

## THE ROLE AND ACTIVITIES OF A CITIZEN COMMITTEE IN THE PROCESS OF BUS REFORM IN SEOUL

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## Outline

- ❑ A Brief History of Public Transport
- ❑ Seoul Transport Indicator
- ❑ Bus Reform Overview
- ❑ Bus Reform Citizens Committee
- ❑ A Brief Before-After Comparison
- ❑ Performance Evaluation & Lessons

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## A Brief History of Public Transport

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### 1950s

- Korean War (1950-1953)
- War restoration work started
- Walk, bicycle dominant travel patterns



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### 1960s

- Urbanization and industrialization
- Migration from rural to urban areas
- Bus dominant travel patterns



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### 1970s

- Over-concentration of population in Seoul
- First subway line built in Seoul in 1974
- Still bus dominant travel patterns
- Gradual increase in car ownership



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### 1980s

- Increase in subway passengers
- Decline in the number of bus passengers
- Car ownership (one million in 1985)
- Traffic impact assessment (TIA)
- Transportation system management (TSM)



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### 1990s

- Emerging sustainable development paradigm
- Severe air pollution due to traffic congestion
- Congestion charging system
- Car ownership (ten million in 1997)
- Eight subway lines (287 km) in Seoul completed



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### 2000s

- Public awareness of pollution, congestion, accidents
- Sustainable transport paradigm emerged
- Bus reform project implemented in July 2004
- Bus rapid transit (BRT) system introduced
- CheongGyeCheon restoration completed on 1 Oct 2005
- The transport disadvantaged
- Transit-oriented development (TOD)

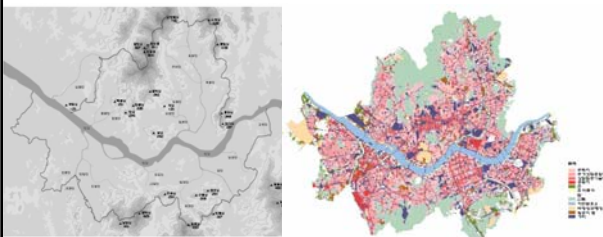


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## Seoul Transport Indicator

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## SEOUL'S TOPOLOGY & LAND USE



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## POPULATION & VEHICLES

Population: doubled

Registered vehicles: 46 times

1970: 5.4 million

1970: 60,000

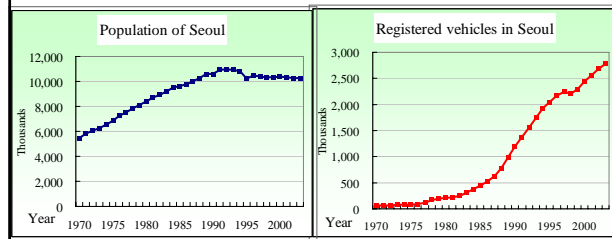
1990: 10.9 million

1990: 1.2 million

2006: 10.4 million

2006: 2.9 million

Population density: 17,000 persons/km<sup>2</sup>



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## TRANSPORT INDEX

	1996	2006	Growth rate (%)
Population (1,000)	10,470	10,365	△ 1.0
Vehicular trips/day (1,000)	27,800	31,387	1.2
Vehicles (1,000) (Passenger cars)	2,168 (1,628)	2,857 (2,140)	2.8 (2.8)
Parking space (1,000)	1,225	2,808	8.6

	1996	2006	Growth rate (%)
Subway length (km)	219	287	2.7
Median bus lanes (km)	4.5	67.9	31.2
Bikeway length (km)	164	649	14.7

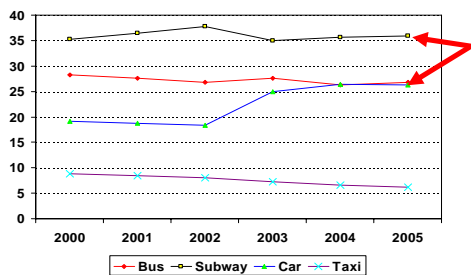
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## MODE SHARE

