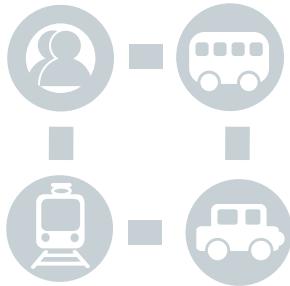


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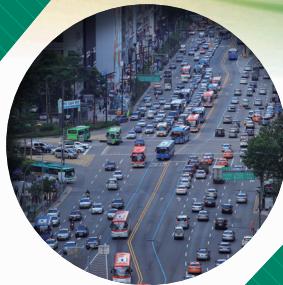


**KOREA'S BEST PRACTICES  
IN THE TRANSPORT SECTOR**



# Conflict Management and Governance in the Transport Sector in Korea

by KIM Kwang Sik, KIM Gyeng Chul, and SONG Seok-Hwi



**Korea's Best Practices in the Transport Sector**

**Conflict Management and Governance  
in the Transport Sector in Korea**

**KOTI Knowledge Sharing Report: Korea's Best Practices in the Transport Sector**

**Issue 16: Conflict Management and Governance in the Transport Sector in Korea**

Authors \_KIM Kwang Sik, KIM Gyeng Chul, and SONG Seok-Hwi

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Over the past 35 years, he has been involved in numerous research projects in the area of transportation planning and transportation policy analysis. He has authored and co-authored several books including Bus System Reform in Korea and has published many articles in the fields of transportation studies and urban planning.

He has been invited to be a member of various government committees on the national transportation policy review, national urban planning review, provincial transportation planning policy, municipal planning review, traffic impact assessment, low carbon green growth, and road safety. Currently he is Chair of Traffic Impact Assessment Committee as well as Regulations Reform Committee of Ministry of Land, Infrastructure and Transport. He is also a member of the National Transportation Committee and the Green Growth Committee of the Prime Minister Office.



### KIM Gyeng Chul

Dr. KIM Gyeng Chul is the current President of the Korea Transport Institute (KOTI). His position is regarded as a Vice Minister Class of the Korean National Government. KOTI is a government-invested research institute under the Prime Minister's Office and is committed to transport-related policy research and consultation with approximately 300 employees. KOTI has been run under his leadership since 2011. As he is the sitting President of KOTI, Dr. Kim is on leave from KAIST (Korea Advanced Institute of Science and Technology), where he teaches Green Transport Policy in the Graduate School

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His career in transport policies and management spans nearly two decades with specific interest in various modes of public transport. While at the Seoul Development Institute (SDI), he conducted key research for the Seoul bus reform and was then appointed as a Director General of T/F team of Seoul Metropolitan Government for four years to implement said research. The reform was successfully conducted and demonstrated how a large and rapidly-growing city like Seoul could increase ridership and significantly relieve congestion in a short period of time by constructing ICT based public transport infrastructure. Additionally, he served as the CEO of Veolia Transport Korea, the operator of Seoul Subway Line 9, from 2009 to early 2011. He serves as a member of the Transport Committee of Seoul Metropolitan Government as well as the Committee for Rail Division of the Board of Audit and Inspection. Additionally, Dr. Kim currently heads the Urban Transport Committee of Korea Transport Research Society.

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## • Contents

- Authors • 4
- List of Tables • 10
- List of Figures • 11
- Preface • 13

## **PART I Conflict Management and Governance Models for Sustainable Transport**

### **CHAPTER 1**

#### Sustainable Urban Transport and Improving the Quality of Life

- 1. Introduction • 17
- 2. Urban Transport and Sustainable Development • 19
- 3. Foreign Policies for Sustainable Urban Transport • 23
- 4. Main Issues in the Process of Urban Transport Policymaking • 28
- 5. Vision and Promotion Strategy of Sustainable Urban Transport Policies • 34
- 6. Conclusion • 61

## **CHAPTER 2**

### **Conflict Management and Governance Models**

- 1. Introduction • 68**
- 2. Theories of Conflict Management and of Governance • 71**
- 3. Current Situation and Problems of the Nationwide Public Transport Operation and Necessity of Reform for the Public Transport Operation System • 83**
- 4. Background of the Reform of the Public Transport System and Establishment of the Role of Structure of the Committee on Bus Reform: A Seoul Case Study • 90**
- 5. Governance Model for Building an Integrated System of Nationwide Public Transport • 100**
- 6. Conclusions and Suggestions • 108**

## **CHAPTER 3**

### **Conflict Factors between the Central and Local Governments for Transport Facilities**

- 1. Introduction • 113**
- 2. Conflict Factors Due to the Supply and Management of Transport Facilities • 114**
- 3. Some Measures to Strengthen a Cooperation System of the Supply and Operation of Transport Facilities • 122**
- 4. Policy Proposals and Conclusions • 128**

## **PART II Stories of the Seoul Bus Reform and Its Conflict Management**

### **CHAPTER 1**

#### Introduction: Public Opinion on Seoul City Buses

1. Seoul City Buses Before July 1, 2004 • 134
2. Seoul City Buses After July 1, 2004 • 135

### **CHAPTER 2**

#### Leading to the Seoul Bus Reform

1. External Factors that Made the Reform Inevitable • 139
2. Internal Factors that Made the Reform Inevitable • 142
3. Net Reform Benefits • 145
4. Related Overseas Case Studies • 147
5. Promoting the Seoul Bus Reform • 154
6. July 1 2004 • 159

### **CHAPTER 3**

#### Conflict Studies

1. Understanding Conflicts • 177
2. Conflict Management • 186

### **CHAPTER 4**

#### Seoul Bus Reform Stories and Conflicts

1. Introduction • 200
2. Approaching Conflict Management • 201

3. Conflict Cases in the Bus Reform • 202
4. Efforts to Reorganize Seoul's Buses • 203
5. Conflicts in the 2004 Seoul Bus Reform • 212

## CHAPTER 5

### A New Model of Conflict Management

1. Factor Analysis of Conflict Management in the Reform • 230
2. Social-environmental Factors that Affected the Bus Reform Positively • 235
3. Managing the Seoul Bus Reform Conflicts • 240
4. The Seoul Bus Reform vs. Cheonggye Stream Restoration Project • 250
5. A New Model of Conflict Management • 258

## CHAPTER 6

### How Conflict Management from the Seoul Bus Reform Impacts the Seoul Metropolitan Government

1. Implications • 266
2. Conflict Cases Expected in the Future • 268

Appendix • 278

## • List of Tables

- Table 1.1** Principles of new urbanism • 24
- Table 1.2** Visions and goal values for sustainable urban transport main contents • 35
- Table 1.3** Strategies for promoting transport sectors • 36
- Table 1.4** Kinds of traffic calming measures • 39
- Table 1.5** New transit modes in selected cities • 41
- Table 1.6** Laws administrated by the Ministry of Land, Infrastructure and Transport • 43
- Table 1.7** Offices of the Ministry of Land, Infrastructure and Transport • 46
- Table 1.8** Arnstein's types of community participation • 58
- Table 1.9** Jackson's stages for community participation • 59
- Table 1.10** Styles of conflict management • 75
- Table 1.11** Conflict management cases • 76
- Table 1.12** A comparison of collaborative governance and network governance • 82
- Table 1.13** Goldsmith and Kettle's 8 core competencies of collaborative governance • 82
- 
- Table 2.1** Increasing size trend of passenger cars in Seoul • 140
- Table 2.2** Problems of the existing bus transport system • 142
- Table 2.3** Seoul bus reform agreement • 156
- Table 2.4** Joint Transport Agreement of the Seoul Bus Transport Association • 158
- Table 2.5** History of Seoul bus routes reorganization • 161
- Table 2.6** Reorganization history of existing Seoul bus routes • 162
- Table 2.7** Color classification of Seoul buses • 162
- Table 2.8** Numbering system of the Seoul bus system • 163
- Table 2.9** Conflict cases due to public policy • 184
- Table 2.10** A comparison of conflict management techniques • 194
- Table 2.11** Comparison of conflict management in the Seoul bus reform and the Cheonggye Stream Restoration Project • 257
- Table 2.12** Interview questions on conflict management • 278

## • List of Figures

- Figure 1.1** A sustainable urban transport system • 23
- Figure 1.2** Policymaking process • 29
- Figure 1.3** Visions and promotion strategy for sustainable urban transport • 36
- Figure 1.4** Members of Bus Reform Resident Committee in Seoul • 49
- Figure 1.5** Diagram for flow of the study • 70
- Figure 1.6** Thomas Conflict Management Mode • 74
- Figure 1.7** Axis of avoiding and competing style generating conflicts • 74
- Figure 1.8** Types of network governance • 81
- Figure 1.9** Participants of the bus reform committee • 96
- Figure 1.10** Decision-making process of the bus system reform proposal • 98
- Figure 1.11** Nationwide Intercity Bus Reform Committee • 107
- Figure 1.12** The roles between actors for building an integrated system of intercity buses  
• 107
- 
- Figure 2.1** Diesel engine bus first made in 1968 • 136
- Figure 2.2** Changes in the average travel speed of Seoul buses • 143
- Figure 2.3** Average travel speed of passenger cars and buses in 2002 • 143
- Figure 2.4** Bus information system in overseas bus lanes • 148
- Figure 2.5** Bus information system equipment installed in the front of a bus • 148
- Figure 2.6** BRT stations with horizontal entrances/exits and screen doors • 148
- Figure 2.7** BRT station fare gates • 148
- Figure 2.8** BRT stations • 148
- Figure 2.9** Cylindrical tube bus station in Curitiba, Brazil • 151
- Figure 2.10** Articulated bus in Curitiba, Brazil • 151
- Figure 2.11** BRT of Bogotá, Columbia • 152
- Figure 2.12** Transmilenio BRT of Bogotá, Columbia • 152
- Figure 2.13** BRT Central Control Office of Bogotá, Columbia • 152
- Figure 2.14** Overseas articulated buses • 153

- Figure 2.15** Overseas advanced bus transport systems with median exclusive bus lanes • 153
- Figure 2.16** Seoul and the Seoul Bus Transport Association signed statements on the representation of participating bus companies • 156
- Figure 2.17** Color classification of Seoul buses • 162
- Figure 2.18** Seoul districts classification map • 163
- Figure 2.19** Seoul bus signs • 164
- Figure 2.20** Seoul porte-cochère • 164
- Figure 2.21** Articulated bus in Seoul (front) • 165
- Figure 2.22** Articulated bus in Seoul (side) • 165
- Figure 2.23** Disabled disembarking from an articulated bus in Seoul • 165
- Figure 2.24** Median exclusive bus lane in Seoul (a) • 166
- Figure 2.25** Median exclusive bus lane system (b) • 167
- Figure 2.26** Passenger waiting areas of a median exclusive bus lane • 167
- Figure 2.27** BRT planning for Seoul and Gyeonggi Province by the Ministry of Land, Infrastructure and Transport • 168
- Figure 2.28** BRT transfer center for Seoul and Gyeonggi Province by the Ministry of Land, Infrastructure and Transport • 169
- Figure 2.29** Signing ceremony for the Seoul New Transport Card Project • 171
- Figure 2.30** Seoul bus cards produced in various forms • 172
- Figure 2.31** Bus card scanner attached to Seoul buses • 172
- Figure 2.32** Bus Management Department • 172
- Figure 2.33** Bus arrival information board in a bus stop in Seoul • 173
- Figure 2.34** City buses made in 1971 (left) and in 1974 (right) • 174
- Figure 2.35** Dual concern theory and five conflict management strategies • 196
- Figure 2.36** Articulated bus in 1980 • 198
- Figure 2.37** A model for analysis of the Seoul bus reform related conflicts • 212
- Figure 2.38** Stakeholders of the Seoul bus reform • 214
- Figure 2.39** A 1994 luxury seat city bus by Hyundai Automobile • 228
- Figure 2.40** Possibility for conflicts under new model for public conflict management • 259
- Figure 2.41** Four types of intercity buses newly organized in 2005 • 264

## • Preface

Korea has achieved phenomenal growth over the past 40 years based on its consistent construction of transport infrastructure such as roads, railways, airports and ports. The nation kept expanding the transport infrastructure while implementing its Five-Year Economic Development Plans. It even introduced a special account designed to facilitate the installation and maintenance of transport facilities. Such a development scheme, which has made it possible for Korea to attain the status of a developed country, is now being closely watched by the world.

Korea has turned itself into an aid donor after being a recipient of international aid until the 1990s. This has not only promoted Koreans' self-esteem but enhanced the nation's image in the global community, particularly among developing countries. Korea is now providing aid to countries in Africa, the Middle East and South America as well as in Asia. The scope of support is also expanding to cover economic development planning and various other areas such as new town construction, infrastructure expansion and policy consultation.

Recently, numerous developing countries are showing a keen interest in the development of transportation in Korea. Equipped with the world's highest level of information and communications technology, Korea is building up its intelligent transport systems (ITS). It has also reformed its public transport system featuring a bus rapid transit (BRT), convenient transfer scheme, and transit cards that provide nationwide compatibility. Other prominent achievements include the development of domestic technologies for high-speed railway systems and the operation of a world renowned international airport. As such, Korea is considered to be a role model by a growing number of developing countries.

However, there had been various difficulties including conflicts between the central and local government and policies and people, and institutional conflicts for realizing sustainable transportation until such developments was accomplished.

Conflict management is enormously important in that not only does it help conflicts to be resolved but also it enables them to be used as momentum. Its importance will grow considering the circumstances that conflicts has been deepened and expanded throughout our society.

In this sense, this book is designed to introduce the conflict management and governance in transportation of Korea. This book represents our determination to share Korea's precious experience and know-how with numerous countries, thereby laying the foundation for creating new values in the global era.

KIM Gyeng Chul  
President  
The Korea Transport Institute

## PART I



# Conflict Management and Governance Models for Sustainable Transport



A series of five curved arrows in varying shades of green and yellow fan out from the bottom left towards the center of the page, creating a dynamic visual element.

KIM Kwang Sik

Professor Emeritus, Sungkyunkwan University

KIM Gyeng Chul

President, The Korea Transport Institute



# Sustainable Urban Transport and Improving the Quality of Life



# 01

## Introduction

---

Korea is the 15<sup>th</sup> largest country in the world in terms of gross domestic product (GDP) and the 9<sup>th</sup> largest in terms of trade volume. It is also among the top 5 producers of semiconductors, automobiles, large vessels, and home appliances. However, the urban environment, living space, and infrastructure, which determine the quality of day-to-day life, are far below the levels of other developed countries. A vivid example is in underdeveloped traffic conditions present in Korea compared to the fellow 30 OECD countries, as automobile congestion, pollution, and accidents demonstrate. Now, it is time to build a ground breaking urban transport environment with conditions that are commensurate with the economic scale and trade volume of Korea. As part of these efforts, it is urgently required to promote “sustainable urban transport and a general improving of the quality of life.”

The work on sustainable urban transport comes down to seeking ways to improve the quality of life by resolutely moving away from existing approaches of urban development and pursuing “cities you want to live in and streets you want to walk on.” This is in line with the changes in the existing philosophy and strategy of urban planning and design based on new urbanism and smart growth in the U.S. and changes in the urban Transport

system are based on new realism and the new deal for transport in the UK. Their philosophies and strategies request innovative thinking and action in order to pursue sustainable development and enhance the quality of life.

The primary purpose of this chapter is to seek visions and promotion strategies of sustainable urban transport for improving the quality of life. To do this, we first establish the concept of sustainable urban transport and pull together reform agendas to pursue this concept. Secondly, we explain the core discourses of sustainable urban transport policies from foreign countries such as the U.S. and the UK. Thirdly, we will try to understand the contexts of the promoting strategies for sustainable urban transport by discussing the issues to be considered in urban transport policies and their planning processes. Lastly, we set a vision for sustainable urban transport and present a strategy to promote it. In consideration of domestic and foreign cases we will set sustainability, efficiency, fairness, integrity, safety and participation as visions. For promotion strategies the improvement of transport facilities and means (travel mode), reform of the transport-related legal system, strengthening of the main subjects of transport-related promotion, rationalization of resource allocation of transport investment, integration of transport-land use planning, improving public awareness, and low carbon green growth are considered.

