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Comments on Singapore, Rep.of Korea, Japan

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Viewpoints

- **Spatial Hierarchy - seamlessness**
  - Tokyo: metropolitan(A), center(A), satellite cities(C)
  - Seoul: metropolitan(C), center(A), satellite cities(?)
  - Singapore: metropolitan(A), center(A), satellite(B→A)
- **Strategies or Policy Instruments ?**
  - CUTE Matrix
- **Indicators**

Singapore

- Public Transport System (urban)
  - complete hierarchy (MRT-LRT+Bus)
  - Integrated with land use
- Emission Standard
  - Euro IV (2006)
- Education
- TDM
  - Vehicle Quota System
  - Electric Road Pricing
- Green Vehicles/Fuel

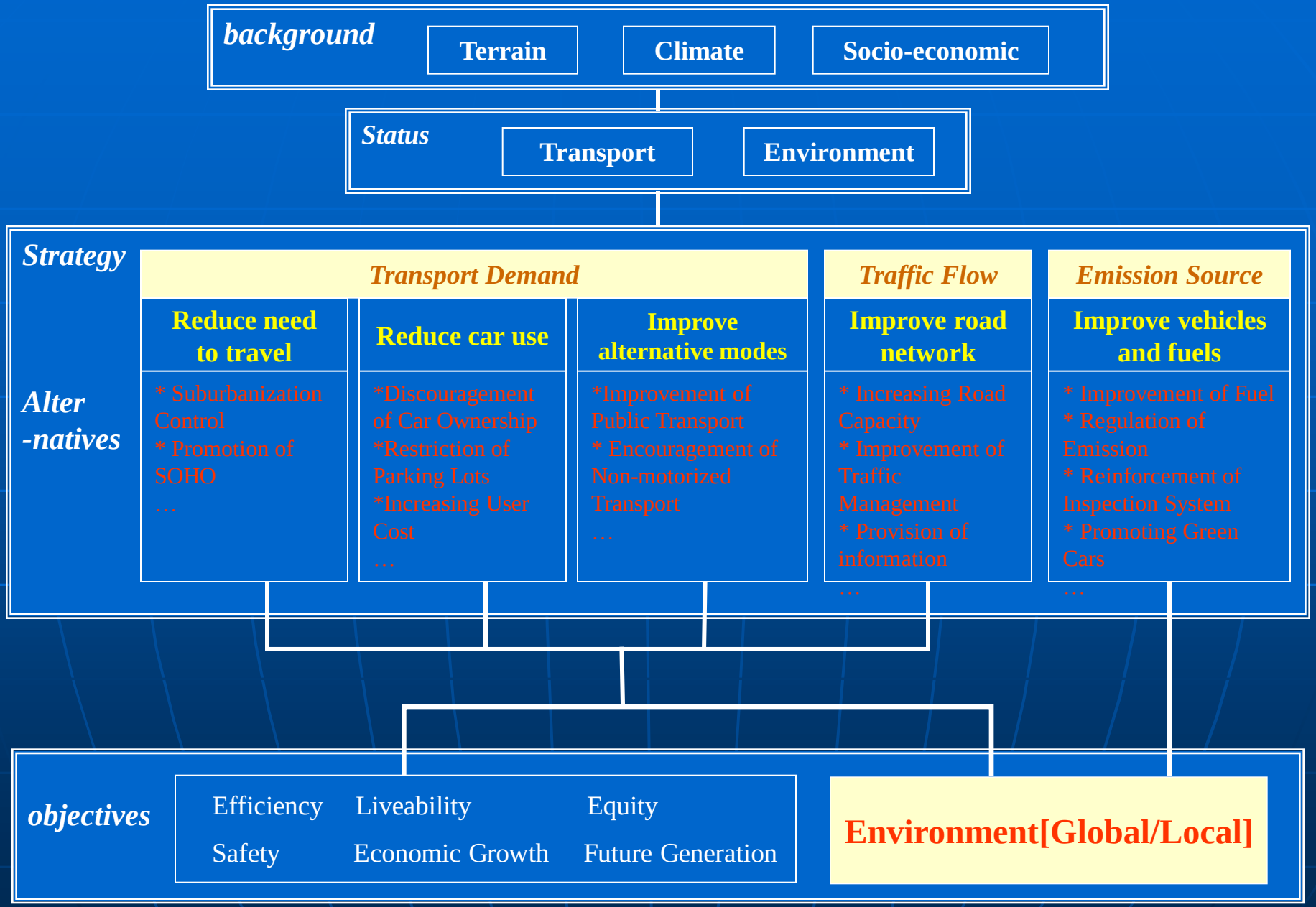
Rep. of Korea

- Sustainable
  - Public Transport
    - Public transport Promotion Act
    - hierarchy (HRT-LRT+BRT-Bus)
    - LRT:5 , BRT:22 route in Seoul Met.Area
  - TDM
    - Congestion pricing: $2 in 2 tunnels
    - Traffic Impact Assessment(TIA)
    - Traffic Inducement Charge(TIC)
      - c.f.Parking reg.charge
  - Green Transport
    - Car free zones
    - Bycycle parkings
    - CNG
- Smart Transport
  - IT tech: TSC
  - ITS: 3 cities
  - Ubiquitas
- Safe Transport
- Silver Urban Transport

Japan

- 1960-70 Air pollution
- Emission standard
  - 2009-2010 world strictest <<Euro IV(2008),US(2010)
- Regulatory measures
  - NOx/PM Law (old vehicles, etc.)
  - Dirty Diesel Ban in Tokyo
- Economic measures
  - Preferential vehicle tax
- Others: good in promotion of projects
  - Public Transport System Conference
  - Mobility management
  - Bio-fuel
  - Model projects of EST
- Transport Policy Dialogues