	Bus	Subway	Bus + subway	Passenger car	Taxi	Others
2000	28.3	35.3	63.6	19.1	8.8	8.5
2001	27.6	36.5	64.1	18.7	8.4	8.8
2002	26.8	37.8	64.6	18.4	8.0	9.0
2003	27.6	35.0	62.6	25.0	7.3	5.1
2004	26.3	35.7	62.0	26.4	6.6	5.0
2005	26.8	35.9	62.7	26.3	6.2	4.9

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## MODE SHARE



Mode shares for the bus and taxi had a downward trend, while those of the subway and car showed an upward trend over the last 10 years. There are small but significant changes in public transport in 2005

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## Bus Reform Overview

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## BUS REFORM BACKGROUND

### External Factors

➤ **SOCIO-ECONOMIC SITUATION**  
Significant drop in bus users due to high car ownership

➤ **TRANSPORT POLICY**  
Changing transport paradigm

➤ **ENVIRONMENTAL ISSUES**  
Concerning air pollution

➤ **BUS INDUSTRY**  
Decreasing bus users due to a vicious cycle

### Internal Factors

➤ **BUS PASSENGERS**  
Demanding better quality of public services

➤ **BUS SERVICE QUALITY**  
Long waiting/arrival times, antiquated buses, poor punctuality

➤ **BUS ROUTES**  
Circuitous/long bus routes passing through congested areas

➤ **BUS COMPANIES**  
Entering bankruptcy/merging of some bus companies

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## BUS REFORM BACKGROUND

- ✓ Looking back, bus reform has been attempted in Seoul several times over the last four decades.
- ✓ One of the more recent, in 1996, was undertaken based on preparations solely by government officials and their research staffs.
- ✓ Opposition of the bus industry and bus users frustrated that reform. Thus the top-down approach by the Seoul city government, without any consultation with stakeholders or citizen groups, proved problematic.



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## BUS REFORM BACKGROUND

✓In addition, in August 2002, to settle transportation problems associated with a stream restoration project (called "Cheonggyecheon") in the center of Seoul, there was a plan to construct an exclusive median bus lane in the northeastern part of the city.

✓The Seoul Metropolitan Government attempted to influence the bus industry, shoppers along the road, and passenger car users through public hearings, presentations, and social meetings but had to abandon the plan due to their strong opposition.

✓This failure led the SMG to search for a new structure of urban governance from the previous government-centered approach.



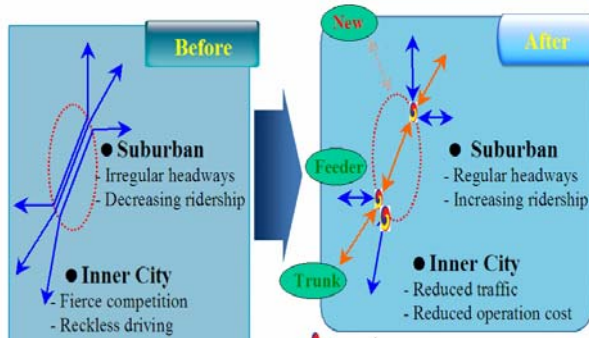
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## BUS REFORM TARGETS

Bus Routes	Trunk with feeders, New bus numbering/coloring
Bus Fares	Integrated fare system, Transfer discount
Semi-Public Operation	Tendering system, Joint revenue allocation
Bus Management System	Bus information system
Smart Card	Touch & Go, Pre-paid and post-paid card
Median Bus Lanes	Bus Rapid Transit (BRT)
Facility Upgrade	Quality buses, CNG buses, Transfer centers, Bus shelters

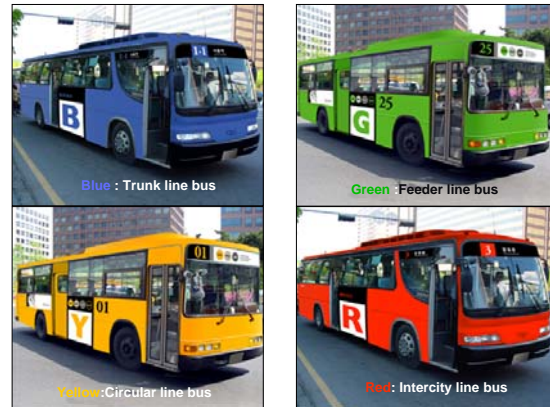
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## BUS ROUTES



More hierarchical system of trunk, feeder, circular, and intercity bus lines

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## NEW BUS NUMBERING SYSTEM (8 ZONES)



