

Presentation by Civil Service College to

**INFRASTRUCTURE AND ECONOMIC
DEVELOPMENT – SINGAPORE CASE**

26 JUN 2009



Singapore : 1960s

A cluster of red starburst shapes containing the following text:

- Small nation
- Hostile environment
- High unemployment
- Withdrawal of British base
- Low industrial base
- Independence
- Transit trade
- Social unrest
- No natural resources

Singapore : 1960s



3

3-pronged strategy adopted

Enhance existing advantage

- Entrepot trade
- Marine sector
- Oil refinery
- Reduce trade tariff
- Tourism



Build new capability

- Market, capital and technology transfers via foreign investment
- Expand market beyond the region
- Nationalise areas where private sector has no expertise
- Tax incentives

Complementary policies

- Legislation-institutional framework on labour matters
 - Pro-enterprise bureaucracy
 - Housing/Healthcare policy
- Education policy focusing on technology
 - Population policy

Source : Literature search

4

Infrastructure is an integral part of the strategy



Industrial Park

- Development of Jurong Industrial Estate commenced in 1961



Port

- Development of Keppel Harbour
- First container berth opened in 1972



Airport

- Decision made in 1975 to build Changi Airport

Contributes to success of export-oriented policy via foreign investment

Source : Literature search

5

Singapore's industrialisation story

THEN



NOW

- Small domestic market (less than 2 million people low per capita income) and loss of a common market, i.e. Malaysia
- No natural resource endowment
- Over-dependent on entrepot trade and servicing British navy base
- Minimal industrial base (mainly in non-durable consumer goods)
- Withdrawal of British military base
- Low education base (~60% literacy rate)
- High unemployment (~9%)

- Per capita income of US\$38,000
- Key industries : Electronics, Oil, Pharmaceutical
- Leader in foreign trade and investment (AT Kearney)
- World's easiest place to do business (World Bank)
- No 2 city in the world with the best investment potential (BERI)
- Best skilled labour in Asia-pacific (IMD)

Source : Literature search

6

Singapore is a key trader, investment recipient and owner in the world

- 14th largest merchandise exporter (share = 2.1%) and 15th largest merchandise importer (share = 1.9%) in 2008
- 17th largest commercial service exporter (share = 1.9%) and 15th largest commercial service importer (share = 2.2%) in 2008
- 17th largest recipient of foreign direct investment stock (share = 1.6%) and 18th largest owner of foreign direct investment stock (share = 1.0%)

Source : WTO, UNCTAD

7

Areas with high density, proximity and better linkage to regional and global markets will tend to do better economically

Density

A certain level of economic concentration is required

Distance

Economic distance (cost and time taken for moving goods/ services) from major markets

Division

Integration with the region and global market

Source : World Development Report 2009

8

Infrastructure is a key policy option for countries far from world market

Table 9.4 An instrument per dimension—a simple framework for regional integration

	Region or neighborhood		
	Close to world markets	With big countries far from world markets	Small countries far from world markets
World neighborhoods	Central America and Caribbean, North Africa, Middle East	South America, Southern Africa, East Asia, South Asia	Central Africa, East Africa, West Africa, Central Asia and Caucasus, small Pacific Islands
Dimensions of the regional integration challenge	International division (1-D)	Regional division, economic distance (2-D)	International division, economic distance, low density (3-D)
What policy instruments should facilitate	Integration with large nearby markets	Regional integration Regional and global connectivity	Regional integration Regional and global connectivity Regional compensation mechanisms
Priority instruments			
Institutions	Agreements on trade and factor mobility within region and with large markets nearby	Agreements on trade and factor mobility within region and with large markets nearby Regional provision of public goods	Agreements on trade and factor mobility within region Shared facilities (research, central banks, regulatory bodies)
Infrastructure		Transport corridors connecting to large regional economy Regional power grids, telecoms, water management	Hub-and-spoke infrastructure Regional power grids, telecoms, water management
Incentives			Subsidized human development investments in lagging countries and areas Productive investments in leading countries and areas Preferential market access

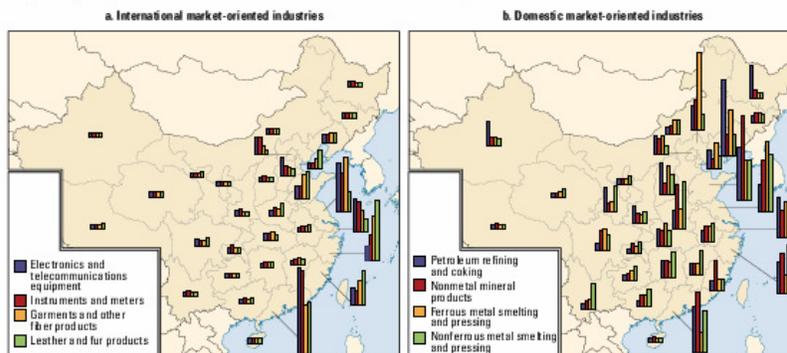
Source: WDR 2009 team.