The research methods consist in surveying domestic and foreign articles and reports relating to policies and programs on urban transport. While reviewing such articles and reports we applied the partial approach method of sociological institutionalism (Vigar, 2002) to subtract the discourses of urban transport policy and the process of change in such discourse.

In particular we seek to acquire visions and promote strategies for urban transport by examining new urbanism and smart growth policies from the United States, the new deal for transport and new realism policies in the United Kingdom, and the measures of the Ministry of Land, Infrastructure, Transport and Tourism of Japan following its transport proposals which show the process of moving away from road-centered thinking, which placed priority on private transport, to discourses focused on public and green transport.

# 02

## Urban Transport and Sustainable Development

### Sustainable Development

The concept of sustainable urban transport is derived from that of sustainable development. The concept of sustainable development was first introduced in the Brundtland Report in 1987, which refers to the development satisfying needs of the present generation, as well as of those of the future generation. In other words, it is being positioned as the new paradigm, integrating economic, social and environmental policies, while taking both development and conservation as well as future generations and the current generation into consideration. The Rio Declaration was adopted at the United Nations Conference on Environment and Development, which was held in 1992 at Rio de Janeiro, where world leaders gathered together to realize sustainable development.

Each country adopted Agenda 21 as a detailed action plan. According to this agenda the participating states were supposed to constitute a national commission on sustainable development, and were to establish and promote a sustainable development strategy on a national level. Korea also has installed a Commission on Sustainable Development as a council reporting directly to the President in 2000 and established a sustainable development strategy as medium- and long-term policy issues within each policy sector of 11 fields, such as land conservation, transport systems, water resource management, energy systems, industrial development, and so on.

The Kyoto Protocol can be mentioned as an international treaty related to the practice of sustainable development. This was discussed in United Nations Conference on Environment and Development at Rio in June 1992 in order to prevent global warming. The United Nations basic convention on climate change, the Convention on Climate Change, took effect in February 1994. In 1997 government representatives of 160 countries gathered and discussed

the climate change convention. As its specific implementation measure, the climate treaty was adopted as the Kyoto Protocol, which defined the target value of greenhouse gases in developed countries. The main content of the protocol was as follows: 11 countries from Eastern Europe and 24 OECD member countries bound themselves to goals for reduction, introduced new greenhouse gas reduction methods founded on market principles, including the trade of emission certificates among pollutants, and were allowed to reach the reduction goals through joint implementation between nations.

Following the concrete content for the implementation they are expected to reduce domestic emissions of greenhouse gas to an average of 5.2% in developed countries from 2008 to 2012, compared to 1990 levels. Looking at the reduction rates of each country it is set at 8% for the EU, 7% for U.S. and 6% for Japan, Canada, and Poland. Korea is currently not included in the obligatory countries, but has prepared measures for it, due to the high possibility of the inclusion of Korea as a committing country starting in 2013, which marks the start of the second commitment period.

For reference, the detailed measures of the environmental action plan of the Ministry of Land, Infrastructure, Transport and Tourism of Japan are as follows (Korea Railroad Corporation, 2005): improvement of transport facilities and means as a prevention method of global warming in terms of the policies related to the transport sector, transport demand management, strengthening the use of public transport, operations of comprehensive green programs, strengthening cooperation between governments, businesses and society, and improving the level of public awareness and understanding. In addition, measures that are being taken into consideration include the formation of a recycling-based society, procurement of a healthy natural environment, construction of a water circulation system, and construction of a good living environment (through counter-measures against air pollution or hazardous chemicals) and the joint operation against each environmental challenge (for example, environmental observation, monitoring systems, and development of research technology). Leading by example is the Ministry of Land, Infrastructure and Transport, currently reforming its ways of

proceeding with public works or by procuring environmental goods, is also included amongst such measures.

Sustainable development has created a new concept of sustainability. This has been recognized as a fundamental social value such as freedom, justice, and democracy as one of the country's policy objectives. Sustainability is considered a significant factor in determining the quality of life in respect to the aspect of environmental protection, as well as the economic and social aspects (Camagni, et al., 1998). In other words, sustainability includes resource conservation like waste reduction and recycling, building development in harmony with the natural environment, maintenance and improvement of environment quality, economic development, the procurement of social quality, and of political participation. This sustainability is positioned as one of the visions of urban transport policy.

## Sustainable Urban Transport

Sustainable transport refers to the transport system that is able to achieve the goal of reaching a certain destination through a variety of transport means such as public transport, walking, cycling, etc. in order to reduce the adverse effects traffic has on the environment, in particular due to the use of automobiles, instead of reducing the transport demand itself (Haq, 1997: 23). In other words sustainable transport is a concept that seeks to explore the environmental, economic, and social sustainability of transport in order to pursue sustainable development (Kim and Hwang, 2003).

Figure 1.1 shows the relationship between national and international environments related to the realization of a sustainable transport and the components such as urban transport planning and urban transport policy. Urban transport policy includes participation in public administration, finances, and community activity. This requires close coordination with superstructures such as politics, economy, society, culture, legal system, and customs. Urban transport planning includes providing facilities and means

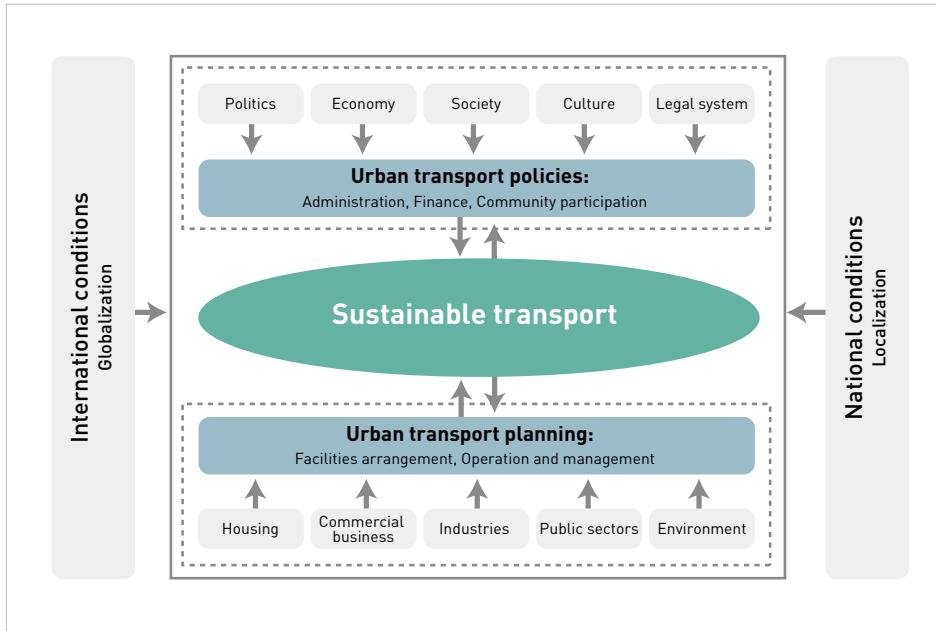
of transport as well as its operation and management .This determines the flow and passage connecting the various facilities such as housing, commerce, business, industry, and public services. The flow and passage form infrastructures, which are basic facilities to smoothen the activities and functions of the city.

## Reform Agenda for Sustainable Urban Transport

It is time for Korea's urban transport policy to move away from the allopathic and mechanical agenda-setting and subsequent promotion of such agenda concerning transport problems. This is because the lifestyles and the level of consciousness of the public and the urban structures have changed greatly. Therefore, agenda-setting and strategy development of urban transport policies must be sought which can cater to preferences, needs, and demands of the public as well as spatial conditions of cities in the era of around USD \$15,000 per capita income, while moving away from the traditional thinking of 10 or 20 years ago. To do so, we urgently need a new vision, goal, agenda-setting, and strategy development, which enable to seek innovations and changes in urban transport, while taking into account external and internal policies and planning environment surrounding the urban traffic.

It can be said that the reform agenda for achieving sustainable urban transport includes all areas related to urban travel. The primary reform agenda is related to urban transport policies and planning as can be seen in Figure 1.1. Some examples of matters of importance are as follows: (1) transport facilities and means, (2) a transport-related legal system, (3) transport-related main bodies of promotion, (4) allocation of investment resources, (5) integration of transport and land-use planning, (6) the level of public consciousness and (7) low-carbon green growth. These reform agendas can be subdivided again. For example, it is possible to find reform agendas for transport facilities in the field of roads, railways, ports, and airports as well as for transport means in areas such as cars, buses, and rail. This research will

**Figure 1.1** A sustainable urban transport system



formulate some reform agendas here within our limited range and explore their promotion strategies while considering the latest developments at home and abroad.

## 03

### Foreign Policies for Sustainable Urban Transport

#### The United States of America

The United States is pursuing new urbanism and smart growth in order to prevent urban expansion while simultaneously moving away from a car-centered travel system. In 1993 the Congress of New Urbanism (CNU) explored a new direction of urban planning theories as urban planning, urban design, architecture, and landscape areas (Deitrick and Ellis, 2004).

Core patterns of new urbanism are oriented, for example metropolitan areas have a sharp distinction between core and periphery, infill development in the inside of a city, include walk- and bike-friendly interconnected streets, mixed land uses, transit-oriented development (TOD), to the creation of high quality parks and conservation of lands, to architectural designs which expresses provincial history and features. New urbanism can be applied to all of central cities, new growth areas, and suburban areas, to emphasize diversity, walkability, are not automobile-centric, and are marked by a clear center and edge (Sander, 2002).

In addition, it ensures the diversity and dynamism and puts weight on urban planning, design restoring, and building existing urban environments so that residents are able to reach destinations on foot by configuring

**Table 1.1 Principles of new urbanism**

Principles	Contents
Walkability	Walking to houses and offices within 10 minutes, Walking-friendly street design, Pedestrian-only roads
Connectivity	Traffic balancing through gridiron streets, Comfortable walking, Hierarchical street system, High quality walking network, and pleasant walking spaces
Mixed-use and diversity	Mixed-use of housing in residential neighborhoods, commerce, and business
Mixed housing	Mixture of a variety of housing types, scales and prices
Excellent architecture & urban design	Highlighting beautiful urban landscape, Convenience, The sense of location, Humanistic architecture and urban design
Traditional residential neighborhood structure	Distinction between center and periphery, Public places and central artistic open spaces, Diverse land use and density within a 10-minute walking distance, High-density urban center and gradual decrease in density in the periphery
Increased density	Dense arrangement of building, housing, shopping center and service facilities for walking convenience, Applicable to large and small cities
Smart Transport	Inter-city and inter-regional connection with the railway network of high quality, Walking-friendly design that enable the promotion of walking as well as the use of bicycles, scooters, and inline skates
Sustainability	Minimization of environmental impacts associated with development and operation, Environmentally friendly technologies, Energy efficient, Decrease fossil fuel usage, Increase local production, More walking than driving cars
Quality of life	Creating spaces that can raise the human spirit

land use in a dense and complex manner. Therefore, cities of a completion type can be created by integrating activities that happen at homes, offices, shopping centers, entertainment facilities, schools, parks, or public facilities. In transport systems the use of trains, trams, bicycles, and foot traffic are promoted over cars. Currently, more than 500 businesses based on new urbanism are being promoted in the United States, especially in urban areas ([www.newurbanism.org](http://www.newurbanism.org)).

The principles emphasized in the new urbanism are as follows (see Table 1.1): they are walkability, connectivity, mixed-use and diversity, mixed housing, excellent architecture and urban design, traditional neighborhood structure, increased density, smart Transport, sustainability, and quality of life.

On the other hand, smart growth is a concept proposed by the American Planning Association (APA) and the Department of Housing and Urban Development (HUD) in the mid-1990s. It has been legalized by some state governments in America in order to prevent the expansion of cities (Downs, 2001; Brand, 2003). Principles of smart growth are aimed at the conservation of land, particularly farmlands which are sensitive to our environment, and the development of high density multi-use housing of which are friendly towards residents walking and using public transport.

For smart growth following goals are set for each specific interest: for land use the goal is set to preserve open space districts, for the community the goal is to promote cooperation among interested parties concerning process, method, and time of the urban development, for the social movement the goal is to provide opportunities for various housing selections in any income bracket, for transport the goal is to activate public transport, walking- and bicycle use. A variety of methods for the agreement of interested parties is being presented, since those interested parties are significant due to the need to change the existing basic urban planning, zoning and transport system (Brand, 2003).

## The United Kingdom

The United Kingdom is promoting a sustainable transport policy that breaks away from the former car-centered road traffic policy, through a new realism and the new deal for transport. In the 1980s an apparent trend in the UK was decreasing the amount of bus and rail use and simultaneously intensifying dependence on automobiles, which was owed to deregulation and privatization. As a result bus transport services in rural areas worsened and noise and air pollution have impaired the health and quality of life of urban residents. For this reason it was decided to promote a new and integrated transport policy named A New Deal for Transport (DETR, 1998).

The goals are to provide a variety of travel choices via bus and rail in order to deal with automobile users, give more priority on maintenance and management than on construction of roads, preferentially invest in public transport, strengthen rail freight transport, and build a safe and secure transport system.

The integrated transport policy that the new deal policy aims for is what is intended by the central and local governments. The goals and strategies for such sustainable transport are reflected on local transport plans (LTP) established by each local government. Its main contents are improving the quality of air, increasing transport safety, improving public transit, reducing road congestion, and so on.

Through adopted policies like collecting tolls, and parking fees as economic regulation methods, traffic congestion and air pollution are reduced. To promote such a policy, the central government revised a Planning Policy Guidance (PPG), in which it recommends local governments to move away of car-dependent urban planning (Kim, 2001).

Instead of road construction, the central government has placed emphasis on the improvement of road maintenance of the existing road networks. It set up and began operating the Strategic Rail Authority to improve the segmental railway services. For aviation a policy has been adopted that integrates aviation with other means of transport and thereby contributes to regional

development. Also, it has installed the Commission for Integrated Transport which will advise on transport-related integration policies on the level of the central government.

Meanwhile various policies for improving public transport services are being sought. Bus companies are spurring to improve the quality of their service in order to change the perception of bus transport, which was viewed as lower class mode of transport, into convenient, comfortable, clean, and reliable. The railway system seeks to improve its services through the improvement of the transfer system between its rails and other Transport means. Other fields of improvement include a simpler and clearer fare system, convenient travel cards, the strengthening of marketing, and so on. Railway operators are made responsible for the demand of passengers for a better service, and this is reflected in railway franchise renegotiations.

The United Kingdom tried to realize sustainable transport by advocating ‘new realism,’ pursuing a non-traditionalist approach for transport policies while moving away from the previous road-centered traditionalist thinking of ‘predict and provide’ (Goodwin et al., 1991, Vigar, 2002). The model of predict and provide put an emphasis on a continuous supply of transport facilities like roads to correspond to demands on car-based travel. This thinking became a predominant policy discourse of British transport policy for 40 years from the 1950s to 1990s.

The policy for the construction of highways and trunk roads among the cities and of urban express roads and main route roads in a city was a hegemonic paradigm. Especially the conservative governments in the 1980s and 1990s set car-centered road construction as a central axis of transport policy. As a result serious environmental and socio-economic problems have arisen, such as declining service quality of public transit, traffic jams due to congestion, declining accessibility of the transport disadvantaged, air pollution, noise, energy overconsumption, and so on.

The Labor Party, which came to power in 1997, was moving away from the road-focused thinking and promoted a transport policy based on new realism. Presented by Goodwin and others (1991) new realism has adapted

seven urban traffic policy agendas. They are: (1) the promotion of public transport, (2) the introduction and enlargement of traffic calming, (3) the promotion of green transport for walking and bicycles, (4) the enlargement of intelligent transport systems, (5) the collection of congestion fees, (6) the integration of transport and land use plans, and (7) the control of road capacity and the limiting increase of the same. This deserves a special mention as this prepared the moment of change to the existing urban transport policy (Vigar, 2002).