Easier to identify the origin and destination for bus users

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## BUS COLORS AND NUMBERS

### Trunk line (Blue bus)

1 0 1

Starting from North-East area, arriving at Downtown trunk line number 1

### Feeder line (Green bus)

1 0 1 2

Starting from North-East area, arriving at Downtown feeder line number 12

### Wide area line (Red bus)

9 1 1 2

Starting from Ujongbu, arriving at Downtown wide area line number 1

### Circular line (Yellow bus)

4 1

Circular line number 1 in Gangnam

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## BUS FARES

### Bus

- Flat fare system  
Free transfer between buses  
within 30 minutes

### Subway

- Distance based system

### Bus & Subway

- Discount transfer  
between bus and subway

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## SEMI-PUBLIC OPERATION

- ✓ Route tendering system
- ✓ Joint management of bus revenues
- ✓ Evaluation of bus service performance

- Secure publicity
- Encourage greater utility of on the part of private bus firms
- Spur service competition between bus firms

✓ Public Sector  
➤ Publicity

✓ Private Sector  
➤ Business Management

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## SEMI-PUBLIC OPERATION: REVENUES

- ✓ Revenues based on the number of passengers per bus traveled

- ✓ Revenues based on bus-kilometers of service
- ✓ Reimbursement system

- ✓ If case of a deficit, SMG provides a financial subsidy

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## BUS MANAGEMENT SYSTEM

### BMS Center

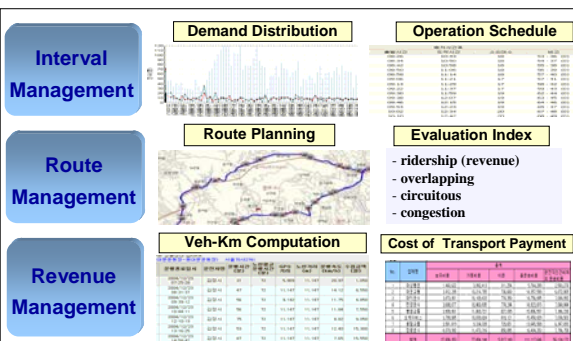
- Bus information management
- Bus operation data analysis
- Dynamic & real time information to the public

### Smart Card (T-Money, Credit Card)

- Transparent revenue management
- Joint management of revenues
- Added service such as mileage

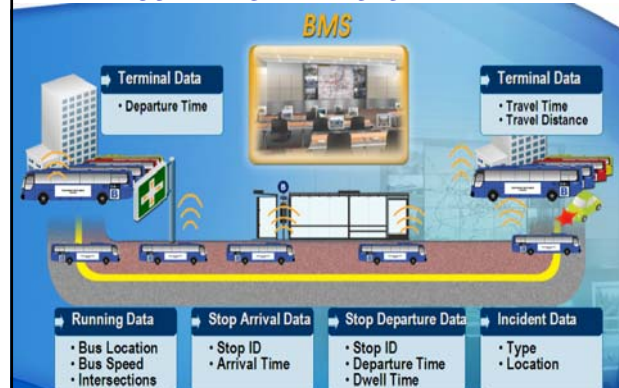
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## BUS OPERATION MANAGEMENT



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## BUS MANAGEMENT SYSTEM: DATA



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## BMS TO SEOUL TOPIS



## SMART CARD

### Seamless fare collection

- ✓ Benefits from transferring between buses & between buses and the subway
- ✓ Convenience to the passengers
- ✓ Reduction in their need to pay cash
- ✓ Bus firms settle their accounts more quickly



- Pre-paid (T-money)
- Post-paid (Credit card)
- ❖ Card users are over 90%



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## T- MONEY CARD DATA



## MEDIAN BUS LANES

- ✓ A length of 183km of curbside bus lanes was not functioned well
- ✓ Median bus lanes (MBL) with 68km long in 7 lines have made bus travel speeds
- ✓ A length of additional 192km was planned



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## MEDIAN BUS LANES



A length of additional 192km was planned.

