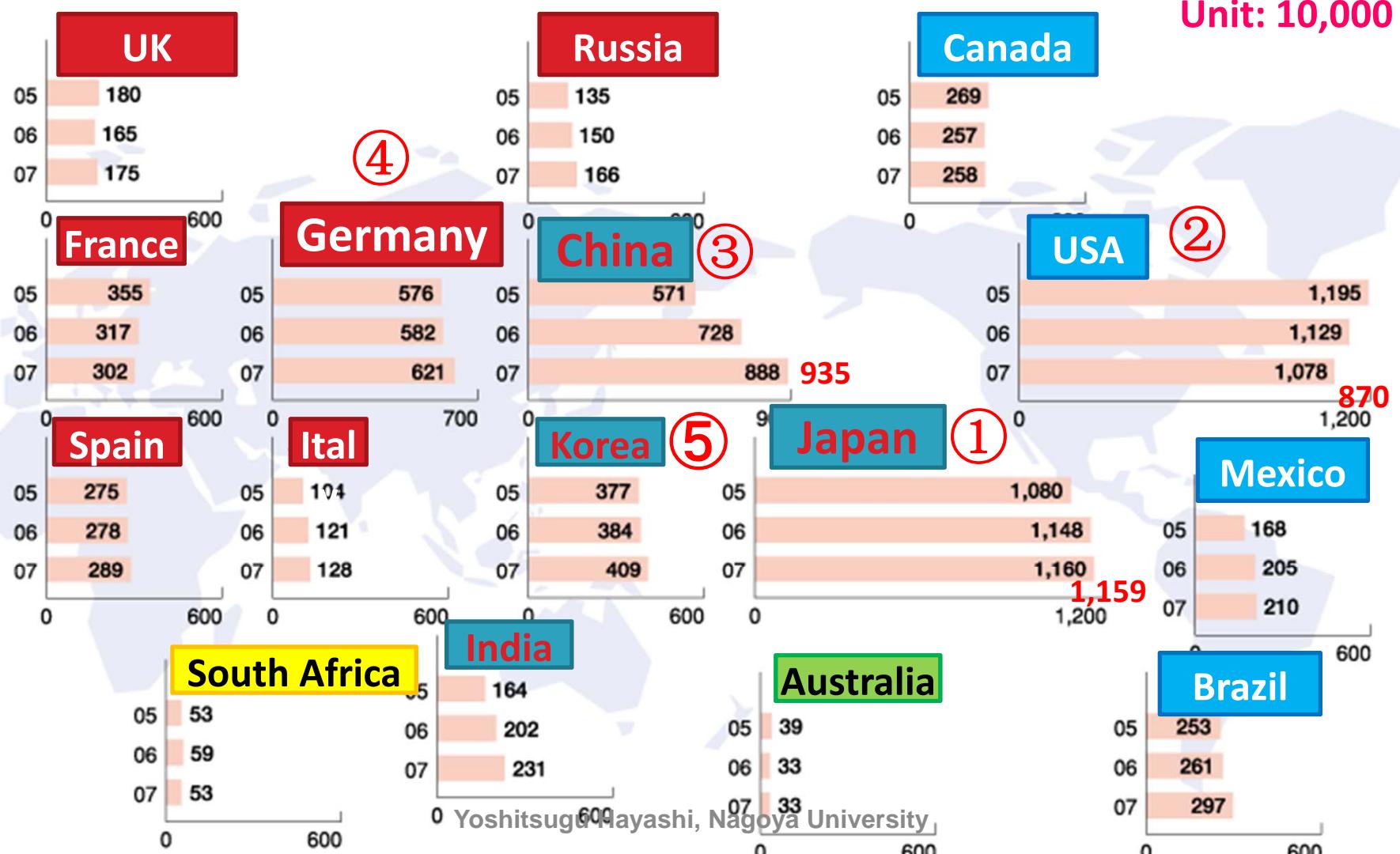
