



# Institute for National Transformation

## Lecture 28

### The Role of Quality Infrastructural Systems in National Development

# Objectives



1. To understand the critical need of infrastructure
2. To appreciate the infrastructure access gap
3. To draw lessons from the Singapore model



# Definition of Infrastructure

- Infrastructure is a set of assets needed to supply certain desired services.

“Infrastructure is the fundamental facilities and systems serving a country, city, or other area, including the services and facilities necessary for its economy to function. Infrastructure is composed of public and private physical improvements such as roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications (including Internet connectivity and broadband speeds).”

*(Source: Wikipedia)*

# *Examples of outstanding infrastructure*



Hangzhou bay bridge 35km completed in 2007



# *Examples of outstanding infrastructure*



Nile bridge, Jinja

# The need for infrastructure



*Metro  
station in  
Japan*

Infrastructure spurs economic growth and improves quality of life

- Economic – improves efficiency and productivity
- Improved quality of life attracts talent, hosts of corporate head quarters



# Poll 1 - questions

What's the importance of infrastructure development?

- a) For economic growth
- b) To improve the quality of life
- c) A & B
- d) None of the above



# Results of Poor Infrastructure







# Benefits of Good Infrastructure



**The Changing Face of  
Kampala:**  
Many real estate projects though  
poverty and slums still very  
evident in the city

# Challenges in building infrastructure



1. Needs a coordinated master plan
2. Should accommodate growing population
3. Maintenance to extend the asset's service life



# Infrastructure and Poverty Reduction



- The linkage between infrastructure services and economic growth was recognized in the 1970s and 1980s.
- The “Voices of the Poor” survey published in 2000 validated the finding that the linkage was strong.
- Poor people pointed to the dramatic impacts that access to potable water, sanitation or to a road made to the quality of their lives.
- **Millennium Development Goals**





## Poll 2 - questions

Which of the items listed below is a critical requirement in infrastructure development?

- a) Finances
- b) Good scenery
- c) Good citizens
- d) Coordinated development

# Wisdom in making decisions:

- In all sectors **too much, too little, or poorly judged infrastructure** may cause undesirable environmental, social and cultural impacts.
- **Too much** - e.g. excessive road development in sensitive areas, or loss of heritage for water infrastructure - can cause unnecessary environmental, social or cultural damage.
- **Too little** infrastructure can mean the loss of opportunities to advance social, cultural or environmental goals



# The Access Gap

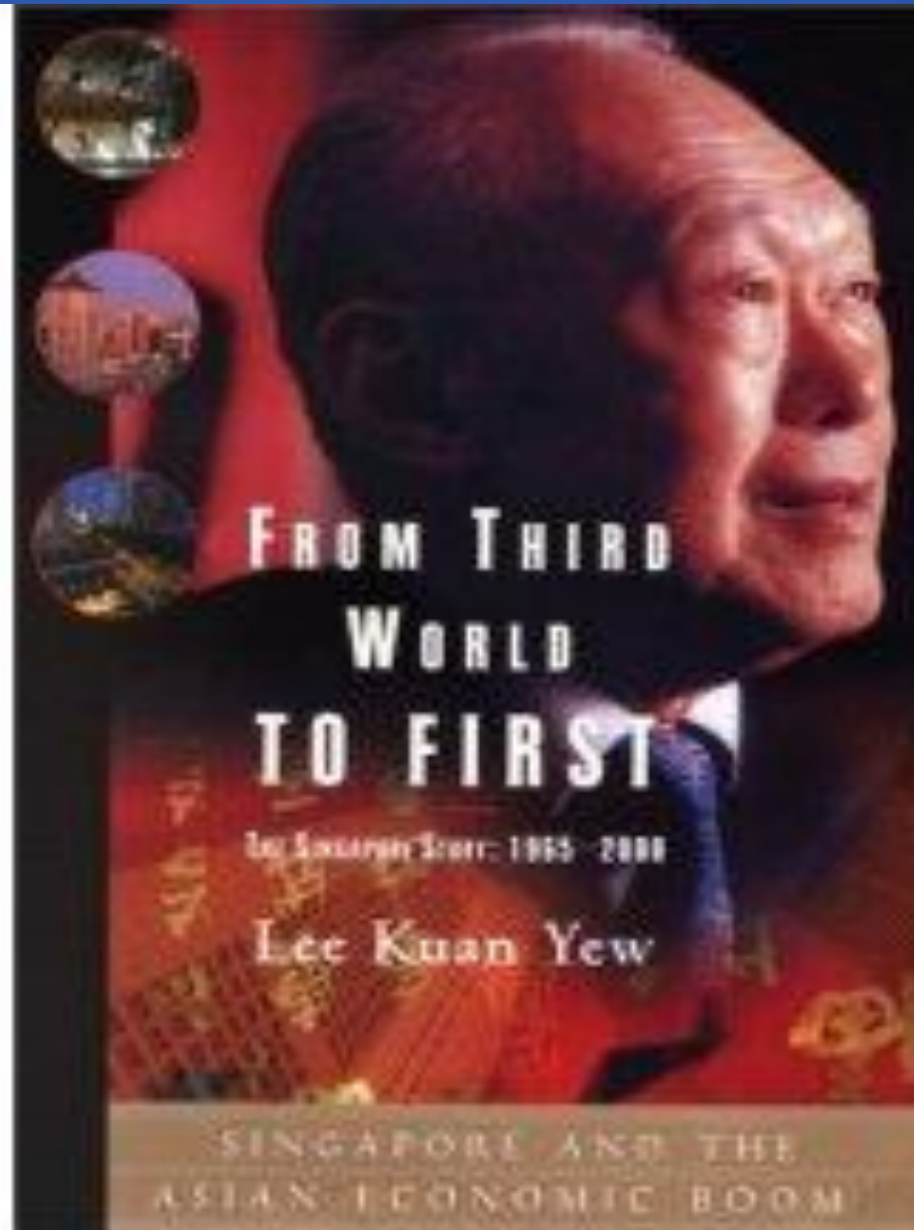
An estimated:

- 1.1 billion people live without safe water
- 1.6 billion people live without electricity
- 2.4 billion people live without sanitation
- More than 1 billion people are without access to an all-weather road or telephone services.
- The gap is most pronounced in Sub-Saharan Africa and Asia.





# From Third World To First Story of Singapore from 1965-2000



# Singapore – 60s





# Singapore Today



Changi airport – voted world's best airport 6times





# The Role of Infrastructure in National Development

## Chapter 4, Page 56 1<sup>st</sup> Paragraph

Professor Ray Vernon of Harvard Business School showed him how “...Reliable and cheap air and sea port made it possible to move industries into new countries, provided their people were disciplined and trained to work the machines, and there was stable and efficient government to facilitate the process for foreign entrepreneurs.



# Infrastructure & Processes

## Government Taking the Lead

### Chapter 4, Page 61 1<sup>st</sup> Paragraph

The government played a key role in attracting foreign investments; **we built the infrastructure and provided well-planned industrial estates,** equity participation in industries, fiscal incentives, and export promotion. Most important, we established good labor relations and sound microeconomic policies, the fundamentals that enable private enterprise to operate successfully. **Our largest infrastructure development was the Jurong industrial estate, which eventually covered 9000 acres, with roads, sewers, drainage, power, gas, and water all laid out.**

# Another Example: Dubai

## Dubai – 1981



## Dubai – Today







# THE POWER OF NOW



SHEIKH MOHAMMED,  
THE PRIME MINISTER OF THE UAE AND THE  
RULER OF DUBAI, IN AN INTERVIEW

I LOVE



I WANT MY PEOPLE  
**TO LIVE BETTER NOW**

TO GO TO

**HIGH SCHOOL NOW**

*To go to*

**GOOD HEALTH CARE NOW  
NOT AFTER 20 YEARS**

HIS HIGHNESS SHEIKH MOHAMMED  
BIN RASHID AL MAKTOUM

# Poll 3 - questions

The objectives of this module are:

- a) To understand the critical need of infrastructure
- b) To appreciate the infrastructure access gap
- c) To draw lessons from the Singapore model
- d) None of the above
- e) All of the above



# Where do we go from here?

1. Do you occupy a position of influence?
2. If so, What's been your impact?
3. Do you pick interest in infrastructure development in the country, district, village?
4. Do you participate in stakeholder engagements?

National transformation is not about being a spectator its about folding our sleeves



# The Silos – classic example





# The Silos in full operation - implications

1. At Project Design, the **needs assessment** of the Sewage drainage was grossly underestimated and the technical stakeholders at the **National Water & Sewerage Corporation** were either poorly consulted or not consulted at all.
2. The Design Capacity of the previously **170 inpatients** was exponentially increased without due process hence loading the design capacity even more.
3. Over load of Drainage resulting into Several Riots were carried out by residents and Members of Parliament which led to summary arrests.
4. As a remedial action **approximately Ugx.4 Billion** has had to be sourced to correct the technical errors that were made at Project Inception.