- More passenger ridership
- Travel speed up for both buses and cars
- Less travel time variation so higher punctuality

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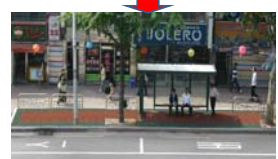
## FACILITY UPGRADE

### ✓ Transfer terminals

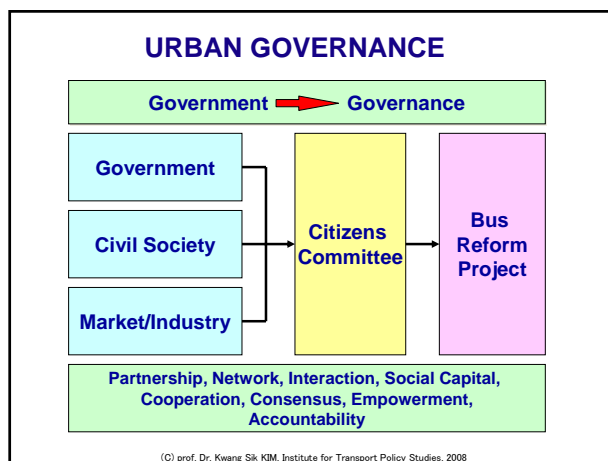
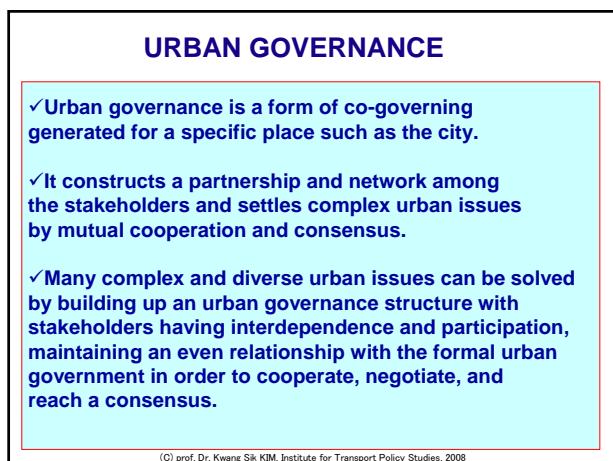
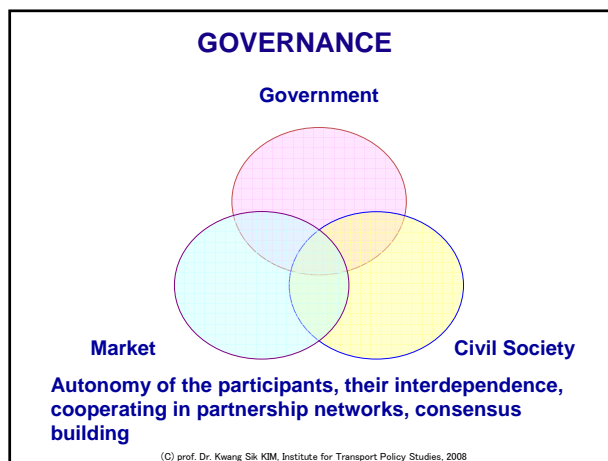
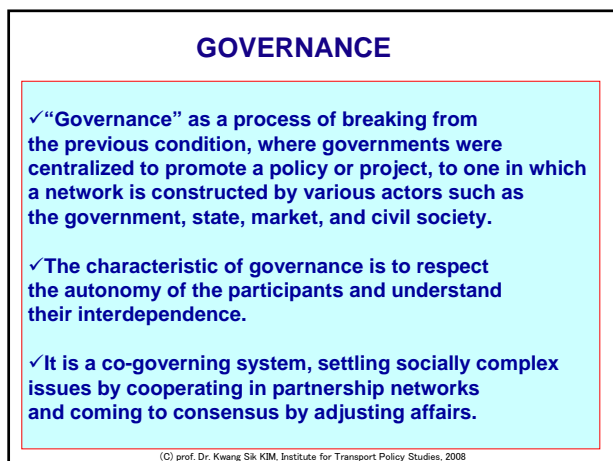
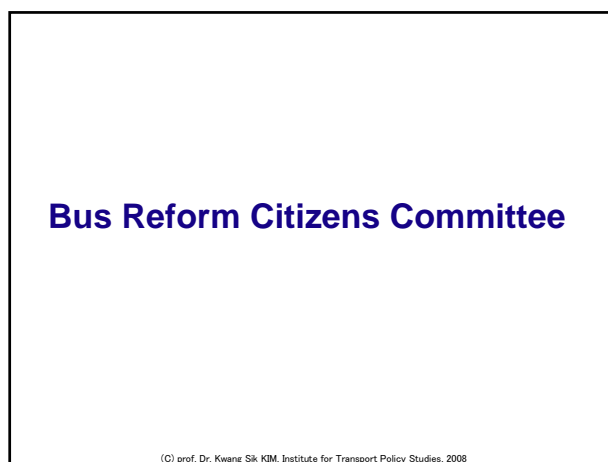