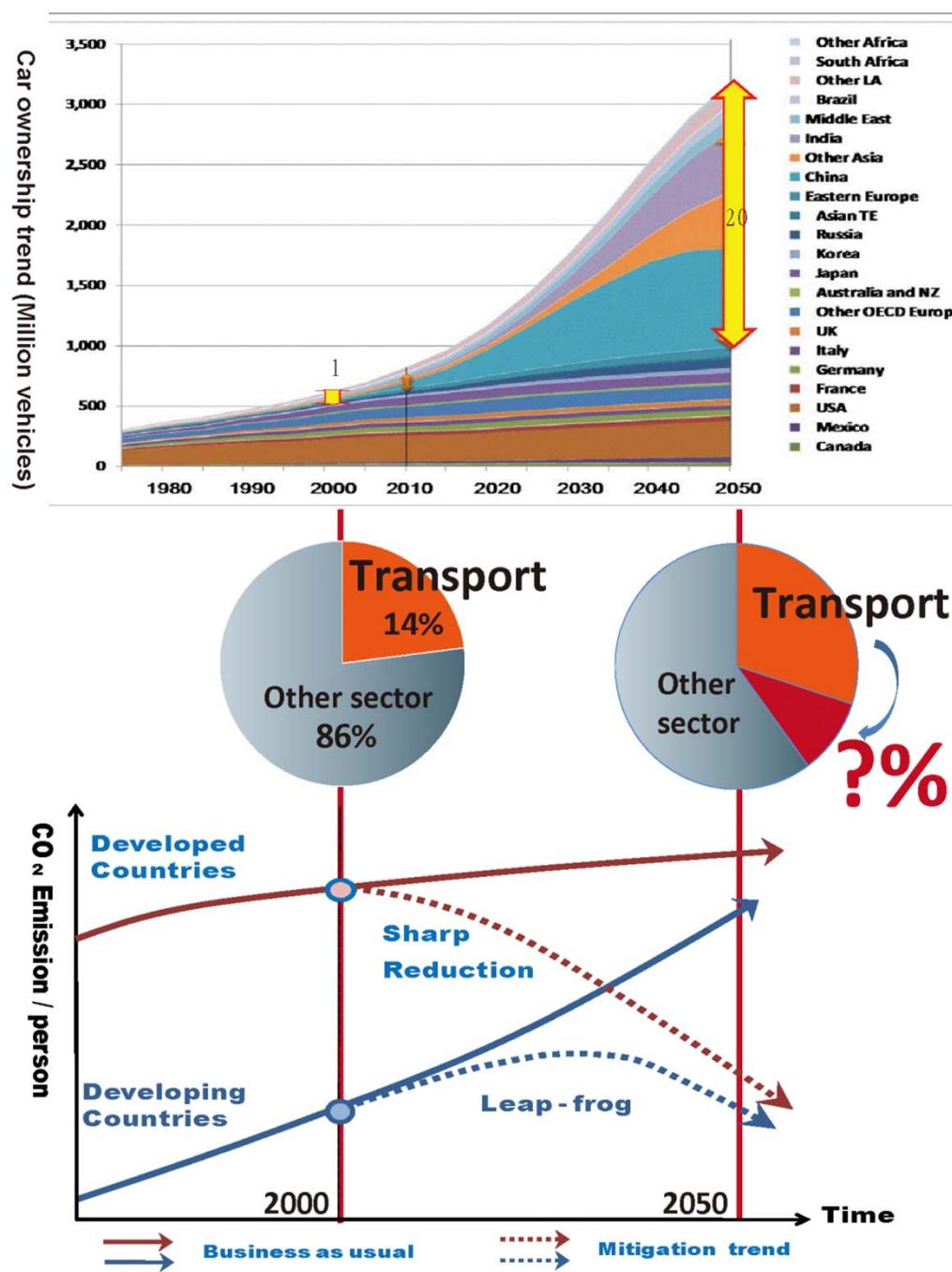


