

# **Sustainable Singapore Blueprint – Boosting Resource Efficiency and Green Economy**

**2<sup>nd</sup> Regional 3R Forum in Asia  
Kuala Lumpur, Malaysia**

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# Our Unique Circumstances



## SINGAPORE

**Land Area : 710.3 sq km**

**Population : 5.08 million**

- City-State with no hinterland
- Dependent on resource imports
- Alternative energy-disadvantaged

# Our Early Challenges (1960s & 1970s)

- Polluted waterways
- Lack of sewerage facilities
- Pollutive industries
- Poor water supply network
- Unsanitary living conditions
- Unhygienic street hawkers





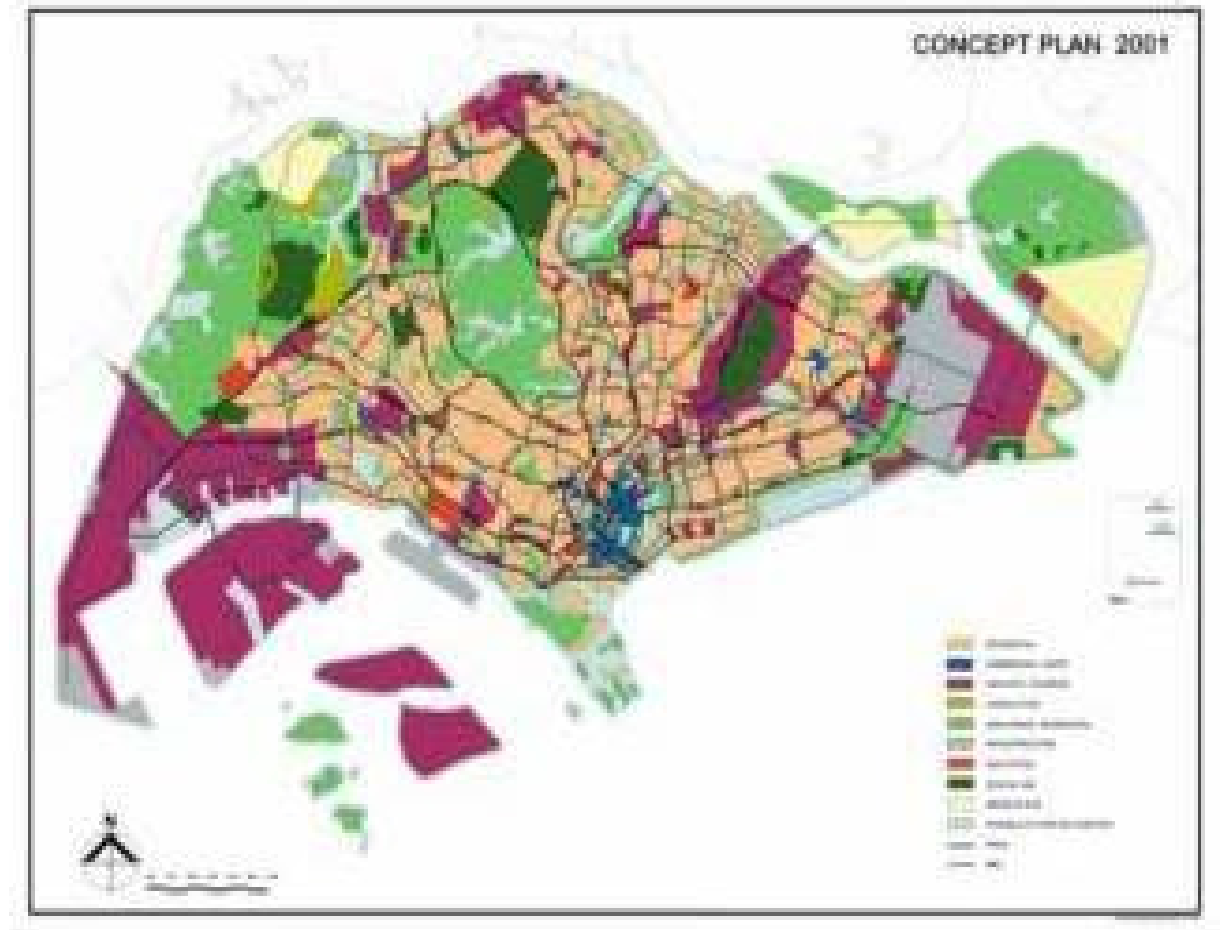
# Singapore Today

- Focused heavily on economic development and education since independence
- Singapore is kept **clean and green** with a **high quality living environment**
  - Clear vision from the very top
  - Strong commitment to implement the vision