Cheongryangni multi-modal transfer terminal between the bus, rail, subway, and taxi

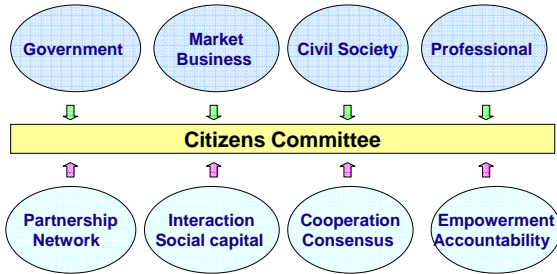
### ✓ Bus shelters



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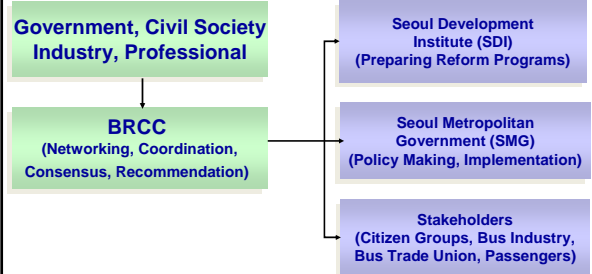


## URBAN GOVERNANCE



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## URBAN GOVERNANCE



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## BUS REFORM CITIZENS COMMITTEE

### Appointment

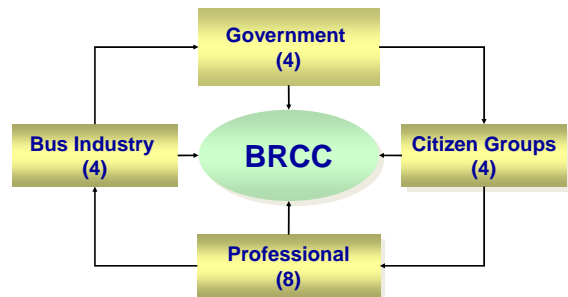
- 20 committee members were appointed by the mayor in August 2006
- The committee was dismantled in November 2006 when its mission was fulfilled

### Mission

- An ad-hoc or special committee in the form of urban governance
- A mission-oriented temporal organization to review and affect the SMG's proposal on bus reform

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## BRCC: COMMITTEE MEMBERS



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## BRCC: COMMITTEE MEMBERS

Seoul Metropolitan Government	Seoul Metropolitan Government	1
	Seoul Police Agency	1
	Seoul Metropolitan Council	2
Citizen Groups	Network for Green Transport	1
	YMCA	1
	Green Consumers Network in Korea	1
	Citizens' Coalition for Economic Justice	1
Bus Industry	Seoul Bus Transport Association	2
	Seoul Community Bus Transport Association	1
	Seoul Bus Transport Trade Union	1
Professional	Transport Professional	6
	Accountant	1
	Lawyer	1

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## BRCC: THE ROLE OF STAKEHOLDERS

### SMG

- ✓The SMG drew up reform plans and executed transportation policies.
- ✓The councilors checked subsidies and finance for the bus reform.
- ✓The police were concerned about the traffic flow following the reform.
- ✓The Seoul Development Institute (SDI) studied and prepared the bus reform alternatives.

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## BRCC: THE ROLE OF STAKEHOLDERS

### Bus Operators

- ✓ Representatives from bus transport associations were keen to provide input about changes in routes, revenues, the fare system.
- ✓ The trade union representative was concerned about possible reduction in the drivers' welfare system.

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## BRCC: THE ROLE OF STAKEHOLDERS

### Civil Society

- ✓ The representatives from civil groups proposed drastic bus reform programs for citizens and passengers.