Sustainable urban transport policies and planning cases can be said to be appropriate to the urban structures and forms of the USA and the UK. Many suggestions for others exist in that they moved away from car-centered and road-focused thinking and presented and practiced new policy discourses like public transport and green transport, which are environment-friendly, energy efficient, and improve the health of urban residents.

## 04

# Main Issues in the Process of Urban Transport Policymaking

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## The Policymaking Process

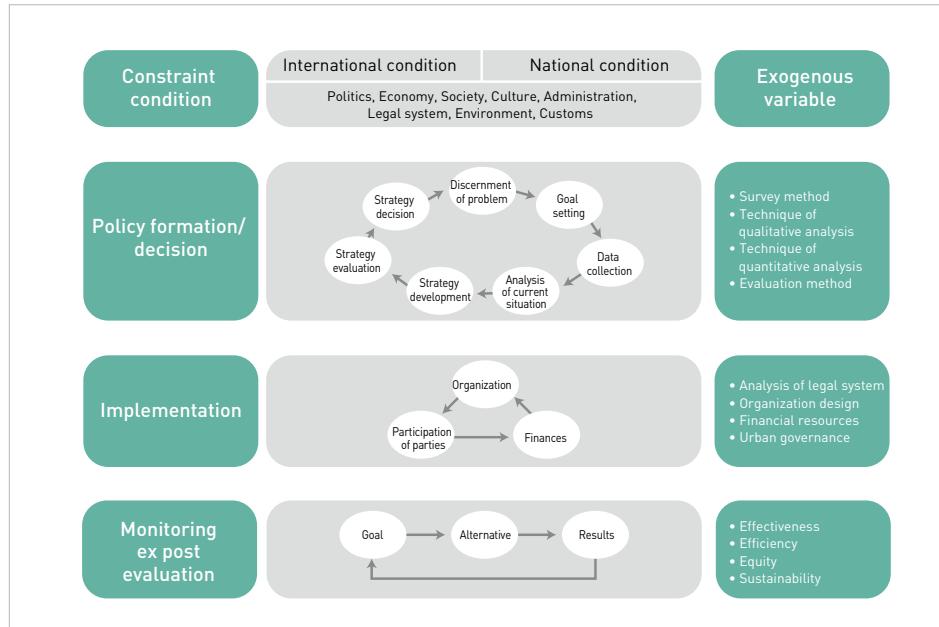
Policy is the will, decision and guidelines for sectors such as state or local governments, to achieve its vision and goals. It can be said to be a superordinate concept that includes planning, programs, and projects. Decision-making processes have already been classified in various ways by scholars. Such classification includes considering exogenous variables, such as constraint conditions, policy formation, policy analysis, policy implementation, and ex post monitoring policy evaluation as shown in Figure 1.2.

When an urban transport policy is formulated and decided upon, policy

formation and analysis must be performed in view of constraining conditions, such as circumstances at home and abroad, which exert a direct influence on urban transport. In particular the socio-economic, legal, institutional, administrative and financial factors require close analysis. The policy formation and decision-making process commonly goes through the stages of problem identification, goal setting, data collection, status quo analysis, as well as of strategy development, strategy evaluation, strategy decision, and feedback. It can be said that these processes are similar to consultation processes employed in rational planning (Faludi, 1973).

Once the optimal strategy is selected, it goes through the policy implementation stage. What are required to put such strategy into action are legal-institutional backing, promoting organs and financial resources, as well as efforts to attract participation from interested parties affected by the policy. Ex post evaluation and monitoring of output and outcome of the policy is required after the implementation ends (Jenkins, 1978: 13-25). The policy output mentioned here means the products indicated by the policy

**Figure 1.2** Policymaking process



like extended new roads' length and passengers' number, etc. The outcome of policy refers to grasping whether the policy has shown initial effects intended or not. Such outcome of policy is therefore of interest for the decision maker of the policy.

On the other hand, what are needed in the decision-making process are: qualitative and quantitative methods of analysis, methods of predicting the future, and evaluation methods of strategies and alternatives. In addition, an understanding of the political system, economy, society, and public administration is necessary for the implementation of the policy. An analysis of the legal system, a design of the future organization, and a review of budget procurement plans are also especially required. Furthermore the standard setting for result evaluation such as efficiency, effectiveness, equity, sustainability, and improvement of service quality are also required.

## Vision and Purpose

When a policy or a plan is established, visions and goals will be presented. A vision refers to an idea or a future image imagined as an ideal. A goal means a desired result that is pursued with a policy or a plan that gives more detail to a vision. Goals can be divided into basic goals and specific objectives. Problems and goals addressed in a policy or a plan are like two sides of a coin. That is, problems become objects of improvement as undesirable states, while goals become targets of a policy or a plan as desirable states (Dickey, 1983: 65-69). Visions and goals are more concretized in the form of basic goals or specific objectives taking urban characteristics into account.

What will be pointed out in regard to vision and goal-setting is conflict management among interested parties. In other words, there is much necessary participation of interested parties such as residents, civil groups, professional associations, and interested groups in the process of urban transport policy and planning. This often causes conflicts among individuals, groups, and organizations in policy processes. As a result various social

problems arise such as a delay or abolition of transport-related businesses. Top-down policy processes are dominant in the urban transport policies so far. These processes are created by external transport experts or bureaucrats and executed with the decision of policy makers. However, it has become a natural phenomenon that conflicts occur due to the improvement of the level of public awareness, the increase in participation needs, and confrontation among interested parties. Therefore, there is a need to clearly explain of whom, by whom, for whom vision and goal are sought.

It is not necessarily a negative for interested parties to have conflicts. There are also positive aspects of a conflict. For example, having a conflict has the merit of reducing the waste of time, personnel, and financial resources through support, cooperation and coordination of interested parties by magnifying issues of the extension of road routes, capacities, and costs, and the setup of road facilities, such as route stands, number of lanes, etc.

What is problematic here are hostile and destructive conflict relationships.

It is helpful to analyze and apply the theory of conflict behaviors presented by Thomas (1977, 1979, 1992) in order to manage negative conflicts. Accordingly the types are the competing type, i.e. subjects of which actively pursue their own interests at the expense of the other party, the accommodating type, i.e. subjects of which pursue the interests of the other party at the expense of their own, the avoiding type, i.e. subjects of which ignore the concerns of both sides, the collaborating type, i.e. the parties of which try to meet mutual interest as possible, and the compromising type, i.e. in which both sides make concessions to each other. Finding ways to minimize hostile or destructive conflicts through participation and compromise of the persons concerned should be sought.

## Strategies

Developing strategies can be assumed to provide means, alternatives, and course of action to realize established visions and goals. Now strategies

must be developed in a form that can respond to each goal and to ensure political, economic, social, financial, technical, environmental validity and acceptability. However no matter how wonderful a policy is, it cannot help becoming a fruitless exercise if there are no validity or feasibility studies. There is no choice but to return to inaction if there is no feasibility and validity. It can also be dangerous to assume that a successful strategy for a city can be applied to another as well. This is because cases where urban structure, population, employment, land use, financial scale, sentiments of residents, and the culture in each city may be different. Therefore, when the urban transport policy is made, what is required is the close analysis of what are the goals and strategies that will best fit the city.

## Policy Implementation

The implementation can be said to be a process of mutual interchange between goal-setting and behavior or action accomplishing the goal (Pressman and Wildavsky, 1973). The objects of implementation are policies, plans, programs, individual businesses, etc. Three basic means are needed to implement a public policy or plan. These are legal and institutional arrangements, composition of promotion organization, and the procurement of financial resources.

Sometimes a policy may be executed in a state where the legal basis is not available for it, but policy organizations and public officials would readily promote its policy and supply financial resources for it, if there was a legal and institutional basis. Thus in such cases what is most important for the implementation of a policy or plan is building a legal basis and a budget system that enable the responsible body to promote a policy with legality and validity.

However, in the light of reality, there are more than a few cases in which urban transport policies or plans have not been implemented properly. A variety of factors can be mentioned as reasons: a lack of will to act of the

policymakers, a gap between the formulation of the transport policy and the implementation process, a lack of public officials' expertise in transport due to job rotation and a lack of a coordination system among departments, such as urban planning, transport, environment and architectural departments, insufficiency in policy prioritizing, over-reliance on public-private committees for decision-making, and so on. These problems may be due to the rough operation of the internal network of a city government.

Additionally it is partly due to insufficient construct cooperation with an external network. In other words, it becomes a factor for the rough implementation of transport policy not to provide cooperation between urban (local) and central governments, between wide-area autonomous communities and primary local governments, between urban governments and residents, and between civil organizations and occupational associations. In order to address these problems we need to seek the form of urban government with a governance structure that makes city governments, civil organizations, inhabitants, and companies participate in terms of traffic-transport related issues (Healey, 1997, 1998; Kim, 2004, 2005).

## Evaluation of Results

Once policy is implemented, the monitoring and evaluation for the results is necessary. In particular it must be followed by performance measurement of each program and work. Evaluation is a work that attaches a value to the usefulness of any activity. It is not possible to determine whether intended goals are achieved until output and outcome for performed policies and programs are measured as illustrated from the sayings, “not improved if not evaluated” or “not managed if not measured” (Rossi et al., 2004). There is a tendency for a central or city government to utilize policy evaluation, since its role is to understand responsibilities and achievements of the public sector.

It is not easy to develop performance indicators and measurement values for the performance of urban transport policies. It is because various factors

such as politics, economy, society, culture, customs, and behaviors of the public have complex effects on the transport policy over the long-term. For example, when a new road is opened in a traditionally congested area social benefits quickly occur, such as reducing the passage time of the road users with increasing traffic flow, etc.

However, if induced and diverted traffic are introduced and cause traffic congestion again over time, how can the policy of new roads be evaluated? An investment decision would have been made, since benefits are judged to be larger after benefits and costs are analyzed in the processes of pre-evaluation for road planning. But the problem that can be presented is whether the enterprise could be regarded as effective when traffic congestion again arises. Therefore, the development of more sophisticated evaluation indicators and measurement values is required for result evaluation.

## 05

### **Vision and Promotion Strategy of Sustainable Urban Transport Policies**

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#### **Vision Setting**

Visions and goals of the urban Transport policy can be set in various ways depending on countries, regions, and urban environments. Not only securing accessibility and mobility can be visions or goals for sustainable urban transport but also sustainability, efficiency, equity, integrity, safety, security, and participation.

Table 1.2 shows us the vision and target value of sustainable urban transport. ‘Sustainability’ here means environment-friendliness and energy saving, ‘efficiency’ refers to the improvement of mobility such as vehicle operation speed and public transport. In addition, ‘equity’ signifies improvement on accessibility of the disadvantaged, such as the elderly, the

handicapped and lower income who do not own a car. At the same time it signifies diversification of opportunities to choose passage means. ‘Integrity’ refers to unification of interrelationships between transport and land use planning, while ‘safety’ means minimizing traffic accidents and an overall good security situation. Lastly ‘participation’ stands for the provision of opportunities for community participation from the initial planning stages.

**Table 1.2** Visions and goal values for sustainable urban transport main contents

Visions	Goal values
Sustainability	Environment-friendly transport facilities, energy saving
Efficiency	Improve speed mobility in cars and public transport
Equity	Improvement of transport accessibility for groups such as the elderly, handicapped, and those in a low-income bracket who cannot own a car, Diversification of opportunities for selection of transport mode
Integrity	Intensification of interrelationships among transport means and regions; Unification in the areas of transport, land use, environment, and health on the planning processes; Public transport-centered urban development
Safety	Minimizing causalities and property damage from traffic accidents; Improve Transport security
Participation	Expanding of opportunities for community participation from the initial planning stages

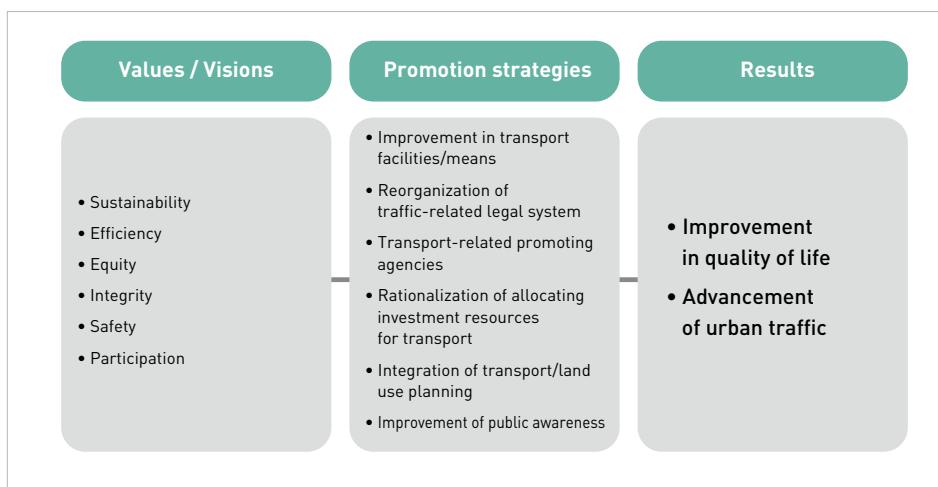
## Promotion Strategies

As above mentioned, we have pointed out a variety of elements as objectives of a reform agenda to achieve sustainable urban transport. Such reform objectives include transport facilities and means, the transport -related legal system, transport-related promotion agents, the allocation of transport investment resources, the integration of transport planning and land use planning, the level of public awareness, and the relation of low-carbon green growth with transport. The promotion strategies focusing on this reform agenda can be explored as Table 1.3 illustrates. It is almost impossible to deal with all the matters included in these areas here. Therefore, our discussions shall be centered on visions and promotion strategies deeply related to the sustainability of urban transport. This is shown in Figure 1.3.

**Table 1.3 Strategies for promoting transport sectors**

Promotion strategies	Main contents
Improvement in transport facilities and means	Introduction of traffic calming, Development of new transport means, Promotion of public and green transport
Reorganization of transport-related legal system	Enactment of urban transport-related laws and basic transport laws
Transport-related promotion agencies	Transport-related organizations including Ministry of Land, Infrastructure and Transport Strengthening of organizational competency, Formation of urban and transport governance
Rationalization of allocating investment resources for transport	Allocation of metropolitan and urban investment resources for transport, Distribution systems for optimizing investment resources of every facility, means, and sector, as well as a toll system for transport services
Integration of transport/land use planning	Application of public transport-centered urban development, Integration of sectors like transport, land use, environment, economy, and health
Improvement of public awareness	Car culture, traffic safety, citizen participation, conflict management
Low-carbon green growth and transport	Climate change, transport demand management, development of green transport techniques

**Figure 1.3 Visions and promotion strategy for sustainable urban transport**



## Transport Facilities and Means

It may be said that the strategy of improving transport facilities and means for sustainability of urban transport is to install the facilities and means that can embody and develop environment-friendly and sustainable urban transport. Here we explain traffic calming techniques and a new transport mode.

- Traffic Calming

Traffic calming means that people and cars peacefully coexist sharing roads. Its purpose is to remodel existing road installations to reduce car speeds in residential areas, utilizing them as meeting spots for residents or spaces for children to play.

Referred to as a ‘road diet’ of developed nations, various physical and non-physical techniques are applied to existing roads extending from interurban residential areas to business districts.

Since traffic calming was first proposed by Colin Buchanan in the report titled “Traffic in Towns” in 1963, it spread in popularity in Europe by De Boer, who named this co-ownership or coexistence in a residential district “Woonerf” meaning “residential yard” in 1969. The city of Delft in the Netherlands became famous for first implementing this traffic calming method.

Since then, Delft has designed and maintained all residential district roads so that residents could easily communicate with each other when walking or children could play on the street, by forcing a vehicle speed reduction by reducing the width of the streets and the number of cars a street could handle in order to restrain the car traffic.

Since the Netherlands and Germany have made guidelines and rules for the installation of shared or coexistent roads in 1976, the UK, Sweden, and Denmark put up regulations and improved existing roads in 1977, France and Japan in 1979, Israel in 1981, and Switzerland in 1982.