Source : World Development Report 2009

9

Concentration of export-oriented activities in areas with global connectivity

Map 2.5 Exporting industries concentrate in coastal areas to minimize distance to the global market



Source: He forthcoming.

Source : World Development Report 2009

10

Transport costs matter for export-oriented activities; infrastructure is a key factor in play

BOX 6.7 *Unclogging Latin America's arteries: transport costs now matter more than tariffs*

For the last two decades, the trade policy agenda of Latin America has been dominated by traditional market access and policy barriers issues. It has paid off. Tariffs have come down a lot. Most-favored-nation tariffs fell from more than 40 percent in the mid-1980s to close to 10 percent by 2000. Still, trade agreements continue to dominate policy discussions in the region.

But transport costs are now more important than tariffs. Simple averages of import ad valorem freight range from 6.5 percent in Argentina to 12 percent in Colombia for intraregional freight, and from 7.5 percent in Uruguay to 25 percent in landlocked Paraguay. Freight costs in Latin America and the Caribbean for exports to the United States are—with the exception of Bolivia, Mexico, and República Bolivariana de Venezuela—even higher than intraregional freight.

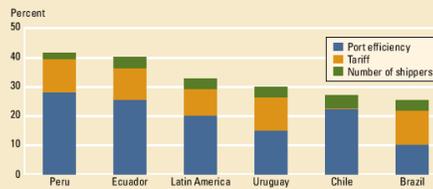
Low port efficiency and weak competition in the maritime transport sector seem to be the culprits (see figure to the right). On average, transport costs in Latin America would decline by 20 percent if countries in the region had U.S. levels of port efficiency.

A reduction of transport costs would bring about substantial benefits. A 10-percent decrease in trade costs would increase the region's imports by 50 percent and intraregional exports by more than 60 percent. The benefits of better transport policies seem to be much larger than lower tariffs. Compared with a similar

reduction in tariffs, the benefits of a fall in transport costs for intraregional exports are almost five times larger and lead to an increase in the number of products exported to the region, which is nine times bigger than a similar reduction in tariffs.

Source: Inter-American Development Bank, forthcoming.

Transport costs now matter more for trade
Percentage change in transport costs by making port efficiency, tariff rates, and number of shippers the same as U.S. levels, base year 2005

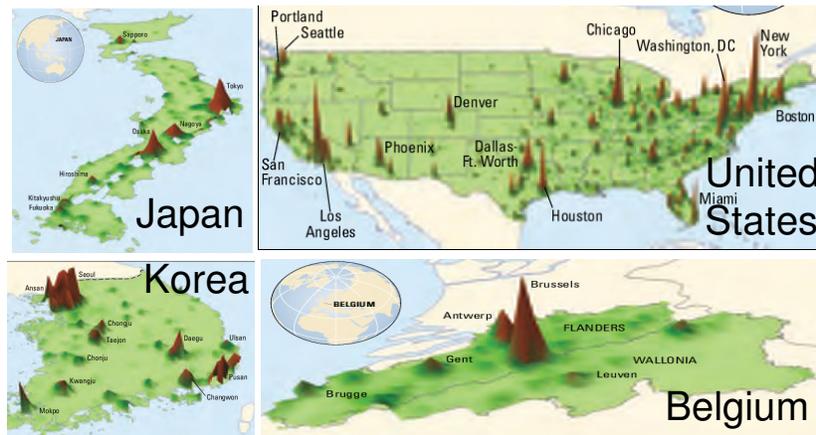


Source: Inter-American Development Bank, forthcoming.

Source : World Development Report 2009

11

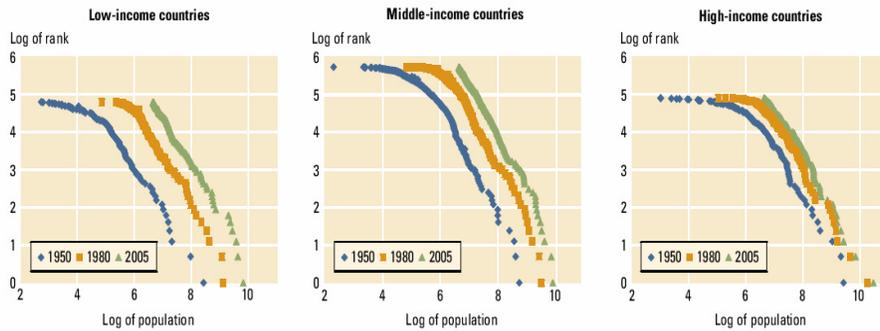
Agglomeration has resulted in economic concentration in countries



Source : World Development Report 2009

12

Economic concentration is a global phenomenon



Source: United Nations 2006c.
 Note: Each data point represents an agglomeration area of population size of 750,000 or more.