# Guiding Principles

- Long-Term, Integrated Planning
- Pragmatic, Cost Effective Approach
- Flexible, Adaptable Policy





# Waste Management

6.11 mil tonnes  
generated in 2009

- **57% recycled**
  - National Recycling Programme
- **41% incinerated**
  - Waste-to-Energy: 2-3% of electricity needs
- **2% landfilled**
  - Last for 40 years, part of future landstock
  - Biodiversity haven



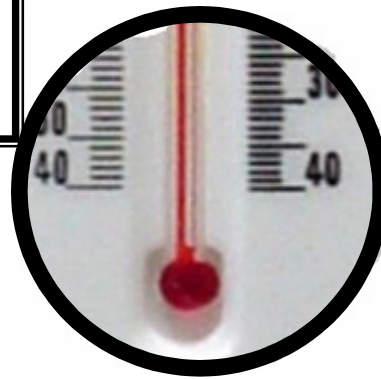
# Future Challenges



**Future growth in economy & population will strain the environment**



**Resources becoming scarcer worldwide**

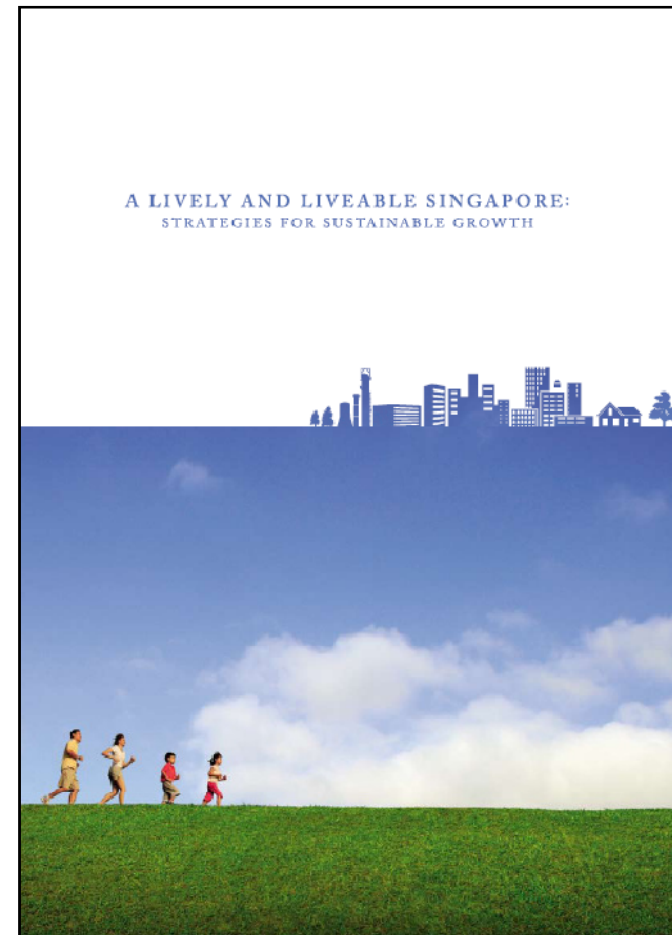


**Climate Change**



# National Strategy for Sustainable Development

*“Making Singapore a liveable & lively city state, one that Singaporeans love and are proud to call home”*



Ministry of the Environment  
and Water Resources





Key Challenges:

Demands of economic and population growth

Growing resource constraints worldwide

Mitigating Climate Change

Vision:

**“A LIVEABLE and LIVELY city state, one that Singaporeans love and are proud to call home”**

Key Thrusts:

**1. Resource Efficiency**

**2. Liveable Environment**

**3. Capability Building**

**4. Sustainable Community**



# Key Targets – Resource Efficiency

Focus Area	Key Targets (by 2030 unless otherwise indicated)
Energy Efficiency	<b>35%</b> reduction in energy intensity (consumption per dollar GDP) from 2005 levels
Water Consumption	<b>140L/day</b> Domestic Water Consumption per Capita
Waste Recycling	<b>70%</b> Overall Recycling Rate



# Key Targets – Liveable Environment

Focus Area	Key Targets (2030 unless otherwise indicated)
Air Quality	<b>12 ug/m<sup>3</sup></b> Annual Mean of PM2.5 (2020) <b>15 ug/m<sup>3</sup></b> Annual Mean of SO <sub>2</sub> (2020)
Green & Blue Spaces	<b>50 ha</b> more Skyrise Greenery <b>900 ha</b> more Green Space and <b>360km</b> of Park Connectors (2020) <b>0.8 ha</b> of Green Space per 1000 population <b>900 ha</b> Water Bodies and <b>100km</b> Waterways open for Recreational Activity



# Recycling

- 70% overall recycling rate by 2030
- Recycling facilities for all residents
  - mandatory provision in condominiums and private apartments
- \$8 million 3R (Reduce, Reuse and Recycle) Fund
- Study measures to recycle waste streams with low recycling rates e.g. food waste





# Building Capability

## Singapore as Knowledge Hub and Provider of Sustainable Development Solutions

- International knowledge-sharing
  - World Cities Summit (every 2 years)
  - Singapore International Water Week (annual)
  - International Solid Waste Association (ISWA) Annual World Congress (Singapore - 2008)
  - Regional 3R Forum in Asia (Singapore – 2011)





# Asia Sustainable Packaging Summit 2010

25 – 26 Oct 2010 | The Pines | Singapore

*Building Brands and Driving Sales Through Sustainable Packaging  
Held in Conjunction with 3R Packaging Award 2010 and Singapore Packaging STAR Award 2010*

## Keynote Speakers:

Dr Michael Braungart  
CEO of Environmental Protection &  
Encouragement Agency,  
Founder of Cradle to Cradle Framework



Mr Joachim Quoden  
General Manager PRO EUROPE



**Topics:** Materials Management, Sustainability Practices, Waste Managements, Innovation in Packaging, Brand Building, etc

Include site visits to waste management facilities and industrial plants like Semakau Landfill and Tetra Pak

For more information: [www.packagingasia.tpgi.org](http://www.packagingasia.tpgi.org)

# Environmentally Responsible Community

## Households

- **Educate:** 10% Energy Challenge, 10-Litre Challenge

## Local Community

- District Sustainability Plans by each of five Community Development Councils to support the national blueprint
  - Outreach to more than **700,000 households**

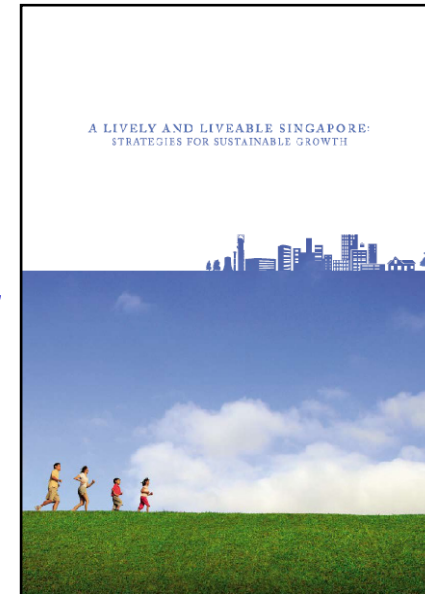
## Schools

- Review and update curriculum of environment-related subjects
- Sustainable Development outreach to school principals through Ministry of Education
- Study development of a prototype “**sustainable school**”



# Sustainable Singapore Blueprint Website

[www.sustainable singapore.gov.sg](http://www.sustainable singapore.gov.sg)





# Thank you