In America Kevin Lynch, Jane Jacobs, John B. Jackson and Donald Appleyard championed the concept that coexistent roads for people and cars are a part of physical and social spaces for a living environment and at the same time significant as a space for the movement of vehicles, the meeting of people, and the activities of residents. But it was only introduced partly in certain suburban districts.

However, since 1980 America has instituted it in a more intense manner, particularly in suburban areas due to the successful application in Europe. Now traffic calming techniques are being applied universally in almost all

cities. The early European traffic calming technique emphasized the linear aspect of roads. But recently more emphasis is made on their plane or zonal aspect. “Zone 30” is an area designed to limit the running speed of cars in resident districts to 30km per hour.

Since the 1970s Japan carried out residential zone regulations as a measure for transport management. It has contributed to restructuring of the roads for residential districts through the traffic calming by enforcing traffic safety over entire business districts in 1984. Residential roads were maintained at 1,158 locations throughout the nation of Japan in 2001.

In Korean cities speed bumps have been installed in residential areas and 30 km/h zones around schools prompting drivers to decelerate. However, as some road users and policy makers don't break from their car-centered mentality, only very limited traffic calming techniques like speed bumps are being implemented.

As shown in Table 1.4, traffic calming can be divided into physical measures and non-physical measures ([www.trafficcalming.org](http://www.trafficcalming.org)). Non-physical techniques may be said to be legal-institutional ones that decrease the running speed of cars through traffic control or regulation and the installing of signposts or road marking. For example, what belongs to non-physical measures are as follows: the regulation of speeding, the installation of stop signs, painting pedestrian crossings, and the indication of roadside parking spots. Physical techniques are for the forced reduction of vehicle operating speeds through the installation of facilities on roads in residential areas.

There are the vertical, horizontal, and divertive alignments, depending on the forms of facilities. For example, vertical alignments include speed bumps, which usually can be seen at a residential area, the installation of speeding protection zone, the forming of projecting parts that force cars to decelerate on roadways. For the horizontal alignment there are the installations of rotaries and chicanes which force a far to drive slowly due to their intentionally crooked design. For the divertive alignment there are facilities that restrict car passage itself through closing some roads by changing a 4-Legs intersection into a T-type.

**Table 1.4** Traffic calming measures

Kinds	Measures
	1. Speed enforcement 2. Radar trailers 3. Lane striping 4. Signage 5. Pavement marking legends 6. High visibility crosswalk
Non-physical measures	7. On-street parking 8. Raised pavement markers 9. Streetscaping 10. Multiway stops 11. Turn prohibitions and other restrictions 12. Gateways / Entryways 13. Colored pavement
Physical measures (Vertical)	14. Textured pavement 15. Speed hump 16. Speed bump 17. Speed tables 18. Raised crosswalks 19. Raised intersections
Physical measures (Horizontal)	20. Traffic circles 21. Roundabouts 22. Curb extensions 23. Chicanes 24. Lateral shifts 25. Neckdowns 26. Realigned intersections 27. Bulbouts 28. Two-lane chokers 29. One-lane chokers 30. Center island narrowing 31. Medians
Physical measures (Course change)	32. Street closures 33. Diagonal diverters 34. Semi-diverters

Source: [www.trafficcalming.org](http://www.trafficcalming.org)

If an emphasis was put on the sustainable transport focused on human beings and the environment, traffic calming measures need to be vigorously introduced in order to reduce the running speed of cars and the passage volume on all roads in residential areas, back roads, and residential roads. To do so, related measures and techniques must be developed to promote traffic calming, while existing laws and institutions must be serviced. While the concept of traffic calming is being applied particularly to new towns under consideration in capital areas, it must be examined from the early stage of design so that human beings, the environment and cars can coexist.

- New Transit Modes

New transit modes are the ones generally called light rail transit (LRT), that have transport capabilities between a heavy rail transit or subway and a medium scale city bus. They play a role in linking stations or stops of main urban transit operating in mesoscale or large-scale residential and commercial districts.

A classification of new transit modes is various according to rail type and mode. But they can be divided into tram, monorail, automated guide way transit (AGT), magnetic levitation, bus rapid transit (BRT), and so on. AGT is also subdivided into rubber wheels and iron wheels, and the monorail is also subdivided into straddled and overhang expression types (The Ministry of Land, Infrastructure and Transport, 2004).

New transit modes can be introduced based on a city's spatial structure and scale. Through this transit services of high quality can be provided to inhabitants. When a LRT is established in a new city, a route network of origin-destination type or circulation type can be created and operated, linking to large-scale housing complexes and central places.

However, a LRT costs about two-thirds of a subway in the investment scale like vehicle and system installation costs, construction expenses, etc. Because there are cases hurting urban scapes, such as the installation of elevated structures, there is a recent tendency in developed nations that one prefers BRTs to street cars, monorails, automatic tram cars, and linear

**Table 1.5** New transit modes in selected cities

Forms of routes	Cities	Population (ten thousand)	Areas (km <sup>2</sup> )	Route name and system	Station numbers	Route extension (km)	Forms of route	Proposed systems (development methods)
Connections and branch lines	Yokohama (Japan)	190		Seaside Line		10.8	Branch line Transport linking Yokohama naval landfill area and city	Rubber wheel AGT
	Toronto (Canada)	220		SRT		6.8	Constructed as linkages among Toronto subway routes	
	London (UK)	750		DLR	28	21.2	Linkage between Dockland redevelopment zone and London metropolitan railway network	
	Dock-land (UK)	22	66			21.3	Linkage between public Transport of urban main lines and London subways	Iron wheel AGT
	Tokyo (Japan)			Yurika-mome		16.9	Linkage between Haneda Airport and downtown Tokyo, acceptance of demands for commuting and business passage as a functional linkage between coastal sub-central area and downtown Tokyo	Rubber wheel AGT Monorails
	Bukit Panjang (Singapore)	370				7.8	Monorails The direction operation of circulation route and the operation of round-trip circulation route to Ten Mile Junction	Rubber wheel AGT
	New York (USA)			JFK AirTrain	10	13	Linkage to the N.Y. Metro through a connection between JFK Airport and Air Train Terminal, The outstanding competitive power in comparison with passenger cars and taxis, the greatest world public traffic system	Iron wheel AGT of a LIM drive method
	Shanghai - Pudong			Magnetic levitation train (Transrapid)		30	Open in January 2004, 48 billion won per km, maximum speed 430km	
	Miami (USA)	36				13.5	Running 24 hours in connection with the metro and buses in downtown area belt line	Rubber wheel AGT
	Honolulu (USA)						Introduction of BRT under consideration	
Circulation route	Hawaii (USA)						Introduction of BRT under consideration	
	Kobe (Japan)		130	Portliner		6.4	Route circulating through downtown Kobe and Port Island, a planned marine city, is currently under consideration	Rubber wheel AGT
	Sydney Darling Harbour (Australia)			Monorail		3.6	Sightseeing function rather than primary public transport	
	Naha, Okinawa (Japan)	130		Monorail		13.1	Main route public Transport linking an airport and Naha downtown, newly-developed land	

Source: The Ministry of Land, Infrastructure and Transport (2004)

motor cars. Table 1.5 is referentially a summary of present situations and characteristics for the operation of new transit modes in selected cities.

## Transport-related Legal System

- Urban Transport Laws

The Ministry of Land, Infrastructure and Transport is responsible for the administration of 264 regulations that include 78 law provisions, 89 presidential decrees and 97 departmental ordinances. Among these laws, the laws associated with the transport sector include 5 road laws, 9 logistics laws, 9 surface land transport laws, 8 railway laws, and 7 aviation laws (see Table 1.6).

These laws are being classified according to transport facilities, such as road, railway, aviation, and so on. Trucks, freight distributions, and traffic safety are within the transport distribution section and urban transport, urban railway, passenger motor vehicles in the surface land transport section.

It is true that despite the big changes in city size, structure of space, transport facility and means, transport-related science and technology, transport infrastructure investment and management, and transport economy and administration systems during the last four decades, the transport-related legal systems has not adopted to it properly. A hierarchy or a linkage system between laws and ordinances is feeble and there are some outdated laws, which are being created and revised fragmentarily according to transport-related objects and contents.

There are the Transport System Efficiency Act, the Special Act on Transportation Management for Urban Metropolitan Areas and Urban Transport Improvement Promotion Act as transport plan-related laws. These laws prescribe the plans for the currently established key national transport network, the plan for urban metropolis transport, and the plan for the urban transport maintenance.

However, it is noted that some problems exist in these laws in respects to periodical changes, contents, hierarchies, operations, and implementations

**Table 1.6 Laws administrated by the Ministry of Land, Infrastructure and Transport**

	Laws		Laws
National territorial policy (6)	<ul style="list-style-type: none"> <li>• Framework Act on National Land</li> <li>• Seoul Metropolitan Area Readjustment Planning Act</li> <li>• Act on regional balancing development and promotion of medium and small-sized enterprises</li> <li>• Special Act on Jeju Free International City</li> <li>• Industrial Sites and Development Act</li> <li>• Act on the Special Measures for New Administrative Capital in Korea</li> </ul>	Roads (5)	<ul style="list-style-type: none"> <li>• Road Act</li> <li>• Motorway Act</li> <li>• Korea Highway Corporation Act</li> <li>• Toll Road Act</li> <li>• Private Road Act</li> </ul>
Land (10)	<ul style="list-style-type: none"> <li>• Real Estate Brokerage Act</li> <li>• Act on the Special Accounts for Land Management and Balanced Regional Development</li> <li>• Korean Land Corporation Act</li> <li>• Foreign Owned Land Act</li> <li>• Real Estate Investment Company Act</li> <li>• Restitution of Development Gains Act</li> <li>• Construction and Application of National Geo-Spatial Information System Act</li> <li>• Land Acquisition and Compensation for Public Services Act</li> <li>• Act On Public Notice of Land Price and Land Evaluation</li> <li>• Land Survey Act</li> </ul>	Transport logistics (9)	<ul style="list-style-type: none"> <li>• Transport System Efficiency Act</li> <li>• Act on Special Accounts for Transport Facilities</li> <li>• Logistics Promotion Act</li> <li>• Trucking Transport Business Act</li> <li>• Promotion of Distribution Complex Development Act</li> <li>• Transport Safety Act</li> <li>• Korea Transportation Safety Authority Act</li> <li>• The Automobile Accident Compensation Security Act</li> <li>• Special Act on Transport Control of Metropolitan Area</li> </ul>
Housing (6)	<ul style="list-style-type: none"> <li>• Housing Act</li> <li>• Rental Housing Act</li> <li>• Housing Site Development Promotion Act</li> <li>• Korea National Housing Corporation Act</li> <li>• Built Environment Renewal Development Act</li> <li>• Urban and Residential Environment Improvement Act</li> </ul>	Land traffic (9)	<ul style="list-style-type: none"> <li>• Urban Transport Improvement Promotion Act</li> <li>• Environment, Transport, and Disaster Impact Assessment Act</li> <li>• Passenger Transport Service Act</li> <li>• Urban Railroad Act</li> <li>• Busan Urban Transit Authority Act</li> <li>• Automobile Management Act</li> <li>• Automobile Mortgage Act,</li> <li>• Cableway Track Act</li> <li>• Parking Lot Act</li> </ul>
City (6)	<ul style="list-style-type: none"> <li>• National Land Planning and Utilization Act</li> <li>• Urban Development Act</li> <li>• Observe Act on Special Measures for Designation and Management of Areas</li> <li>• Urban Park Act</li> <li>• Building Act</li> <li>• Architects Act</li> </ul>	Railway (8)	<ul style="list-style-type: none"> <li>• Railroad Act</li> <li>• Public Railroad Construction Promotion Act</li> <li>• High-Speed Railroad Construction Promotion Act</li> <li>• Railroad Crossings Improvement Promotion Act</li> <li>• Private Railway Shareholder Compensation Act</li> <li>• Framework Act on the Development of Railroad Industry</li> <li>• Korea Rail Network Authority Act</li> <li>• Korea Railroad Corporation Act</li> </ul>
Water resources (5)	<ul style="list-style-type: none"> <li>• River Act</li> <li>• Special Act on Expropriated Land Compensation for River Districts</li> <li>• Support for Dame Construction and Surrounding Area Act</li> <li>• Korea Water Resources Corporation Act</li> <li>• Ground water Act</li> </ul>	Aviation (7)	<ul style="list-style-type: none"> <li>• Civil Aeronautics Act</li> <li>• Air Transport Business Promotion Act</li> <li>• Aircraft Mortgage Act</li> <li>• Aviation Safety and Security Act</li> <li>• Act on the Promotion of a New Airport for Seoul Metropolitan</li> <li>• Incheon International Airport Corporation Act</li> <li>• Korea Airport Corporation Act</li> </ul>

	Laws		Laws
Construction economy (5)	<ul style="list-style-type: none"> <li>• Construction Framework Act</li> <li>• Industry Overseas Construction Promotion Act</li> <li>• Construction Machinery Management Act</li> <li>• Construction Machinery Mortgage Act</li> <li>• Aggregate Extraction Act</li> </ul>	Technical safety (2)	<ul style="list-style-type: none"> <li>• Construction Technology Management Act</li> <li>• Special Act on the Safety Control Installation</li> </ul>

of cases where these laws are shelved since they are insufficient to be reflected in a policy, weak to make distinctions, different in the planning cycle, feeble in planning consistency, the hierarchy system and division of roles not being distinct enough and not-following the procurement of funds.

- USA SAFETEA - LU Law

The chronicle of transition of American transport plan-related laws are as follows: in 1991 the Intermodal Surface Transportation Efficiency Act (ISTEA) was established, which emphasized the efficiency of transport. In 1997 the Transportation Equity Act for the 21<sup>st</sup> Century was established, which put an emphasis on equity. In 2003 the Safe Accountable Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was established, which emphasized both safety and equity. In these laws the needs and changes of the times are reflected in transport policies and are reflecting significant claims and changes in traffic policy.

- France's 1982 Transport Law and Japan's Act on the Maintenance Plan for Social Capital

France established the 1982 Transport Law and has regarded the assurance of the public's travel right and the offer of environment-friendly transport means as a basic idea of its transport plan. To realize this France has revised some transport policies and administration systems.

Japan established the Act on the Maintenance Plan for Social Overhead Capital, which specified basic ideas for the transport plan and policy, and increased directivity and democratic property of the plan by prescribing that civil participation should be encouraged from its early stage (Hwang and

Seong, 2005).

- The Enactment of Transport Law

To improve the transport sector, transport basic laws are required to accommodate the changes of times which include the assurance of sustainability, the improvement in the quality of life, the assurance of the public's right travel, the diversification of travel choice, the protection of the disadvantaged in transport, the assurance of traffic safety and the management of transport demands. It is necessary to enact laws which can develop environment-friendly transport facilities and means that provide transport services prepared for the elderly in society and that have integrated elements of transport, land use, environment, health, and wellbeing in the planning process, while securing people's basic right to travel.

What is needed to do this is to drastically reorganize existing transport-related laws in order to make the basic transport law a highest level law and to systematize the subordinate laws following it. The case for the enactment of National Land Planning and Utilization Act in 2003 will make a good reference, which modified and systematized various laws related to development planning for land, city, and farming areas that has undergone difficulties due to planless development since the middle 1990s.

### Transport-related Promotion System

- Transport-related Organizations of the Ministry of Land, Infrastructure and Transport

The ministry carried out offices- and bureaus-centered reorganization on March, 2013 (see Table 1.7). In other words, it was reorganized into a system of two offices and two bureaus, such as the Transport and Logistics Office, Civil Aviation Office, Road Bureau and Railway Bureau.