### Professional

- ✓ The professionals of the transport planner, engineer, economist, accountant, lawyer reviewed and studied the programs based on their knowledge and information and suggested alternatives for each program.

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## BRCC: ACTIVITIES

### Meetings

- ✓ From the first meeting on August 26, 2003 till the start of implementation on July 1, 2004, 28 meetings were held, and after the reform till the end of December 2004.
- ✓ The meetings were held regularly about twice a month and averaged 15 members in attendance.

### Functions

- ✓ Discuss the bus reform agendas and issues
- ✓ Review and suggest the bus reform plans and programs
- ✓ Make decision on some reform programs
- ✓ Involve conflict resolutions among the stakeholders

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## BRCC: REFORM PROGRAMS REVIEWED

- ☐ Bus reform agenda setting
- ☐ Draft plans for the bus reform
- ☐ Median bus lanes
- ☐ Curbside bus lanes
- ☐ Bus fare system
- ☐ Articulated buses/low floor buses/CNG buses
- ☐ Bus route reorganization
- ☐ Bus operating costs
- ☐ Bus shelters and transfer terminals
- ☐ Level of bus service quality

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## BRCC: REFORM PROGRAMS REVIEWED

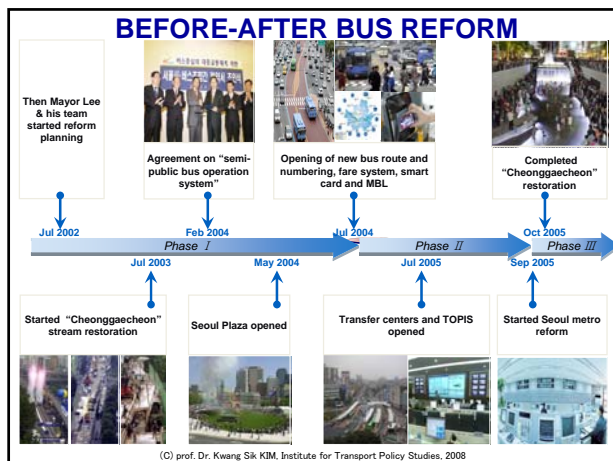
- ☐ New bus card system problems
- ☐ Welfare of bus drivers
- ☐ Public relations related to bus reform
- ☐ The community bus operating system
- ☐ Joint management of revenues
- ☐ Cash fare revenues
- ☐ Bus advertisement revenues
- ☐ Bus service standards
- ☐ Bus users satisfaction monitoring

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## BRCC: CONFLICT MANAGEMENT

- ✓ In case of severe conflict among the members, they were encouraged to discuss the matter and resubmit the controversial agendas again at the next meeting.
- ✓ Through a series of formal and informal meetings, the BRCC reviewed the hot issues and resolved the conflicts, if any, and moved to the next steps.
- ✓ During this process, public hearings, presentations, workshops, and overseas trips were conducted.

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## A Brief Before-After Comparison

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### BUS OPERATING COMPANY & ROUTE

	July 2003	July 2004	July 2005	Dec 2006
Bus Companies	57	69	69	68
Number of Bus Routes	365	457	413	397
Bus Routes/Company	6.5	6.6	6.0	5.8
Length/Bus Route (Km)	20.5	17.0	17.0	17.6
Operating Buses	7,311	7,561	7,584	7,469
Operating Buses/Route	19.9	16.6	18.4	18.8
Average Bus-Km Traveled/Day	291	269	259	252

The bus route length was shortened due to the reorganization of circuitous or overlapping routes.

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### PASSENGERS

	Jul-Dec 2003	Jul-Dec 2004	Jul-Dec 2005	Jan-Jun 2006
Average daily bus passengers (1,000 trips)	4,869	5,170	5,716	5,709
Average daily subway passengers (1,000 trips)	4,438	4,539	4,516	4,635
Average daily bus and subway passengers (1,000 trips)	9,307	9,709	10,232	10,344

The average number of bus passengers increased by 17.3% due to the free transfer system and demand responsive bus route changes.

