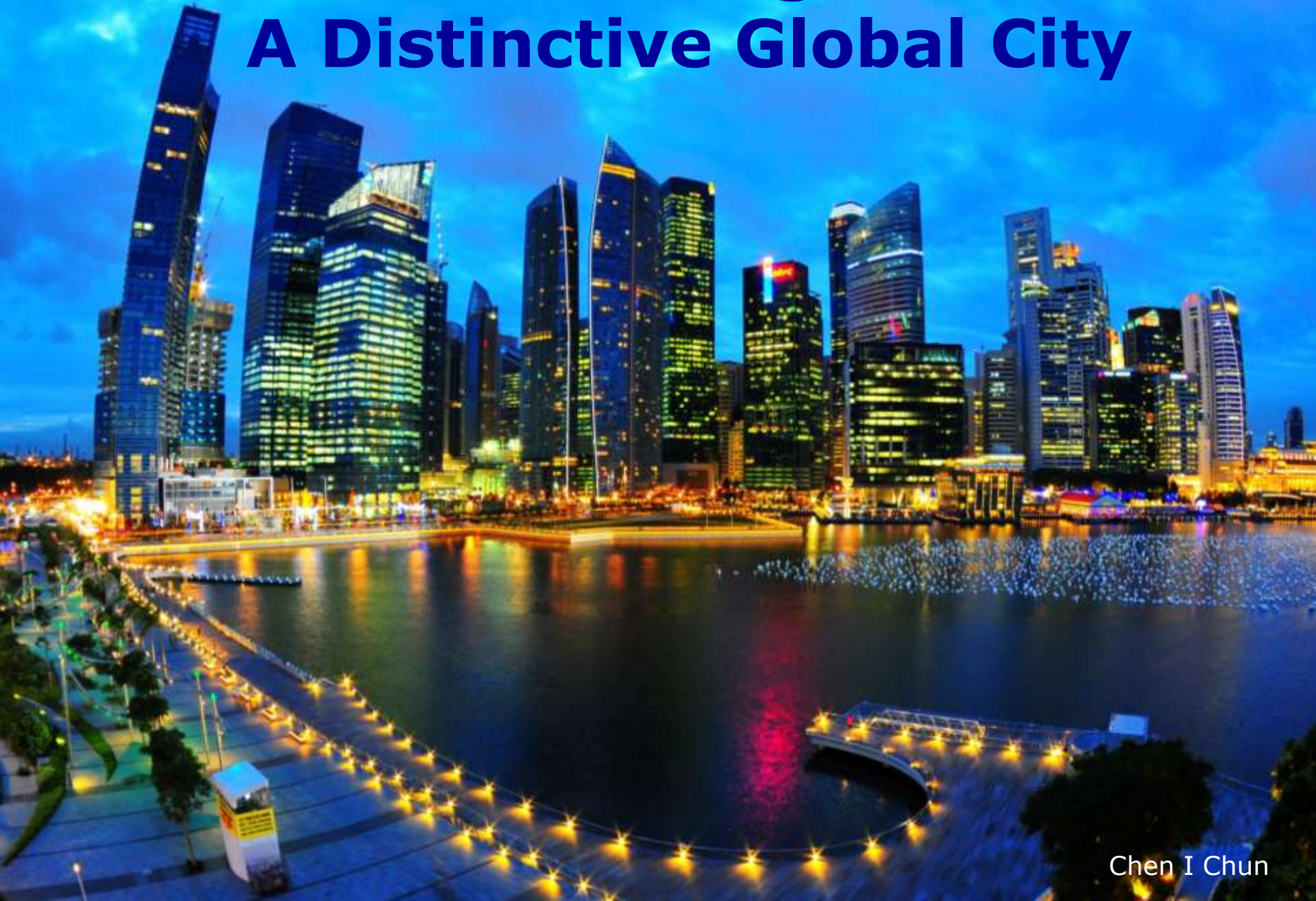


# Singapore's Unique Proposition: High Density, High Livability

- 21<sup>st</sup> century is the century of cities
- Singapore's urban experience is a unique and positive one



# An Endearing Home A Distinctive Global City



**THE END**