Objectives and Alternative Strategies of Transport and Land Use Policy



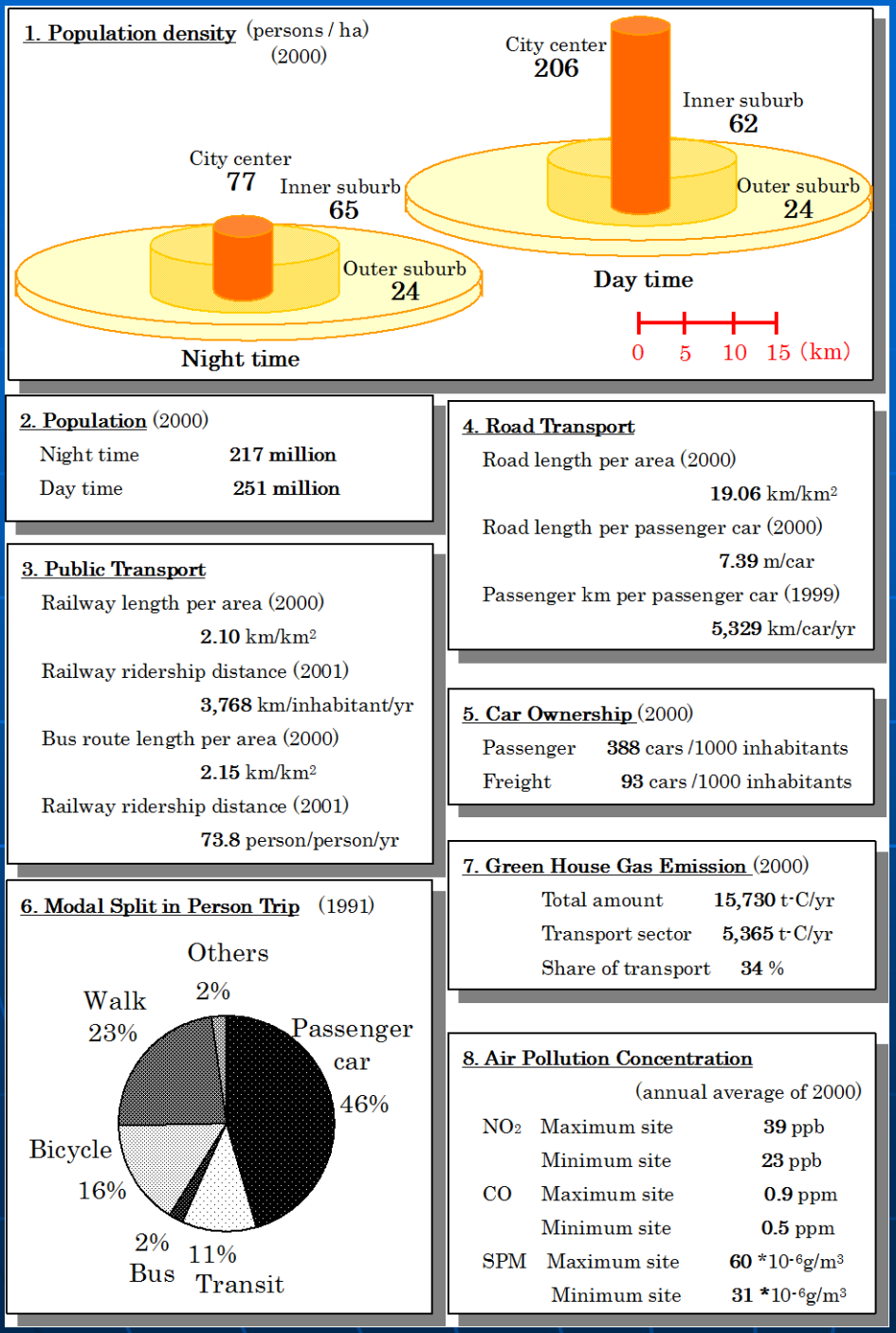
CUTE Policy Matrix

Instruments	Strategies: Reduce need to travel	Reduce car use	Improve alternative modes	Improve road network	Improve vehicles and fuels
Technology: Infrastructure Vehicles/Fuel	Transit oriented development …	Pedestrian streets Community roads Traffic calming	New public transport vehicles Provision of public transport	New roads Traffic control ...	LEVs ZEVs Alternative fuels ...
Regulation: Management Control/Patrol	Land use regulations Sub-urbanization control ...	Access permits Parking restrictions ...	Bus priorities Service improvements ...	Traffic management Urban traffic control ...	Emission regulations Restriction of low-quality fuel Vehicle inspection system
Information: Advice Awareness Communication	Teleworking Promotion of SOHO ...	Awareness campaigns ...	Real time public transport information Route guidance /information	Driver route guidance Safety guidance Traffic information provision	Eco- consciousness ...
Economy: Charges Taxation Subsidies	Land taxes ...	Road pricing Fuel taxes Vehicle taxes ...	Fares policy Financing of public transport Improvement of public transport operations	Road pricing Parking charges ...	Fuel taxes Green taxes ...