Among them Transport and Logistics Office consists of several divisions: motor vehicles policy division, motor vehicles management division, transport safety and welfare division, transport policy coordination division, urban and

**Table 1.7 Offices of the Ministry of Land, Infrastructure and Transport**

Transport and Logistics Office	Civil Aviation Office	Road Bureau	Railway Bureau
<ul style="list-style-type: none"> <li>• Motor Vehicles Policy Division</li> <li>• Motor Vehicles Management Division</li> <li>• Transport Safety and Welfare Division</li> </ul>	<b>Civil Aviation Office</b> <ul style="list-style-type: none"> <li>Aviation Policy Bureau</li> </ul> <ul style="list-style-type: none"> <li>• Aviation Policy Division</li> <li>• International Air Transport Division</li> <li>• Aviation Industry Division</li> <li>• Aviation Security Division</li> <li>• ANS Standards &amp; Oversight Division</li> </ul> <ul style="list-style-type: none"> <li>Aviation Safety Policy Bureau</li> </ul> <ul style="list-style-type: none"> <li>• Flight Standards Division</li> <li>• Aviation Safety Division</li> <li>• Airworthiness Division</li> <li>• Air Traffic Management Division</li> <li>• Aviation Licensing Division</li> </ul> <ul style="list-style-type: none"> <li>Airport and ANF Policy Bureau</li> </ul> <ul style="list-style-type: none"> <li>• Airport Policy Division</li> <li>• Air Navigation Facilities Division</li> </ul>	<b>Road Bureau</b> <ul style="list-style-type: none"> <li>• Road Policy Division</li> <li>• National Highway Planning Construction Division</li> <li>• Metropolitan Road Division</li> <li>• ITS &amp; Road Environment Division</li> </ul>	<b>Railway Bureau</b> <ul style="list-style-type: none"> <li>• Railway Policy Division</li> <li>• Railway Operation Division</li> <li>• Railway Investment and Development Division</li> <li>• Railway Construction Division</li> <li>• Metropolitan Railway Division</li> <li>• Railway Technology and Safety Division</li> </ul>
<b>Comprehensive Transport Policy Bureau</b> <ul style="list-style-type: none"> <li>• Transport Policy Coordination Division</li> <li>• Urban and Metropolitan Transport Division</li> <li>• New Transport Development Division</li> <li>• Public Transport Division</li> </ul>			
<b>Logistics Policy Division</b> <ul style="list-style-type: none"> <li>• Logistics Policy Division</li> <li>• Logistics Facility and Information Division</li> <li>• Logistics Industry Division</li> </ul>			

metropolitan transport division, new transport development division, public transport division, logistics policy division, logistics facility and information division and logistics industry division.

The Civil Aviation Office consists of several divisions: aviation policy division, international air transport division, aviation industry division, aviation security division, standards and oversight division, flight standards division, aviation safety division, airworthiness division, air traffic management division, aviation licensing division, airport policy division and air navigation facilities division.

The Road Bureau is consists of four divisions: road policy division, national highway planning construction division, metropolitan road division, ITS and road environment division.

The Railway Bureau is consists of six divisions: railway policy division, railway operation division, railway investment and development division, railway construction division, metropolitan railway division, railway

technology and safety division.

Such office reorganization is considered to be effective for the organizational innovation and performance management.

- Strengthening of Organization Competence

It is too early to evaluate whether the reorganization of the Ministry of Land, Infrastructure and Transport have brought about concrete results. The basis for intensifying capacity building of an organization and its members is necessary for the achievement of good results as a consequence of the reorganization. The capacity here means an organization, system, partnership, members, and process that are needed to form a specific agenda or plan (ODPM, 2003). As criteria for capacity evaluation six elements can be mentioned; financial resources, business methods and designs, the headcount of members and mobilization capacities of additional resources, the technical competence of members, the knowledge about change management and service improvement, and the behavior of the organization and its members.

What is especially necessary for the sustainability of the transport sector is a measure to strengthen organizational competence. The transport-related organizations of the central and local governments have many problems: lack of time and resources due to the many administrative businesses to deal with, the lack of opportunities for enhancement of professionalism due to a post circulation system, anxiety about change and innovation, lack of opportunities for business performance run in a partnership with civil society organizations and companies, lack of technology acquisition matching advances in technology and knowledge and so on.

We especially need a role sharing that correlates to capacity levels in order to solve these problems. In other words, a new organization design is needed, in which the decision-making body is responsible for strategy development and sustains the future of the organization with strong leadership, the intermediary layer performs operations and management tasks and the lower layer provides services to the public. In other words, the capacity is established through the steps of individual capacity development,

organizational capacity building and institutional capacity building (ODPM, 2003).

- Urban Governance and Transport Governance

We need also the partnership for cooperation and agreement between city governments, enterprises and civil society, and the business promotion for the network formation in order to build a sustainable urban transport system. Since the 1980s the function and role of state, market, civil society has changed greatly, while globalization, informatization and localization are progressing rapidly. In other words, whereas the function of a state or a government, that possessed the power, is reduced, the role of the market, having capital is increased and the role and the participation range of the civil society, such as non-governmental organizations (NGO) tends to expand. Owing to this tendency, new forms of relationships between state, market and civil society needs to be established, and a new government form called governance instead of government implemented (Kooiman, 1993; Peters, 1996; Rhodes, 1996; Jessop, 1997; Pierre, 1998).

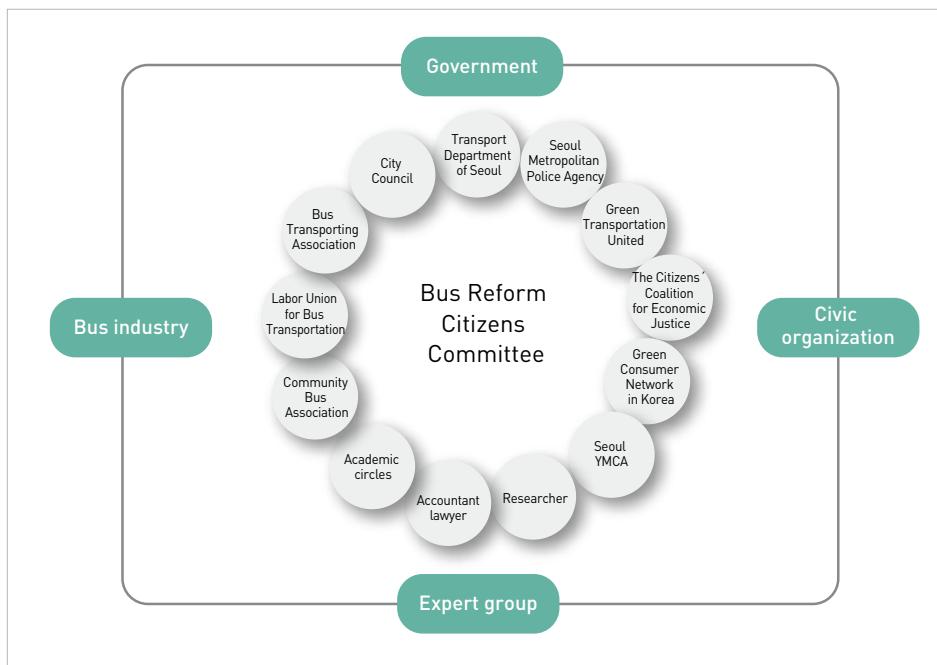
It may be also an alternative for the city government to promote the establishment and implementation of an urban transport policy, forming urban governance in the process. An urban governance as a form of joint governing that occurs at a specific location called the city can be said to be a form of adjustment, with which complex urban problems such as transport, housing, environment, and waste processing are solved through intersubjective cooperation and consensus, while interested parties like a city government, residents, enterprises, civil groups, professional associations, and experts are building a partnership and a network (Stoker, 1998).

Urban areas in which urban transport problems are apparently too complex and varied, hence is difficult today for a city government alone to solve these problems. We have reached a high point that must solve a lot of urban problems such as traffic, environment, and so on, shaping a form of city governance, in which interested parties participate with mutual trust and cooperation, negotiation and consent, having an equal relationship with the

city government (Elander and Blanc, 2001; Healey, 1997, 1998).

Therefore, taking these external circumstances in consideration, we need a measure by means of which the central and a city government create transport governance, make a transport -related plan and promote concrete tasks, while they are coping with all responsibility and getting the interested parties involved. Traffic governance can be said to be an adjustment form, in which complex transport problems are solved through reciprocal cooperation and consent by parties interested in transport planning and investment business, such as the government, residents, bus operators, civil groups, professional associations, etc. in the process of such problem solving partnerships and networks are constructed. In particular it is necessary to establish transport governance in accordance with cases because there are many cases in which the installation of transport facilities brings about acute conflicts between the central government and city governments and also between the government and its stakeholders or residents.

**Figure 1.4 Members of Bus Reform Resident Committee in Seoul**



Taking the bus reform in Seoul as an example, the Bus Reform Committee can be seen as a type of urban governance (Kim, 2005). The Committee, which consisted of 20 members, participated in substantial and active ways rather than formal and passive. The relationship among its members can be assumed to be based on a horizontal partnership and network rather than on a vertical one, as the members had authority and responsibility (see Figure 1.4). The committee can be considered as taking the role of transport governance to promote a bus reform through collective actions, mobilizing factors such as cooperation and consensus, partnership and network, mutual interchange and social capital and authorization and responsibility in the promotion process of public transport policy in Seoul.

## Allocation of Financial Resources for Traffic Investment

- Area Wide Transport Finances Share

Division of finances can be considered a conflict factor between the central and city government in supply and operation of traffic facilities. According to the Special Act on transport Management in Metropolitan Areas, for an intercity road the state bears 50% of finances, and a city government 50%, for a metro rail the state 75% and a city government 25%, and for transit parking lots the state 30% and local government 70%. One of the reasons why the form of matching funds is adapted to set up transport facilities in a large metropolitan area is that a specific city government can be induced to an investment as financial bearer for transport facilities of the relevant city, whereas the investment of the central government can be reduced.

However, the reality is that project promotion is delayed as some city governments evade their financial share of the traffic fund. Because the investment scale of a railway construction project is large, some cases of construction delay have arisen due to financial conditions of the city government and civil complaints along routes, even though the state offers a 75% financial aid of such projects.

Mass transport account is earmarked for 3% to 6%, but since of area

wide-road construction is necessary due to the continuous increase of cars and requests for a area wide metropolitan railway construction, which includes the subway project for Seoul metropolitan area and railway connection project between North and South Korea, have increased financing, it is anticipated that meeting this demand will be difficult. For example, according to the Second Five-year Capital Region Transport Plan (2004-2008), during the period 1.4 trillion won will be required to maintain intercity roads (bottle-neck roads), 4.8 trillion won to expand them, and about 32,000 billion won to expand public parking lots, which altogether amounts to 6.5 trillion won.

Among them the share of the city government reaches 700 billion won for the intercity roads, one trillion won for metro rail and 220 billion won for transit facilities. If the local government is not capable of timely payments, the construction period for area wide transport facilities is delayed resulting in difficulties promoting regional transport planning as a whole. Cases include inducing conflict potential due to financial resource allocation between the central and local government.

- Sharing of Financial Resources for Urban Transport

So far many investments in road construction connecting cities have been successful due to consistent procurement of budgets through special finance for transport facilities. But investments in intra-urban public transport, green transport, transport safety, and inter-city transport are much lower than in roads. For example, looking at investment plan in the master plan on urban transport development, new road construction and expansion costs account for more than 85% of all financial resources. It means that although the goal of urban transport planning is stated to promote “public and green transport,” its implementation provision is not prepared. This is because policymakers are focused on supplying road facilities due to their car traffic-centered thinking. So in order to achieve a sustainable development and a better quality of life, a change of thinking is required, with which more financial resources are injected into the fields and objects, in which a demand

management can be effectively made, while efforts are made to move away of the facilities supply-centered thinking and practice.

## Integration of Transport-land Use Planning

- Calthorpe's Transit Oriented Development (TOD)

The rhetoric of a metropolitan transport policy like the policy of Seoul considers the promotion of public transport and the expansion of green transport as its paradigm. It is in line with the pursue for sustainable transport and urban development and it's setting as one of the policy measures, by which it can be materialized in cities of developed countries. The urban planning and transport planning so far put an emphasis on the car-oriented development, for which policymakers seemingly "bless" cars by placing the investment priorities on the path for mobility.

In the United States in the 1920s an era of motorization began to take place and since the 1960s trends have shown cities are spreads into the suburbs. The excessive urban sprawl has caused serious socio-economic and environmental problems, such as the extension of automobile commuting distance, as well as air pollution, energy consumption, environmental destruction, damages for large-scale housing land development, and an exodus of high-income to suburb areas is associated with such extension.

Particularly the two oil crises during the 1970s exposed the vulnerability of urban expansion. In order to overcome the wasteful lifestyle of excessively using fossil fuel due to urban expansion, a variety of measures have been prepared in the interim: development of alternative energy, development of solar powered cars, electric vehicles, management of urban growth, energy-saving urban development, and transit oriented development (TOD) or transit focused development (TFD).

The concept of transit-focused urban development was defined by Calthorpe (Calthorpe, 1993). The concept came in the 1990s as one of the measures integrating transport and land usage.

This is a method for urban development, which makes people travel

between work places, shopping districts, and housing areas only by public transport, walking, and bicycles without the travel by cars by forming a commercial and employment center within a radius of 800m of subway stations, LRT, or main express bus stops and by arranging public spaces and homes outside.

The transit-focused urban development approach is being applied in some cities in the United States, Europe and Japan as a means by which new urbanism and smart growth are realized. These two principles are aimed to prevent urban sprawl and recover balanced harmony between man and nature by creating a high density, mixed-use development around railway stations or bus stops, while integrating transport and land use.

In some Korean cities areas with rail have been developed around some metro and railway stations. But this is far from the TOD proposed by Calthorpe because it is not a walking- or bike-focused, but instead a car-focused development. Those areas have been developed with a priority on cars, rather than people, as configured by larger than six-lane roads. In addition, another point of difference is the lack of parks and squares, where residents or employees can take a break and relax, that people feel desolate on these roads.

Currently, the construction of new cities in the Seoul metropolitan area and that of the enterprise towns and innovative towns are being planned with the redevelopment and regeneration of existing urban areas in each city is being promoted.

Now we can achieve the goal of a sustainable urban development with a high quality of life only when we converse the existing car-focused development approach into public transport-focused.

#### • Application of Transit Oriented Development Approach

The seven design principles proposed by Calthorpe will be referred to if a transit oriented development approach is promoted. First, make sure that walking-friendly street networks are formed, which can maintain high density at the level of providing public transport services. Second, that the housing,

retails, work places, parks, public facilities are set with in an approximate 800m radius from a large station or a main route bus stop. Third, that walking-friendly street networks are formed, which allows one to travel on foot to any destination within a district. Fourth, houses are to be arranged in a complex way considering their type, density, and cost. Fifth, natural environment and public spaces with high quality are to be preserved. Sixth, that public spaces are created as centers for neighborhood living. Seventh, that the reconstruction of existing neighborhood districts is promoted according to public transport lines.

In consideration of the level of public awareness and income levels we believe that the best time has come to promote such an urban development so that urban activities are conducted by public transport, bicycles, and walking, without the need to travel by cars by properly arranging housing, commerce facilities, business facilities, parks, and squares around railroad stations, subway stations, and main route bus stops of a certain scale. Thus the policymakers and experts in transport, urban planning, environment, and architecture must seek specific measures that can materialize people's needs and preferences for the improvement in the quality of life and sustainable urban transport systems.

## Level of Public Awareness of People

### • Transport Culture

After Karl Benz and Gottlieb Daimler from Germany made the first commercial automobiles in 1885, Henry Ford from America mass produced cars in 1910 by using conveyor belts. This was the chance to greet the revolution of the spatial movement of mankind. In the US cars have become a necessity of life since they were popularized in the 1920s. After the main transport means of that time, such as horse-drawn carriages, bicycles, and walking were replaced with cars, our daily lives have begun to depend on these vehicles. People get many benefits from owning a car; the abilities to move faster, farther, and more easily, but have also lost many things.