Source : World Development Report 2009

13

Infrastructure is also key for income distribution to lagging areas

Table 3 "An I for a D?" A rule of thumb for calibrating the policy response

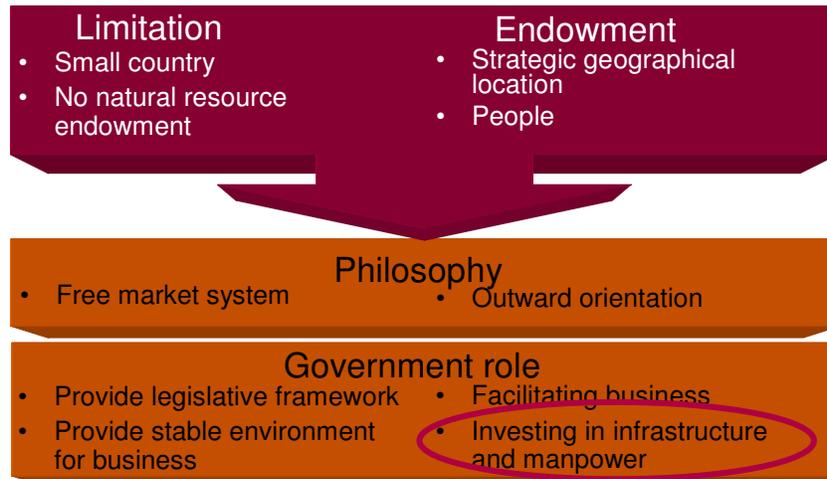
Complexity of challenge	Place type—local (L), national (N), and international (I) geographic scales	Policy priorities for economic integration		
		Institutions Spatially blind	Infrastructure Spatially connective	Interventions Spatially targeted
One-dimensional problem	L. Areas of incipient urbanization N. Nations with sparse lagging areas I. Regions close to world markets	●		
Two-dimensional challenge	L. Areas of intermediate urbanization N. Nations with dense lagging areas I. Regions distant from world markets	●	●	
Three-dimensional predicament	L. Areas of advanced urbanization that have within-city divisions N. Nations with dense lagging areas and domestic divisions I. Regions distant from markets with small economies	●	●	●

Source: WDR 2009 team.
 Note: Throughout the Report, areas are within-country economic neighborhoods or administrative units such as states or provinces, and regions are groupings of countries based on geographic proximity.

Source : World Development Report 2009

14

Infrastructure is only part of the policy formula



Source : Literature search

15

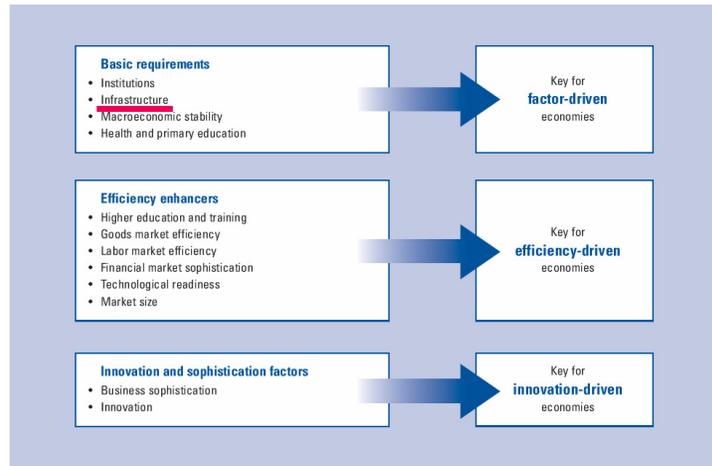
Singapore has to constantly adjust its policies although it has a world-class infrastructure

1978 - 1985	1986 - 1997	Post-1997
<ul style="list-style-type: none"> • Tight labour market with upward pressure on wages • Emergence of lower-cost developing countries, which become strong contenders for foreign investment 	<p>Challenges</p> <ul style="list-style-type: none"> • More mature economy with slower growth • Rising cost with resource constraints • More intense competition • Low technology base on global basis <p>Strategy</p> <ul style="list-style-type: none"> • Deepen technology base • Cluster development • Promote manufacturing and services as twin pillars of economy • Regionalisation 	<ul style="list-style-type: none"> • Hit by the Asian financial crisis in 1997 through linkages with the regional economies • Affected by synchronised downturns in major developed countries and global electronics industry in 2001, and terrorist attack in US • Rise of large new players like China and India
<ul style="list-style-type: none"> • Wage policy to encourage efficient use of labour • Manpower development via training • Encouraged automation, mechanism and computerisation • Shifted towards higher value-add investment promotion 		<ul style="list-style-type: none"> • Expand external ties through multilateral trading framework and bilateral negotiation • Maintain competitiveness and flexibility to remain price competitive • Promote entrepreneurship and domestic companies • Grow manufacturing and services • Develop human resources

Source : Ministry of Trade and Industry

16

In fact, infrastructure is a factor under “basic requirements” for measuring competitiveness



Source : The Global Competitiveness Report 2008 - 2009

17

Conclusion

- Infrastructure is important for economic development, especially in a globalised environment
- Infrastructure development is necessary for more equitable income distribution to lagging areas
- Infrastructure development is not a cure-all solution but a part of the economic policy formula

18



The Singapore Public Service:
Integrity • Service • Excellence

THANK YOU



Civil
Service
College