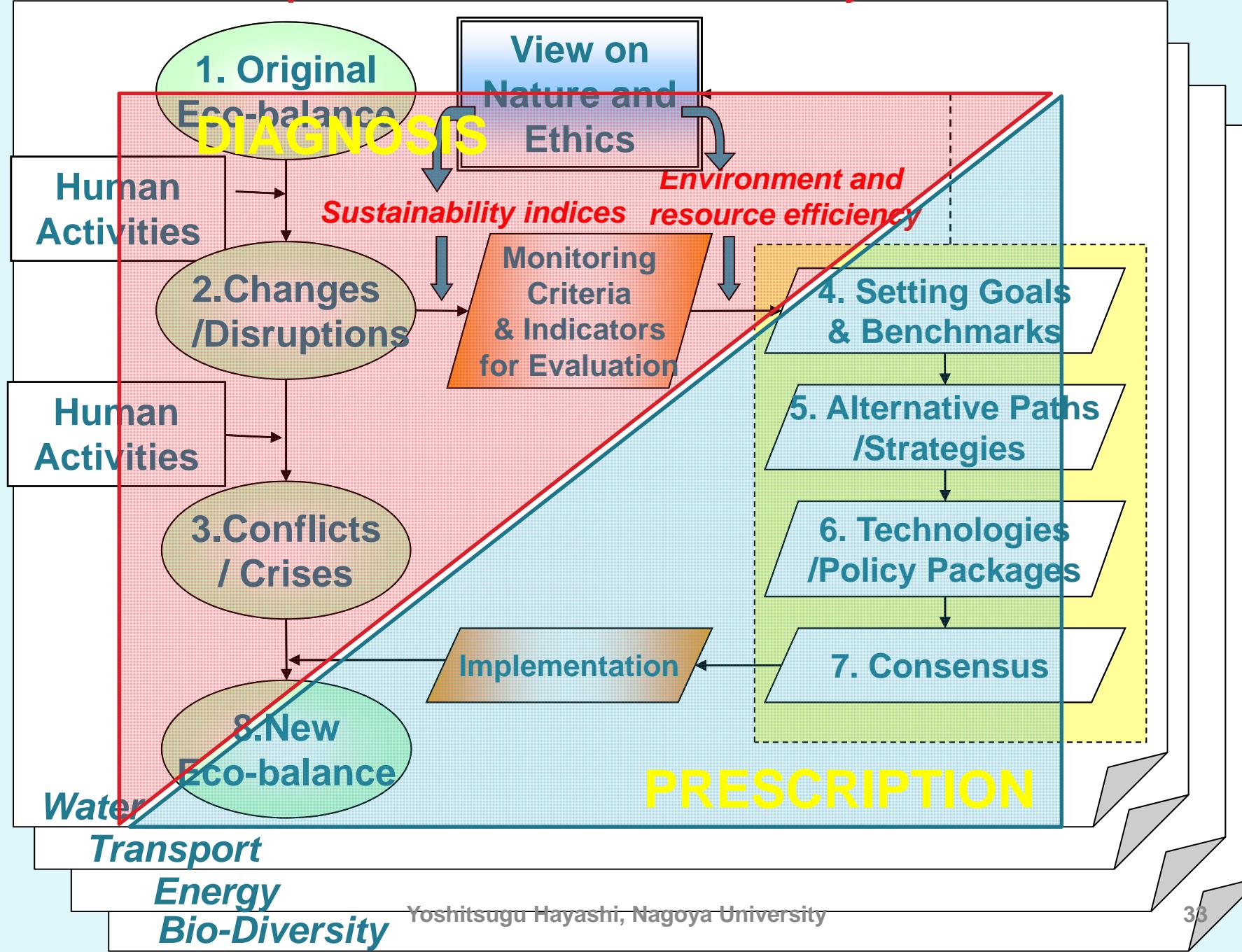
Increasing Use of Automobile

Automobile Production in the world (2005, 2006, 2007)