Positive walking cultures, in which neighbors who met on the street would meet and converse, began to disappear gradually due to the smoke and noise of cars. Donald Appleyard, a scholar of urban street landscape, reported in a San Francisco case study, residents living next to streets of relatively slow traffic volume, where 2,000 cars ran a day, could hold conversations with 3 friends and about 6 neighbors, but residents living on larger streets where 16,000 vehicles would run, 8 times the traffic volume, met only 0.9 friends and 3 neighbors. An urban critic, Jane Jacobs lamented that the city became vulnerable to crime, while the scenery at one's home could once see people walking on the street, soon disappeared due to the growing volume of traffic (1964).

In Europe and North America the processes related with changes in people's actions, behaviors, habits, orders, norms, and moral, etc., in accordance with car use, possession, and operation environment are defined as car or automobile culture. In Korea it is referred to as transport culture. In his 1975 work, The Car Culture Flink asserted that the level of car culture is an indicator for the distinction of cultural level of a country or a city.

The Korea Transportation Safety Authority (2005) has measured the levels of transport culture in each city during the last 17 years. Measurement indicators were researched in driving behavior, walking behavior, and traffic safety. For example, the focus of the driving behavior investigation was put on intersection limit line observance, seat belt usage and signal observance. While for walking behavior jaywalking and compliance with crosswalk signals was the focus. And for traffic safety the number of traffic accidents and death toll was examined. In 2004 it was announced that among 83 cities Jeju, Yongin, Chungju showed the high indicators for car culture. Necessary to raising the car culture standard of each city is a reformed consciousness concerning driving and walking behaviors, improving transport facilities, tightening control on disorderly behaviors, improving standards for motorists' sense of order, and continuously educating and promoting.

- Traffic Safety

In the year 2010 we lost approximately 5,500 precious lives in traffic

accidents and suffered an economic loss of more than 19 trillion won. Korea is yet counted as one of the countries with the highest traffic fatality rate among the 30 OECD countries. In the meanwhile many measures for traffic safety were carried out in order to remove Korea's stigma as seen in its nickname "the kingdom of traffic accidents." As a result, traffic fatalities have slowly decreased, but the numbers of accidents and injuries are still rising.

France was a country with high traffic fatality rate in Europe. President Jacques Chirac who attained re-election in 2002, singled out 'settlement of traffic safety' as the first task to be achieved during his term of office. He put the focus of his traffic safety policy on the observance of traffic rules and the strengthening of traffic safety education and promotion. His policies included the great expansion of speed limit enforcement cameras and reinforced construction of automation systems for regulation and enforcement. He instigated a traffic crackdown by arranging a large force of unmarked police cars on roads. He increased penalties and fines for high risk drivers and those responsible for vehicular homicide and abolished lifetime licensing laws. Recognized as methods to protect innocent people from reckless drivers, these powerful traffic safety policies greatly appealed to the public. The breakthrough result of a 20% decrease of traffic fatalities only in two years poses many suggestions to the Korean nation.

Traffic safety policies in Japan provide many lessons as well. Until the 1960s in Japan traffic fatalities reached 17,000 people per year. However with the Traffic Safety Prevention Act established in 1970, efforts to reduce traffic accidents were intensified. The main measures were to extensively maintain the road environment, to provide expanded traffic safety education, to ensure vehicle safety, to raise awareness of traffic law, to separate roadway and sidewalk, and to construct an emergency and rescue system. Japan became a globally recognized model country, in particular by reinforcing penalties against drivers at high risk of committing traffic accidents and drunk drivers, as well as strengthening laws and regulations such as the establishment of new accident laws involving injury or vehicular homicide .

Meanwhile Korea has made incessant efforts to reduce traffic accidents.

The revision of the recent Traffic Safety Act can be said to be a part. But yet traffic accidents are being defined in Act on Special Cases Concerning the Settlement of Traffic Accidents in the case of involuntary manslaughter and the penalty level for violating other traffic laws have been very low compared to developed countries.

The crackdown on drivers at risk from creating accidents by such methods as speeding, signal violations, and drunk driving received the greatest degree of clemency in comparison with developed countries. In addition, an amnesty for signal violators is frequently granted. These road safety policies and regulations have obvious limitations on the ability to protect the life and property of the people.

In order to raise traffic safety standards, a measure must be created that is faithful to basic principles as shown in the safety policies of France and Japan. The 3 E's (education, engineering, and enforcement), of traffic safety, are the basics. A preparation for a specific measure must be made, through which traffic safety facilities are largely improved to raise an awareness standard for traffic safety, strict enforcement of disorderly behaviors and social control are properly carried out, while particularly continual education and promotion are improved in order awareness of car drivers.

- Community Participation

Previous polices of a city government were determined based on representative democracy, where representatives of the public represent their will, but there are many cases where roles and responsibilities of representative organs are not performed well. Thus recent participatory democracy is being stressed; thereby creating a tendency to provide an institutional apparatus to allow the public to actively participate in decision-making processes.

Arnstein (1969) classifies types of public participation in decision-making processes in a local community into eight stages (see table 1.8). It is categorized by three types of participation: non-participation, tokenism, and citizen power. Arnstein's claims about community participation have been

much reflected in the U.S.'s urban planning and policy deciding process since the 1970s.

**Table 1.8 Arnstein's types of community participation**

Types of participation	Participation methods	Activities
Non-participation	Manipulation	Public education, enlightenment
	Therapy	Preparation for opportunities of a surge of public needs
Tokenism	Informing	One-way communication by a government
	Consultation	Hearing of public opinions in a meeting or a public hearing
	Placation	Convergence of resident opinions through participation in committees
Citizen power	Partnership	Active reflection of resident opinions
	Delegated power	Residents' exercise of influence on planning, the policy decision-making
	Public control	Public planning, decision-making, and enforcement

In Jackson's explanations community participation was divided into five stages (Jackson, 2001). They are informing, public education, testing reactions, seeking ideas and alternative solutions, and seeking consensus (see Table 1.9). A difference from Arnstein's type of community participation is that an emphasis is placed on resolution of a conflict through community participation.

The Administrative Procedure Act is aimed at securing fairness, transparency, and reliability of the administration while protecting the rights of the public, by defining common things concerning administrative procedures and encouraging community participation in administration.

To promote a sustainable urban transport system the construction of a substantial system is required for community participation, in which information is provided to the residents from the beginning of the plan, they and developers reach an agreement by preparing an alternative that can be of mutual satisfaction to both parties.

**Table 1.9 Jackson's stages for community participation**

Participation stages	Activities
Informing	Target population lacks information about subjects and issues One-way communication
Public education	Public education concerning techniques or implications is scarce One-way communication
Testing reactions	Residents request more information about subjects or issues Two-way communication, consultation
Seeking ideas and alternative solutions	Seeking alternatives for the satisfaction of both parties
Seeking consensus	Reaching compromise and consensus of both parties

## Transport and Low-carbon Green Growth

In 2008 low-carbon green growth was made the new governmental paradigm. In February 2009 the Presidential Committee on Green Growth was established, in July the Green Growth National Strategy and a five-year plan covering 2009-2013 were founded. In December the Basic Act on Low-carbon Green Growth was enacted. In addition in the International Climate Change Conference in Copenhagen in 2005, South Korea declared 30% reduction goal in greenhouse gas emissions according to the 2005 BAU (business as usual) standard by 2020. Now, the low-carbon green growth policy has become state agenda requiring compulsory implication, rather than optional.

The gist of low-carbon green growth is to shape a virtuous cycle of economy and environment by reducing fossil energy consumption and greenhouse gases in the course of economic activity. In other words, the core of low-carbon green growth is the creation of a future new growth engine and jobs through the development of green technology and clean energy.

The government set the ambitious vision that the nation shall rank with the seven greenest countries in the world by 2020 and with the top five by 2050. Also it presented three major strategies of adaptation to climate change, energy independence, creation of new growth engine, and improvement in the quality of life and enhancement of national position, through three strategies

consisting of 10 major policy directions and 50 practical tasks. The transport sector is mentioned briefly in the policy direction of green land and transport from the strategy clause and the practical task of green traffic systems and vitalization of riding bicycles.

The Ministry of Land, Infrastructure and Transport sets in accordance with the national strategy, low carbon green traffic as the vision of the traffic sector. It is aimed to reach a 33-37% reduction of greenhouse gases to the 2005 BAU ratio by 2020. The determined promotion tasks are strengthening of transport demand management policies, lifestyles enabled by bicycles and walking, realization of faster, more convenient public transport in comparison to cars, construction of a green logistics system for the sake of railways and coast shipping, and the development and diffusion of green transport technologies.

The problem is how we can prepare some practical measures to achieve these goals. For example, how can strengthening transport demand management policies reduce car usage? We need policy discourses about how demands are restrained just in case vehicle traffic volume is not decreasing, rather increasing in spite of a rise in oil price, or whether in Seoul we should have measures as collecting congestion fees as done in London, Stockholm or Singapore. The activation of daily life accompanied with bicycle riding and walking can be mentioned as the core of green transport. However, there are not many techniques to design and install bike roads properly on the main routes in big cities where taxi stations and bus stops still exist. Further, it must be presented what the measures are to improve the reality that pedestrians have to walk through the middle of the road where cars run due to the lack of a sidewalk.

The task for the realization of faster, more convenient public transport compared to cars also requires to seek implementation methods. Seoul City's bus reform in 2004, based on a semi-public bus system, became an object for benchmarking large cities in other countries, for owing to this bus reform the services for bus passengers have greatly improved. However, it is necessary to present concrete measures on how to correct the problem of annually

rapidly increasing subsidies for Seoul bus companies. As for the construction of green logistics system for railways and coastal shipping, what measures are required to remove the perception that “railways always run deficits,” it is necessary to closely analyze whether rail or marine-based transport are more advantageous than land-based shipping. In addition it is needed to make clear in a concrete way what the development and diffusion of green transport technologies means, that is, whether it refers to electric cars or intelligent transport systems (ITS). Among the 27 key green technologies selected in the 2009 comprehensive measure for green R&D technologies set to receive 107 trillion won investment, the quantity set aside for the development of green transport technologies could be marginal.

The transport sector occupied 21% of South Korea’s fossil fuel consumption; within that number motor vehicles consumed 79%. The emissions of greenhouse gases in the transport sector account for 20% of the South Korean emissions, 81% of that is discharged from motor vehicles. The transport sector plays a large role in countering climate change and promoting green growth policies. In spite of this, transport specialists have made little contribution to setting national policy agenda and policymakers seem not to have expected very much. If the green transport agenda now discussed is developed into the national agenda, it is an urgent need for experts to seek a measure while the opportunity for policy change remains open.

## 06

### Conclusion

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The purpose of this chapter was to set up a system, which enables us to formulate and implement sustainable urban transport policies and to present, based on it, some visions and promoting strategies for the improvement in the quality of life and a sustainable urban traffic system. To do this, we

looked at changes in policy discourses for urban transport, using a social institutionalism approach. When we analyzed studies from Korea, the United States, the United Kingdom, and Japan a pattern emerged. The pattern shows some specific measures are being applied to urban transport for sustainable development and global warming prevention; new urbanism, smart growth, the new deal policy, new realism, Kyoto Convention and so on.

This trend can be interpreted as a result of counteracting the environmental damage and destruction from urban expansion with excessive air pollution and transport energy consumption accompanied by car-centered behavior. Although Korea is benchmarking foreign models, it does not seem yet enough to change existing car-focused policy discourses. Therefore, in order to realize the vision and the promotion strategy for sustainable urban transport and improvement of quality of life, we need an approach, through cooperation among policymakers, the general public, and interested parties in the decision making process of planning and policy. This chapter is summarized as follows.

First, for the vision of sustainable urban transport many values are setup and refined: sustainability, efficiency, equity, integrity, safety, and participation. It is also needed to materialize these values with concrete strategies.

Second, some promotion strategies are proposed on the basis of these visions: the improvement in transport facilities and means, the reorganization of transport-related legal system, the empowerment of transport-related promoting agents, the rationalization of allocation of transport investment resources, the integration of transport and land-use planning, the improvement in public awareness and so on. In addition, the establishment of action plans is required.

Third, an application of a variety of traffic calming techniques are necessary for the expansion of residential roads rather than the construction of main route roads by way of improving transport facilities and means. We must also promote the development of green transport like public transport, walking, and cycling, and examine the introduction of effective new transport means for the diversification of travel methods.

Fourth, we have to reorganize urban transport-related legal systems in consideration of present and future urban structures, economic activities, and public behaviors, to make a transport basic act to secure the publics' right of travel, and protects against the duplicate institutes or lack thereof taking the hierarchy of law institutions into account.

Fifth, the investment priority of a project must be decided in order to justify allocating financial resources for the installation of city and metropolitan area transport facilities and means. The diversity of resources supply, except tax and non-tax receipts, must be sought such as principle from beneficiary and polluters as well as attracting private capital.

Sixth, a measure to minimize waste by segmentation must be institutionally sought, while various fields such as transport, land use, environment, economy, health, wellbeing and so on being integrated in the decision-making process and planning. Some suggestions will be found from that in the USA SAFETEA - LU law and the PPG13 from the UK in which an urban government compulsory integrates land use and transport plans into a single process.

Seventh, continuous promotion and education is necessary to enhance the level of public awareness in transport cultural policies, improvement in traffic safety, community participation and so on. Likewise if the public participates from the early stages of urban transport planning, their opinions can be gathered and reflected in the planning, thereby avoiding large-scale disruptions.

Finally, one of the important measures for dealing with climate changes is to reduce fossil fuel consumption and greenhouse gas emissions. Thus, since the transport sector plays a large role in promoting low-carbon green growth policy, a search for solutions is urgently required for the transport sector to contribute to national policy agenda.

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## Conflict Management and Governance Models



# 01

## Introduction

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### Purpose of Study

In Korea, mobility and accessibility not only within a city but between regions have been significantly improved due to continued investments in the transport sector. In particular, thanks to the construction of nationwide highway networks and Korea Train eXpress (KTX) high-speed rail networks in order to ensure the mobility between regions, one can now travel from one side of the country to another within a quarter of a day. However, if looking at the travel patterns between regions, we can see a tendency that vehicle traffic is dramatically increasing in volume, whereas use of public transport between regions shows a tendency to decrease comparatively.

In particular, express buses, intercity buses, and rural buses have been significant modes of transport creating connections between various metropolitan cities, large cities and small- and medium-sized cities, and between farming and fishing villages to small- and medium-sized cities. But the numbers of bus vehicles and ridership showed a tendency of reduction over the past 10 years. It is partly because cars have been continuously increasing in ownership and usage, alternative modes of transport such as

aviation and high-speed trains such as the KTX are in operation, preferences of long-distance passengers requiring higher quality bus services, and transport demands have been reduced in their basis due to a falling birthrate and an ageing population. This resulted in discourses about reviewing and reorganizing public transport nationwide.

In order to reconfigure the nationwide public transport as an integrated system it is necessary to understand what its purpose is and what the means and the measurement of its performance are. As a purpose for the reform of an integrated public transport system we can address in general accessibility, mobility, sustainability, integrity among transport modes, integrity in transport and land use, the integrity in construction and operation of transport facilities, integrity in transport-related organizations and the like. What is more important than anything as a strategic means of a transport system, that is able to achieve goals of governance, financial resources, infrastructure, technology, and community support. In addition, some standards for performance measurement of a public transport system are to improve the mobility and accessibility, make effective cost reductions, improve regional competitiveness, create jobs, improve public health and safety, strengthen security, and to reduce pollution sources for climate change and greenhouse gas. Therefore, this study is aimed at finding some answers for the following questions while keeping in mind goals and strategic means for the reform into an integrated system and a performance measurement in relation to the nationwide integrated system of public transport.

Firstly, we consider what the current status and problems of a nationwide public transport system are, and why the reform into an integrated system is needed.

Secondly, we will discuss who all interested parties are in the reform process of nationwide public transport systems, what kind of reactions they show, how they can resolve potential conflict, and what the theoretical backgrounds are regarding governance systems suitable to this task.