City Profile Form

- One sheet for a city
- Main features
- For comparing the cities

1. Population density and the distribution
2. Population
3. Public Transport
4. Road Transport
5. Car Ownership
6. Passenger Modal Shares
7. CO2 Emission
8. Air Pollution



1. Population density (persons / ha) (2000)

2. Population (2000)

Night time	**217 million**
Day time	**251 million**

3. Public Transport

Railway length per area (2000)
2.10 km/km²

Railway ridership distance (2001)
3,768 km/inhabitant/yr

Bus route length per area (2000)
2.15 km/km²

Railway ridership distance (2001)
73.8 person/person/yr

4. Road Transport

Road length per area (2000)
19.06 km/km²

Road length per passenger car (2000)
7.39 m/car

Passenger km per passenger car (1999)
5,329 km/car/yr

5. Car Ownership (2000)

Passenger	**388** cars /1000 inhabitants
Freight	**93** cars /1000 inhabitants

6. Modal Split in Person Trip (1991)

7. Green House Gas Emission (2000)

Total amount	**15,730** t-C/yr
Transport sector	**5,365** t-C/yr
Share of transport	**34** %

8. Air Pollution Concentration

(annual average of 2000)

NO_2	Maximum site	**39** ppb
	Minimum site	**23** ppb
CO	Maximum site	**0.9** ppm
	Minimum site	**0.5** ppm
SPM	Maximum site	**60** *10^{-6}g/m³
	Minimum site	**31** *10^{-6}g/m³