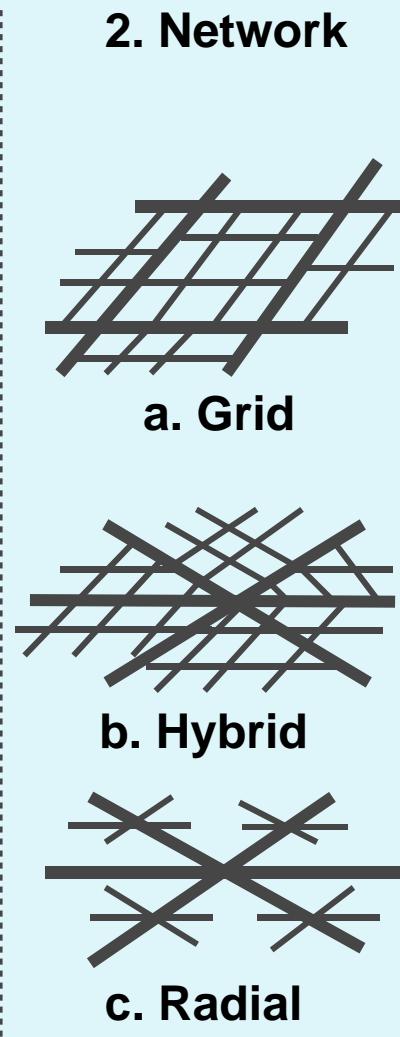
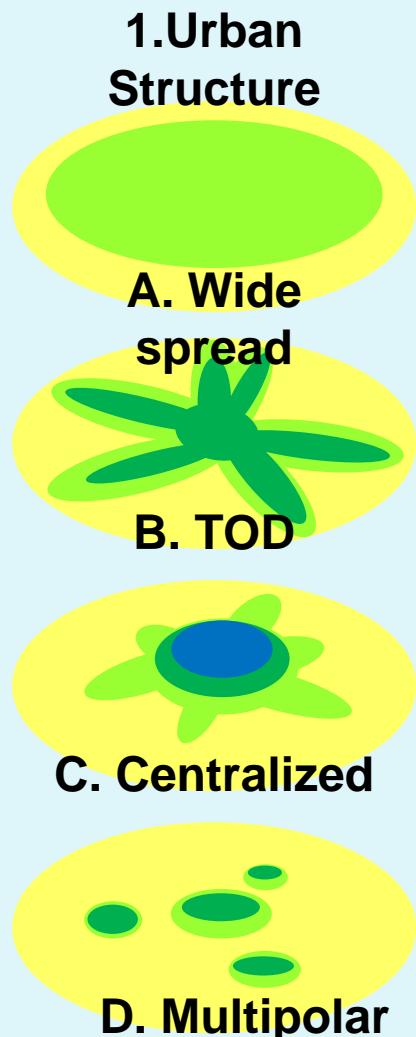




Proposed Process for Sustainability Studies



Factors to Setup Future Vision of Low-carbon Transport System in Asia

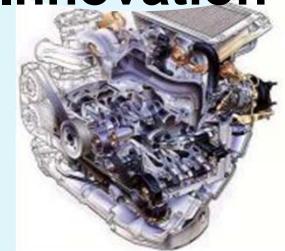


3. Hierarchy among modes

- 1) Urban Rail
|
Bus
- 2) Urban rail
|
Para-transit
- 3) BRT
|
Bus
- 4) BRT
|
Para-transit