Thirdly, it must be grasped whether there is a case in which public transport systems have been ever reorganized in Korea, how conflict among

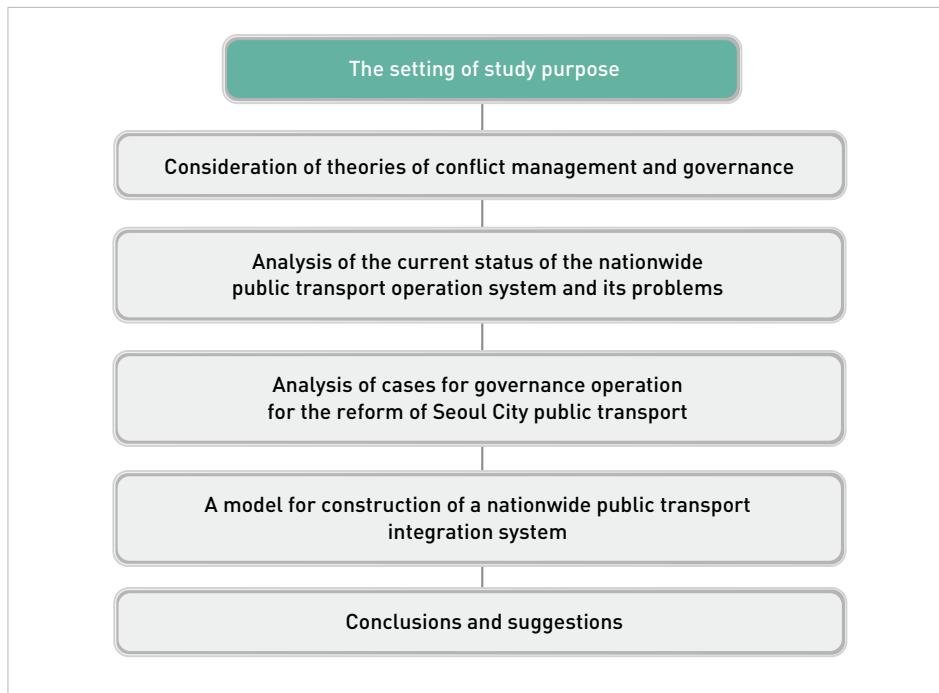
interested parties was managed, and what role the governance has played in promoting this reform.

Fourthly, we present a proposal on how to build the governance in order to promote a nationwide public transport system reform.

## Scope and Method of Study

The period of this study ranges from 1990 to the present and geographically covers Seoul and South Korea. In terms of contents we will deal with the current status of the nationwide public transport operations and its problems, review theories of conflict management and of governance, analyze some cases for the reform of Seoul City's public transport system, show the need for integration of operating systems of public transport and lastly propose a governance construction measure for the management of these integrated

**Figure 1.5** Diagram for flow of the study



systems.

What we have studied are the review of preceding studies, the analysis of statistical data, the theories of conflict management of Thomas and Pruitt & Rubin's research methods and the theories of cooperative and network governance, some cases for the reform of Seoul City's public transport system, and finally a governance model for the construction of a nationwide integrated system for public transport. Figure 1.5 shows a diagram of the flow of the study.

## 02

# Theories of Conflict Management and of Governance

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## Theories of Conflict Management

### Contents of Conflict in the Transport Sector

The transport sector can be classified into persons and freight depending on the transport objects, into inter-region and intra-city according to the space range, into roads, railways, ports, and airports along the transport facilities, and into automobile, bus, train, trucks, aviation, or ships according to the transport modes. Of such transport modes, automobiles, buses, subways, taxis, bicycles and walking can be classified as urban transport modes. Depending on regulation and the operation agencies there are operators and regulators such as the central and local government, railway and subway corporations, and so on, as well as private enterprises such as bus and taxi companies.

Interest relationships between stakeholders are very complex due to such diverse characteristics of the transport sector. Thus, a multitude of conflicts arise in the process of adoption and implementation of goals and issues

setting related to transport-related policy, policy formation, and the adoption and implementation of policies.

For example, conflicts can arise in the decision process of priority concerning interrelationships among private transport or public transit, freight movement, and logistics depending on whether a policy goal will be made car- or people-centered, or road- or railway-focused, highway- or high-speed railway-focused, automobile- or public transit-centered, bus- or subway-centered amongst public transit, giving priority on a facility supply or on a demand management.

An analysis of conflict structures is necessary due to the involvement of many stakeholders in the reform of a nationwide public transport system. Generally a conflict begins when one perceives that they must come into collision or opposition without concessions, their goals and benefits differing from the others. In this conflicting process a potential intervention or collision occurs and both parties are in an opposition to each other. There is an interdependent and an intercommunicative form in handling this problem.

### Thomas Conflict Management Mode

The theory of conflict management established by Thomas divides into the process aspect and the structural aspect. The process aspect of the theory includes mental and behavioral activities between the parties in the conflict relationship, temporal continuity relationships, degrees, forms, results of a conflict, and so on. Whereas the structural aspect refers to norms, incentive systems, standard procedures, and decisions on system process, the structural theory explains the conditions for controlling conflicts with 4 variables such as behavioral preconceptions, social pressures, structure of incentives, and procedural rules.

Thomas (1974, 1992) illustrates forms of conflict handling in a two-dimensional model of assertiveness and cooperativeness, as seen in Figure 1.6. In other words, he divides conflict managements into five styles: avoiding, accommodating, competing, collaborating, and compromising.

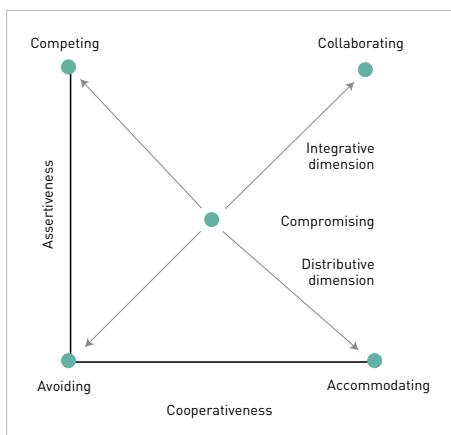
The avoiding style signifies that one party tries to avoid a conflict with the other, while the accommodating style means that the individual is cooperative with the perception that she or he excels the other party to his or her benefit. The competing style can be found in cases, where one party is in competition with the other, taking an uncooperative strategy due to the other party's benefit being greater than his or hers. In contrast to that, the collaboration style refers to individuals having cooperative relationships to each other with the perception of a win-win relationship by solving problems and achieving all their goals or interests. While the compromising style is defined as a case for mutual negotiation with a mutual gradual concession of benefits sought one party or the other.

Generally an area where conflict often occurs is on an axis between the avoiding and the competing styles as shown in Figure 1.7. This is because the situation, in which one is bound to cope with the other party due to a high possibility of their personal interest being violated, as the other party takes an aggressive strategy. The collaborating style is the most ideal in conflict management and resolves the situation easily. However, reality frequently shows that all of the interests of both parties are rarely met in policy implementation of the public sector. Therefore, the style conducted largely in the public sector is the compromising style, with which one and the other partner negotiate, conceding each interest little by little.

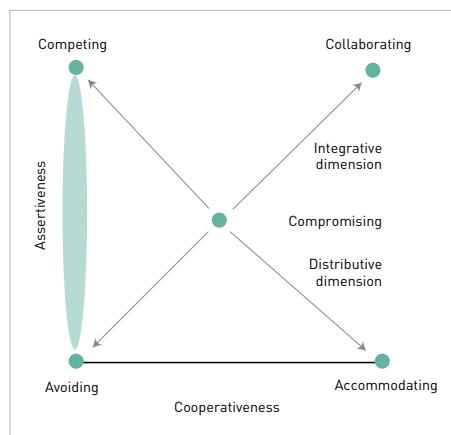
Thomas argues that a conflict intention as a problem solution is determined by rational normative thinking and emotional control. This intention is a strategic one, which will smoothly deal with the disadvantages of both parties. A conflict management depends on the interdependent dimension, in which the twin goals of benefit selection and problem solving are performed.

Here the benefit selection is concerning a partisan choice of a party, a joint welfare choice of both parties, or a systemic choice of all parties. As the output best derived by mutual cooperation the problem solving gives confidence and satisfaction to the individuals, trust and respect to the relevant groups, and can permit the decision makers of an organization to make a

**Figure 1.6 Thomas Conflict Management Mode**



**Figure 1.7 Axis of avoiding and competing style generating conflicts**



systematic decision through information exchanges.

### Pruitt and Rubin's Conflict Management

Lee (1986) has analyzed a policy conflict generated during the construction of the multipurpose Yeongwal Dam, using Pruitt and Rubin's 5 styles of conflict management: avoiding, accommodating, controlling, collaborating, and compromising style (see Table 1.10). A difference of this model from that of Thomas is found in 'controlling' instead of 'competing,' but both concepts are the same. The interesting point of Lee's study lies in the change in form and strategy of conflict management of actors according to the early, middle and final period of conflict.

For example, while the concerned parties that are influenced directly by a government policy take the accommodating strategy, the government policy practitioners take the controlling style of conflict management strategy in the early period and then coordinators or moderators appear. Or as time goes on, each party use the avoiding, the accommodating, the controlling or the compromising style as a strategy and then a variety of conflict management strategies are used as a reaction following the strategy of the other party: the compromising-controlling, controlling-compromising, controlling-

collaborating, accommodating-compromising, compromising-accommodating style, and so on. Table 1.11 shows a summary of conflict contents, main agencies, and conflict resolving modes of following projects emerging as cases for conflict management: the construction of Yeongwol Dam, the site selection for Jaecheon City's Resources Management Center, the Inducement Project of the Food Resource Facility at the North District of Ulsan City, the Cheonggyecheon (Stream) Restoration Project and the Bundang-Jukjeon Road Connection Project. Conflicts are resolved by organizing an official third-party investigation team being neutral for cooperative governance,

**Table 1.10 Styles of conflict management**

Styles of Conflict Management	Features
Avoiding style	<ul style="list-style-type: none"> <li>• When one has no time to respond</li> <li>• When one sees no possibility of problem solving</li> <li>• When it is not possible to grasp the power and degree of concession of the other party</li> <li>• When one cannot see the possibility of problem solving, it is difficult to grasp the core of the problem, and one is going around in circles</li> <li>• When there is no appropriate proposal and no concession from the other party or such concession is far below one's expectations</li> <li>• When it is advantageous to temporarily put the conflict to the side due to certain circumstances</li> <li>• When conflicting parties pretend not to know the conflict itself</li> </ul>
Accommodating style	<ul style="list-style-type: none"> <li>• When one was persuaded by the other party's logic</li> <li>• When one agrees 100% with the logic of the other party</li> <li>• When one yields 100% without remembering other commitments</li> <li>• When one yields 100% only due to weariness of fighting</li> <li>• When relationship with the other party is a top priority</li> <li>• When one is in a much more disadvantageous position in their business without concession due to the relative superiority in power from the other party</li> </ul>
Controlling style	<ul style="list-style-type: none"> <li>• When one is sure of possessing superior power compared to the opponents</li> <li>• When one is sure of possessing superior logic compared to the opponents</li> <li>• When one judges that there is nothing to lose</li> <li>• When one thinks the existing relationship with the other partner is trivial, or has not received harm from the other party</li> <li>• When one's belief is firm</li> </ul>
Compromising style	<ul style="list-style-type: none"> <li>• When one accepts damage to their own profit</li> <li>• When one endures estrangement from the other party</li> <li>• When it is judged to be advantageous in the profit or relationship to accept some damage in the long term</li> </ul>
Problem-solving style	<ul style="list-style-type: none"> <li>• When one believes in their own problem solving abilities</li> <li>• When one has a driving problem solving force</li> <li>• When one is sure that there are ways to satisfy 100% of issues</li> <li>• When one can find a moderator</li> <li>• When both party's interests and mutual relationship are important</li> </ul>

Source: A Cultural Analysis of Policy Conflict Management Behaviors by Sun Woo Lee

**Table 1.11 Conflict management cases**

	Range and Object of Research	Research Contents	Main Subjects	Conflict Management
Case 1	Construction of the Yeongwal Dam	Analyzing the formation processes of competition and consensus of governments and NGOs in policymaking. Review of the functioning of collaborating governance as a solution mechanism in the changing processes of dynamic relations generated by policy competing of early stakeholders	Policy organizations: The Ministry of Land, Infrastructure and Transport, Environment Department, Water Resources Public Corporation, Gangwon Province, and Yeongwal County Stakeholders: Local residents and the Federation for Environmental Movement	The formation of an official third neutral consultation mechanism [joint investigation team]
Case 2	Site selection for Jaecheon City's Resources Management Center	Analyzing a conflict resolution mechanism to minimize conflicts regarding the case of the site selection for Jaecheon City's Resources Management Center, which was done in short order without great conflict	Jaecheon City's local residents, specialized research institutes, Site Selection Committee	Moving away from the existing local government-led position and constructing a close cooperating system of stakeholders through a third institution [Site Selection Committee] for a collaborative governance
Case 3	The Inducement Project of the Food Resource Facility at the North District of Ulsan City	Arrangement of effective means of solution to policy conflicts through providing continuing deliberation and a governing device among stakeholders in sharp opposition to the process of promoting non-priority facilities	The Ulsan City North District Parliament, local residents, public jury	Achieving a deliberate democracy by means of providing an official governing device (civil jury system) for cooperative governance
Case 4	Cheonggyecheon Restoration Project	Cheonggyecheon Restoration Project was a large-scale construction project. The project could be completed in a short period of time due to Seoul City's proper utilization of conflict resolution mechanism despite intertwined with stakeholders. Analyzing the conflict resolution mechanism used in this case	Seoul City, sales merchants, street vendors, local residents, general public, research group for supporting the Cheonggyecheon restoration, The Civil Committee for Cheonggyecheon Restoration	The construction of a triangle-shaped cooperative governance system consisting of Seoul City, the Committee and a supporting research group in order to break away from government-led and one-sided policy promotion
Case 5	Bundang-Jukjeon Road Connection Project	Considering the formation process of a cooperative governance for the development of the region at the case for the Bundang-Jukjeon Road Connection, examining factors that promote and interfere with formation of a collaborative governance as a conflict resolution mechanism	The Ministry of Land, Infrastructure and Transport, Korea Land Corporation, Yongin City, Jukjeon residents, Seongnam City, Bundang City residents, Gyeonggi Province	Gyeonggi Province aimed to adjust and mediate opinions of Yongin City and Seongnam City, but it was insufficient. Participation in policymaking at the early stage was needed, it is important to form trust.

or by the interested parties building a close cooperative system through a location selection committee as a third organ for cooperative governance, moving away from the leadership position of an existing local government. In addition, deliberative democracy is partly achieved, through the operation of a civil jury system as an official governing device. In the case of the Cheonggyecheon restoration, a triangle-shaped cooperative governance system consisting of Seoul City, the Citizens' Committees and a supporting research group was formed in order to break away from a city government-led style and one-sided policy promotion. In the case of Bundang-Jukjeon road connection the Province of Gyeonggi tried to take the role of adjusting and mediating opinions between Seongnam City and Yongin City, but it was insufficient.

From these cases of conflict we can presume a requirement for the interested parties is to participate from the early stage of policymaking and it is very important to form a mutual trust in order that cooperative governance works in a way in which conflicts can be managed.

## Theories of Governance

### Definition of Governance

The functions and roles of state, market, and civil society have changed greatly, as globalization, informatization, and regionalization have progressed at a rapid pace since the 1980s. With a reduction in power held by the state and government, the trend has shown itself as a market owning capital is playing an increasingly important role along with the role and scope of engaging civil society, like non-governmental organizations, is expanding. This tendency requires a new relationship among the state, the market, and the civil society. A newer form of government is referred to as “from government to governance” (Rhodes, 1996).

The concept of governance has been defined in various ways by scholars.

For example, Kooiman (1993) considered governance as a system with dynamism, complexity and diversity, in which one-sided relationships between government and civil society had been changed into relationships of mutual exchange. Rhodes (1997, 2000) defined it as a self-organizing network connecting the public and the private sector. Jessop (1997, 2000) saw it as a negotiating and agreeing system through the cooperation among interdependent participants, whereas Pierre (2000) defined it as a government mode, with which public problems are jointly solved, as a created network among various subjects.