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### COST & REVENUES

	Jul-Dec 2003	Jul-Dec 2004	Jan-Dec 2005	Jan-Dec 2006
Average daily travel costs/bus	-	455,000 (\$495)	479,000 (\$520)	536,000 (\$580)
Average daily travel revenues/bus	-	358,000 (\$390)	373,000 (\$405)	428,000 (\$470)
Average daily travel deficits/bus	-	97,000 (\$105)	106,000 (\$115)	108,000 (\$100)
Average daily fare box revenues/bus	335,316	304,932 (\$300)	367,010 (\$400)	340,957 (\$370)

Although passenger numbers increased after the reform, the fare-box revenue decreased because the take-up volume of free transit was large.

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### CITIZEN SATISFACTION SURVEY

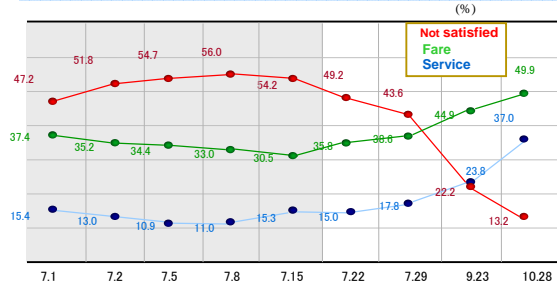
		Jul-Dec 2003	Jul-Dec 2004	Jan-Jun 2005	Jan-Jun 2006
Citizen satisfaction (%)	Total (%)	-	45.6	69.0	84.1
	Bus (%)	-	-	58.9	85.5
	Subway(%)	-	-	79.1	90.2
Citizen satisfaction (10 scale)	Bus + subway	5.15	5.30	5.55	5.62
	Bus	4.75	4.85	5.64	5.68
	Subway	5.99	6.08	6.29	6.31
	Taxi	4.72	4.96	4.72	4.87

Satisfaction with the bus and subway service increased markedly in 2005, when the reform had stabilized.

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## CITIZEN SATISFACTION SURVEY

Citizens satisfaction with the bus reform has risen over time in terms of fare and service provision.



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## Performance Evaluation & Lessons

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## PARTNERSHIP & NETWORKING

- ✓BRCC was the connector of communicative networks for various stakeholders to reflect their interests through partnership and networking.
- ✓The Committee conducted itself as a partnership by discussing, arbitrating, and conferring over the agendas to achieve the goal of bus reform.

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## INTERACTION & SOCIAL CAPITAL

- ✓Through their interactions during the formal and informal meetings, BRCC members came to understand each other's values, preferences, interests, and ideas.
- ✓In the event of excessive conflicts and arguments, both the citizen and professional groups in BRCC played the role of arbiter by embossing the points of issue at formal meetings.
- ✓Through informal meetings, the Committee tried to create reliable relationships to form social capital or trust among the members.

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## COOPERATION & CONSENSUS

- ✓Throughout the bus reform process, many conflicts occurred among the committee members.
- ✓Members from SMG and the bus operators had acute confrontations about the bus route reorganizations, integrated fare system of bus and subway, level of bus operating costs, new card system, and joint management of revenues.
- ✓When the conflicts were not settled, sub-committees consisting of members were organized and persuaded to bargain and drew out a consensus.

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## EMPOWERMENT & ACCOUNTABILITY

- ✓The Committee did not have any legal authority, but did have the authority to determine and operate independently in terms of meeting agendas and final decisions.
- ✓The meeting process was used first to get explanations of the agendas for bus system reform from the related departments.
- ✓For agendas which were important and sensitive – politically or financially -- to the SMG, the BRCC submitted to SMG because ultimate empowerment and accountability for the reform still remains in the hands of the SMG.

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## LESSONS

- ✓ In spite of the trials and errors, the BRCC has been a leader in obtaining positive evaluations by bus users.
- ✓ The cooperation and consensus by participants and stakeholders through 40 formal and informal meetings has contributed to making a good agenda for the reform.
- ✓ The Committee has promptly dealt with many complaints and dissatisfactions from bus users at the beginning of implementation of the new system change.

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## LESSONS

- ✓ But weak points of the Committee were revealed during the implementation stage.
- ✓ It took a lot of time to settle conflicts between the Seoul Metropolitan Government and the bus companies over the bus routes and revenue system changes in particular.
- ✓ These were cases of increases in the transaction costs due to different interests and conflicts between stakeholders.

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**Thank you for your kind attention**  
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