4. Technology by mode

Technological Innovation



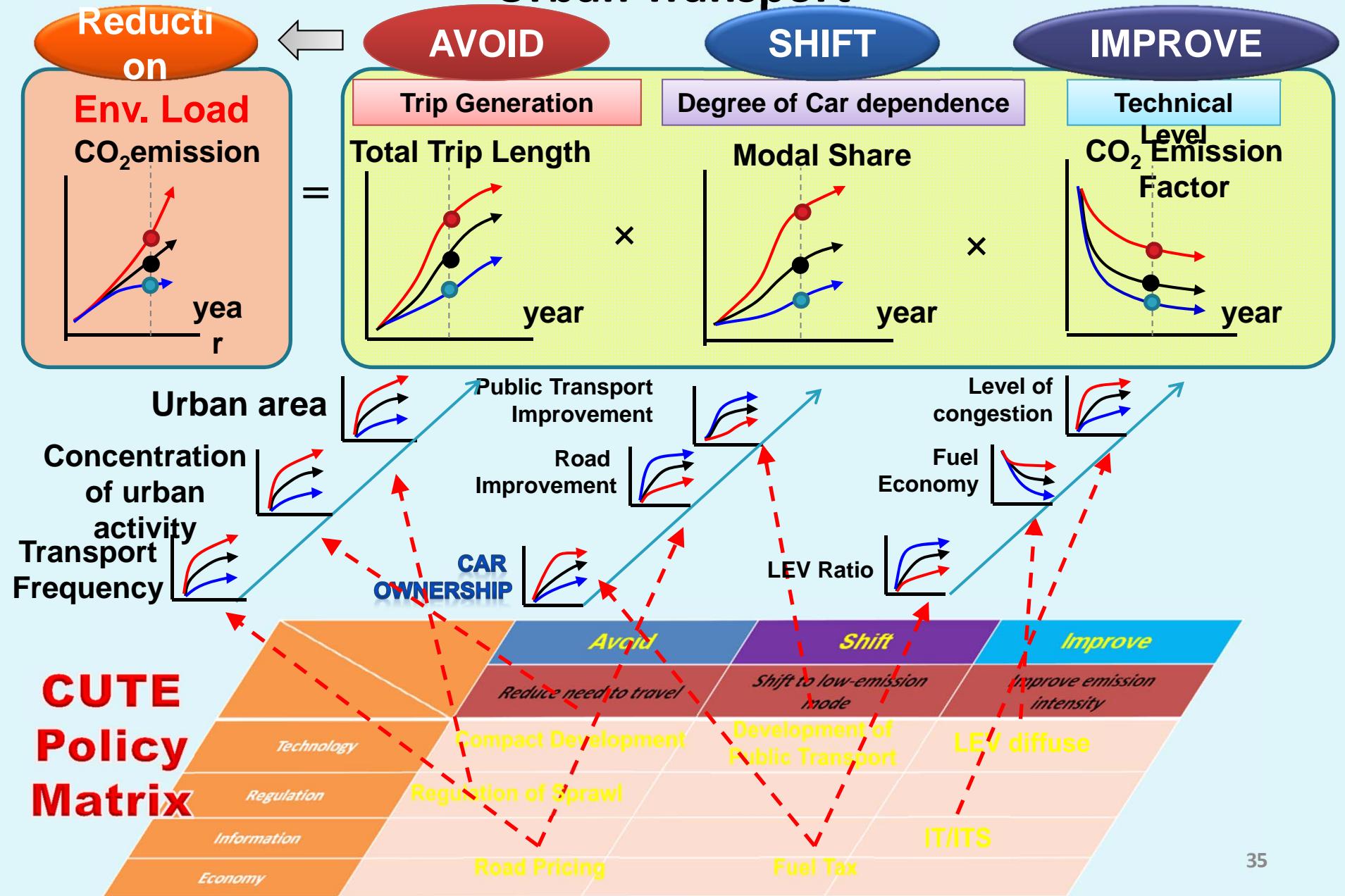
New system



Combination considering characteristics of each city

Seeking future image of low-carbon transport

Structural Formula for Environmental Load from Urban Transport



Transport Strategy - Techno/Policy Instruments

		Strategy		
	CUTE Matrix	Avoid	Shift	Improve
		Reduce traffic demand	Reduce emissions per unit transported	Reduce emissions per kilometer
Instruments	Tech nology	<ul style="list-style-type: none"> ■ Pedestrian Ort Dev't ■ Bicycle Ort Dev't ■ Transit Ort Dev't 	<ul style="list-style-type: none"> ■ Integrated Public Transport System (BRT+ParaTransit) ■ Highly Competitive Railway 	<ul style="list-style-type: none"> ■ LEV, EV ■ Alternative Energy ■ Advanced Infra- Tech ■ Logistic Efficiency
	Regulation	<ul style="list-style-type: none"> ■ TDM ■ Parking Regulation ■ Compact/Mix Land Use 	<ul style="list-style-type: none"> ■ Bus/Tram Priorities ■ Non-MT ■ Smarter Modal Evolution 	<ul style="list-style-type: none"> ■ Emission Standard ■ Top Runner Program ■ Eco-Drive
	Information	<ul style="list-style-type: none"> ■ ICT ■ Telework ■ Smart Choices for Workplace and Schools 	<ul style="list-style-type: none"> ■ Awareness Campaign 	<ul style="list-style-type: none"> ■ Knowledgebase ■ ITS ■ Labeling of Vehicle Performance
	Economic	<ul style="list-style-type: none"> ■ Fuel Tax ■ Road Pricing ■ Car Charge / Fee ■ Location Subsidy 	<ul style="list-style-type: none"> ■ Fuel Tax ■ Road Pricing ■ Car Charge / Fee 	<ul style="list-style-type: none"> ■ Fuel Tax ■ LEV Preferential Tax

Bangkok in 2002



Photo by Hayashi



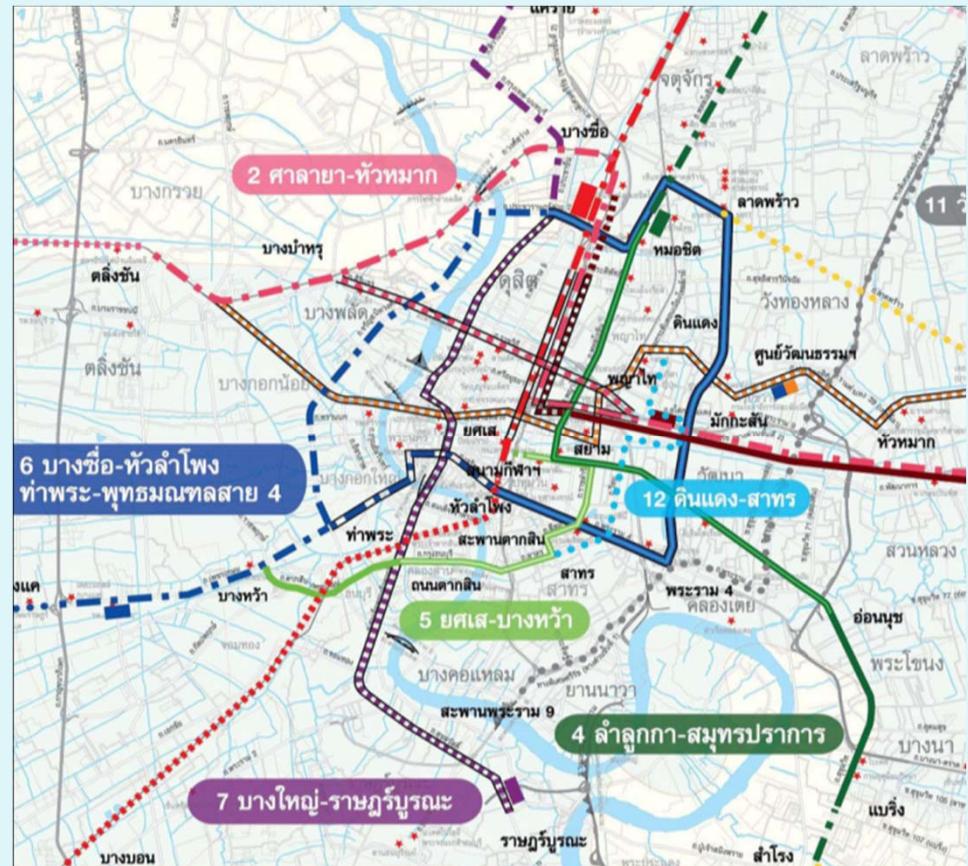
Bangkok

Mass-transit Network of Future Bangkok

2010 84.8km

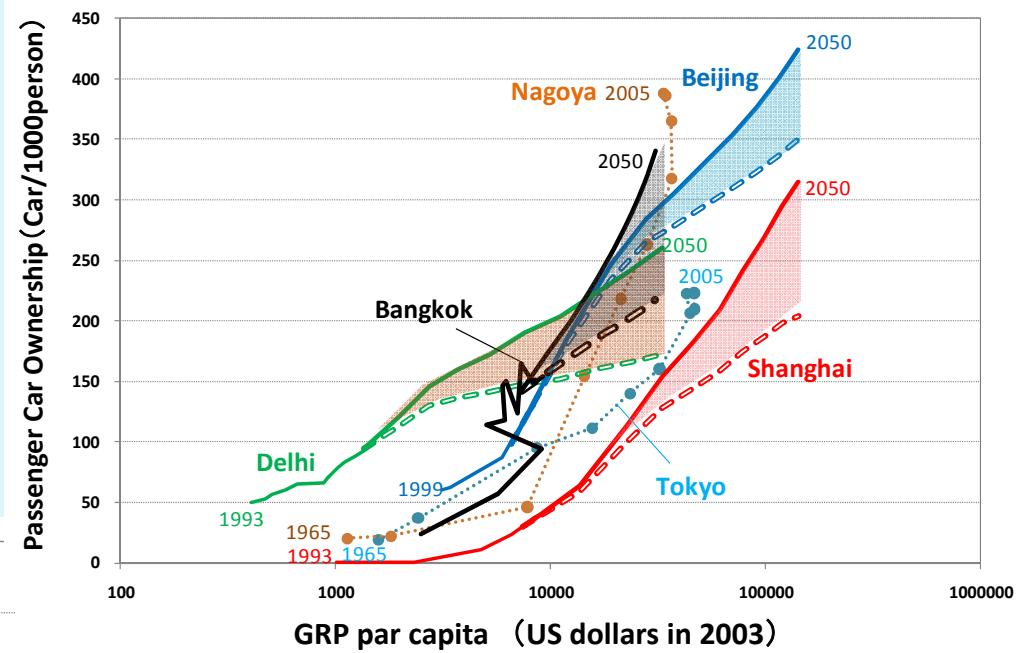
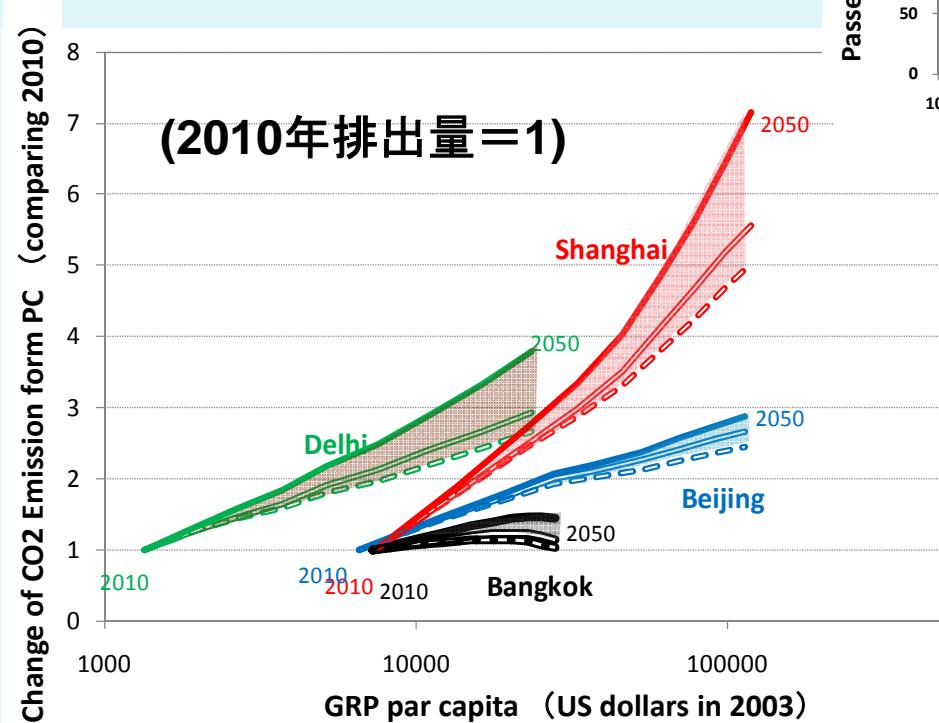
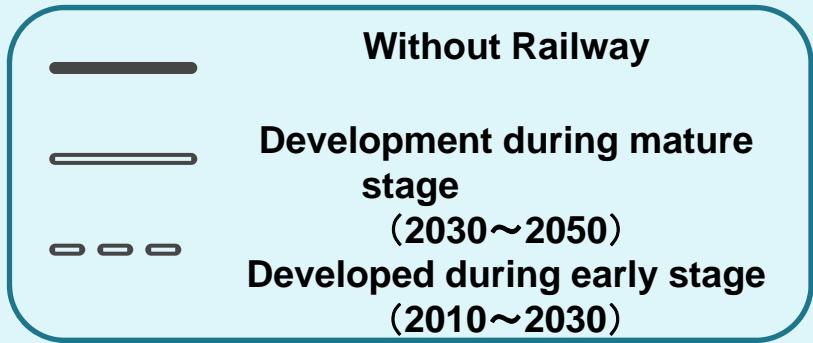
planning:
2016 236km
2019 391km
2029 509km (12lines)

Master Plan Study to adjust rail mass transit system in Bangkok and its vicinity (2010)



CO₂ Emission Reduction from Passenger Car by Railway Development

By 2050, railway will be developed as same level in Tokyo in 2005.



If railway might be developed during early stage, 36% of CO₂ can be reduced. If including technological innovation, around 80-86% of CO₂ can be reduce.