A distinction can be made between governance in a broad sense and governance in a narrow sense. The former is defined as a mechanism, by which a government policy problem is solved, while the latter is considered as both a formal and informal process of mutual exchange, so that participants engaging in policy decisions and implementation, as well as interested parties solve their common concerns. High value is placed on the processes, in which opposition and contradiction among participants having diverse interests go through avoidance, accommodation, competition, collaboration and compromise mentioned in the conflict theories.

The governance in the narrow sense is called new governance or network governance. It means that the participants in governance participate in government's policy and decision-making by formal and informal networks. In summarizing these definitions, governance can be defined to be a way in which diverse actors such as the government or state, market, and civil society promote pending policies or plans through a constructed horizontal network of mutual interchange and cooperating relationships, while its breaking away from government-led, centralized, vertical, and top-down promoting mode in a planning or policymaking process.

### Characteristics of Governance

Governance is characterized by co-governing system, in which socially complex problems are solved by a consensual system putting emphasis on the

autonomy of participating subjects, recognizing interdependence, cooperating by partnership and networks and conducting conflict mediation.

The future of governance is to consider the public or residents not as objects of management, but as actors, who participate in important policy decision making and to put emphasis on self-organizing networks and accessible in a down-top fashion. The participation form of governance is rather substantial, active than formal and passive; relationships among members are not vertical and work in a horizontal partnership and network with having authority and responsibility.

Therefore, governance is arranged to seek collective actions such as cooperation and consensus, partnership and network, interaction and social capital, empowerment and accountability.

### Types of Governance

Types of governance are divided into collaborative governance and network governance (see Table 1.12). The collaboration in collaborative governance means that more than one organization minimizes the conflict structure, participates as a stakeholder in policymaking processes and works jointly. In other words, in collaborative governance, as a type to solve a policy problem through dialogue and compromise among participants, a mutual communication of participants is an important element for conflict management.

The collaborative governance can be said to be a new way to solve social problems, by which new public values are created, the existing organizational bounds are transcended and policies are made through the interaction between autonomous actors and organizations. It puts emphasis on solving problems of interests as a cooperating system, as moving away from the existing one-way decision or implementation and allowing interested parties to participate in the policy process.

As mentioned above, it is a type to solve a policy problem through dialogues and compromises among the participants. Goldsmith and Kettle

(2009) argue that we should cultivate eight core competencies. As shown in Table 1.13 the eight cores are: competency to make relations with participants; competency to have an influence and negotiate; competency to use human relation technology; competency to create and innovate; competency to recognize external environments; competency to have entrepreneurialism; competency to solve problems; competency to manage conflicts.

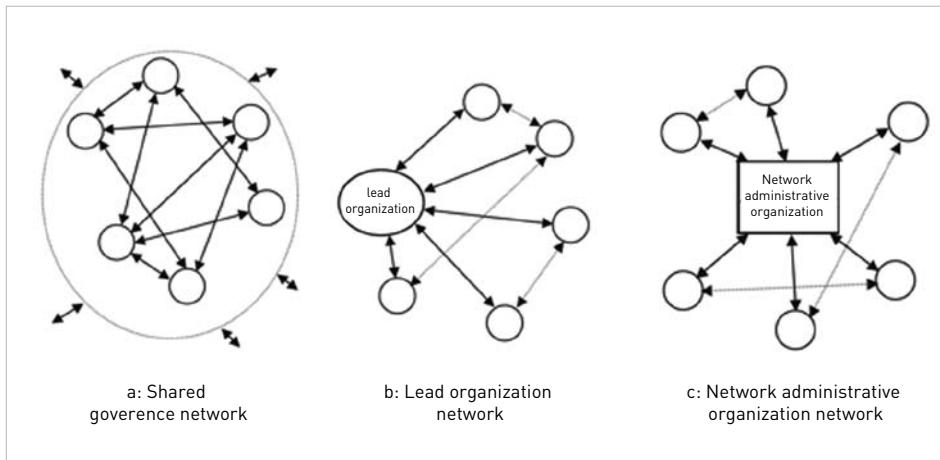
Network governance is a type suitable for the dynamically changing environment as a new alternative solution to problems the governance hierarchy and the market have. Mutual relationships between government and civil society in the network governance are ones not of dominance and submission, but of cooperation, not vertical and subordinate but horizontal and interdependent. Network governance is also a solution to social problems by informal and social constraints, or self-governing and mutual agreements. It is expected to be able to solve a policy problem without the government's formal authority but with an autonomous network between participants and actors.

Kenis and Provan classify types of network governance into shared governance network, lead organization network, and administrative organization network.

The shared governance network is a form, in which network participants deal with problems of interest spontaneously. In this form all the participants perform mutual interchanges on equal terms. Though their number is small, their mutual trust is large in this process. The success or failure of the shared governance network will depend on the participation and dedication of stakeholders. One of its characteristics is that leaders and leading organizations play an important role in goal attainment, as controlling interest problems. The network administrative organization network is characterized by consisting primarily of government organizations and non-governmental organizations (NGOs). External organizations enter into the network and are responsible for coordination.

Forms of the network in the network governance differ according to case studies. When early conflict is coming to surface at a stage of expression

**Figure 1.8 Types of network governance**



it demonstrates a lead organization network, at the deepening stage of conflict it shows an administrative organization network, whereas in the intensification stage of conflict it takes the form of a shared governance network and at the adjustment stage of conflict it conducts in the form of administrative organization network. The network governance helps one to understand relationships of cooperation and conflict among stakeholders.

Types of governance are divided into conflicting governance and collaborative governance, depending on whether it is a conflict or a collaboration relation. Conflicting governance is a type to be opposite, hostile, and exclusive among the participants in its forming process, whereas collaborative governance is a type to solve a policy problem on the basis of the collaboration among its members through dialogue and participation. Other types of governance can be distinguished in various ways according to objects of its application. For example, when the city, as a space unit, is taken, urban governance as a governance form originating in a specific place called city can be said to be an adjustment form to solve urban problems by cooperation and consensus among acting subjects, while the stakeholders, such as urban government, the public, companies, civic organizations and professional associations, create partnerships and networks.

Urban environment, where urban problems arise are so complex and

**Table 1.12 A comparison of collaborative governance and network governance**

	Collaborative governance	Network governance
Common points	<ul style="list-style-type: none"><li>Solutions to social problems against the existing bureaucratic hierarchy</li><li>Co-steering, co-managing</li></ul>	
Main differences	<ul style="list-style-type: none"><li>Governance process-centered</li><li>Focusing on governance as a network, it lights up autonomous politics, concentrates in cooperation and results.</li></ul>	<ul style="list-style-type: none"><li>Governance structure-centered</li><li>Focusing on the coordination of interests and structures originating among stakeholders in order to solve social problems</li></ul>
Definitions	<ul style="list-style-type: none"><li>A new solution to social problems creating new public values beyond existing organizational boundaries and policies through mutual exchanges among autonomous actors and organizations</li></ul>	<ul style="list-style-type: none"><li>Informal and social constraints, or a solution to social problems by self-governmental and mutual consent</li></ul>
Features	<ul style="list-style-type: none"><li>Public institution-led interchanges</li><li>Participation of non-governmental organizations or members of society</li><li>Direct participation of stakeholders</li><li>Collective action organized formally</li><li>Pursuit of consensus interaction related with solutions to public problems</li></ul>	<ul style="list-style-type: none"><li>Voluntary participation and cooperation</li><li>Horizontal relationships among autonomous stakeholders</li><li>Regulations by autonomous adjustment and non-institutional equipment</li><li>Creation of a bottom-up mechanism</li><li>Emphasis on voice of regions and fields</li><li>Dynamic mechanism-oriented, such as feedback</li></ul>
Main scope of study	<ul style="list-style-type: none"><li>Solving problems of conflict, such as the installation of non-priority facilities</li></ul>	<ul style="list-style-type: none"><li>Building a network of governance for the solution of social problems</li></ul>

**Table 1.13 Goldsmith and Kettle's 8 core competencies of collaborative governance**

Core competencies	Competency contents
Competency to make a relation with participants	Competency to form a network among relevant parties and to draw a cooperation transcending organizational boundaries
Competency to make an influence and a negotiation	Competency to persuade participants and to create a win-win situation, drawing a bond of sympathy
Competency to use human relation technology	Competency to respond appropriately in consideration of participants' demand and feeling and to respect and care about them
Competency to create and innovate	Competency to present an innovative solution, develop new insights and to design and implement a new problem solution
Competency to recognize external environments	Competency to grasp in real time important policy environments, such as recent international situations and social trends and to establish medium and long-term planning
Competency to have entrepreneurialism	Entrepreneurial competency opening up new conveying modes of services and put a new business into practice
Competency to solve problems	Competency to identify social problems, analysis them and to provide specific solutions
Competency to manage conflicts	Competency to preemptively take action to avoid unpleasant answers, manage and resolve conflicts and disagreements in a positive and constructive way in order to minimize their negative effects

Source: LEE Gyu Myoeng [2012]

diverse that for an urban government alone it is difficult to solve problems in the reality of life these days.

So according to a common view of scholars studying urban governance,

we are now at the time when stakeholders must participate with a mutual trust and create an urban governance with a form of cooperating, negotiating, and consenting, while having an equal relationship with the urban government in order to solve urban problems.

## 03

### **Current Situation and Problems of the Nationwide Public Transport Operation and Necessity of Reform for the Public Transport Operation System**

#### **Current Situation of the Nationwide Public Transport Operation**

##### **Sustained Decline in Travel Demand on Inter-regional Public Transport**

Modes of nationally operated public Transport fall into express buses, intercity buses, railways, shipping, and aviation. According to the material presented in “Construction of an Integrated System for Nationwide Public Transport” issued by The Korea Transport Research Institute, the total traffic volume as for the modes of nationwide public transport are 1,124,750 daily in 2010 decreased by 64% over the past 20 years, compared with daily traffic volumes of 3,085,478 in 1990. Looking at each modes of transit, the intercity bus system decreased 74%, express buses by 50%, and the railway at 25%, whereas shipping and aviation increased by 73% and 83% respectively. These numbers indicate that the traffic volumes of the intercity bus, the express bus, and the railway which run between regions are all greatly decreasing.

The intercity bus in particular decreased greatly not only in the traffic volume, but also in the share ratio during the past 20 years. The share ratio of the intercity bus accounted for 78% in 1990 and dropped to 55% in

2010. The analysis shows that the number of intercity bus passengers was significantly reduced with a lower share ratio due to a rapid rise in private vehicle ownership and as alternative modes, such as automobiles, aviation, express bus, railroad, and so on, were mostly used.

Some reasons why the traffic volume and the share ratio of the intercity bus continued to decrease was the service level intercity buses could provide was lowered, and that the systems and linkage of bus routes, charges, information, operation, and administrative management all had problems.

### High Level of Dependence on Automobiles in Interregional Transport

A survey on the 2009 interregional traffic volume between the Seoul metropolitan area and Daejeon City and Chungcheong Province by transport modes, such as automobiles, buses, railroads and so on, showed that the proportion of automobiles was 58%, buses 22%, and railway 19%. It implies that the modal share of automobiles is high with distances of about 150 km. It also explains that the use of automobiles was preferred over that of buses and railroads at distance of more than 400 km, as the sharing ratio of automobiles accounting for 44%, buses 20%, and railroads at 3% between Seoul metropolitan area and the area of Busan City and South Gyeongsang Province.

What is interesting in the survey is that it shows that interregional traffic flow has an insufficient connection with a very high dependence on cars, as in the interregional flow between the area of South Jeonla Province and that of Busan and South Gyeongsang Province and between the areas of Busan City and South Gyeongsang Province with that of Gangwon Province the usage of cars amounting to 73% and 76% respectively.

In summary, for the share ratio of cars to be more than 40% in long-distance travel of 200 km or more proves that various systems of interregional public Transport, such as route, linkage, fare, information, and administrative management have problems.

## Decline of the Competitiveness of Rapid Express Buses and Intercity Buses

As described above, while the use of passenger cars continues to increase in interregional Transport, the number of passengers in express buses and intercity buses decreases annually. It is understood that there are many buses transporting only 3-4 individuals in the daytime on weekdays on some routes. A vicious cycle is experienced as a decrease in bus passengers leads to a fall in fare-box incomes, which results in financial difficulty of bus companies, which bring about lowering service levels, which could cause an increase in government subsidy, which may lead to a continued decrease in bus passengers. Such a phenomenon appeared in Seoul City's buses before the bus reform and has provided motivation for the bus reform.

## Increase in the Financial Burden Associated with the Inter-regional Public Transport Operation

The total amount of the government's financial support in 2001 was 174.4 billion won. Of these the central governmental expenditure accounted for 75.8 billion won and local government 98.6 billion won. In 2010 the total amount increased greatly to 908.2 billion won. Of these the central governmental expenditure was on a slow and slight increase, whereas the local government was on a rapid increase of 21% annually to be 748.7 billion won. This leads to a great increase in the financial burden of local governments. Increase in the financial burden resulting from local governments' bus operation is connected with a reduction of bus routes and becomes a link in the vicious circle causing a decrease in demand for bus services.

## Problems of Nationwide Public Transport Operation

From the socioeconomic perspective the interregional travel demand by riders

seemed to show a downward trend, which comes from the reduction of an economically active population and in particular a rural one by the slowdown of population growth rate due to the low fertility and aging. The ridership of the interregional public transport like intercity bus, express bus, and railway also continue to decrease, while the short, as well as the long travel of more than 200 km have a higher private car use rate. In addition to this, the decline in purchasing power due to the economic downturn has made operation for public transport difficult.

In terms of transport policy, one of the causes for the recession in public transport can be found in the fact that the public transport industry does not break away from the existing passive and dependent form and that it does not accommodate a direction, to which the nationwide transport policy of the government flows advantageously for public transport, as moving from the private to the public at large, from a intraregional to an interregional transport.

When viewed from the management aspect of the bus industry, the continuous expansion and maintenance of road networks have made it difficult to provide qualified bus services as passengers prefer the use of cars. Not only express bus but also intercity bus usage is continuing to decrease in ridership and thereby influencing an earnings decrease of these bus companies due to the enlargement of high-speed railway network like KTX, and its leading to an increase in financial burden of local governments.

## Necessity of a Reform of the Operation System for Nationwide Public Transport

### Route System

Route system of bus transport is dualized into intraregional and interregional systems, the interregional system is also dualized into intercity bus and railway. Thus the travel to destinations is time consuming owing to

insufficient number of routes in different localities and long intervals between bus service frequencies. Passengers using public transport like bus, railway, and so on suffer inconvenience due to difficult linkage between intercity buses and KTX. A restructuring of the overall route system concerning public transport in general, particularly the intercity bus in consideration of starting locations, passages, route number, service frequency, dispatching interval, travel time, and a linkage system with other modes of transport, is necessary.

### Transfer System

Passengers undergo much inconvenience travelling to cities, whether small- and medium-sized or big cities, when the total travel time increases significantly due to the lengthened waiting time to transfer due to of a lack of transfer facilities and low service frequency of intercity buses in small- and medium-sized cities. This is because general terminals, terminals for express and intercity buses as interregional transport hub and transfer function are insufficient. Therefore, location and site layout of overall facilities for connection and transfer like hub and spoke are needed to smooth the transfer among public transport modes.

### Information System

A problem of the information system for public transport in terms of users is that it is difficult for them to set up the starting time due to the lack of integrated information for transfers and connections, the starting and transfer time in each modes of transport, and knowing beforehand about remaining seats and transfer information for each modes.

It is also hard for users to grasp in advance integrated information about reservation and payment in each transit.

Operators have pointed out the function of real-time scheduling among connecting modes of transport is weak due to the lack of an infrastructure for real-time information about operation in interregional public transport and

a variety of integrated information and contents are insufficient. Therefore, it is necessary to create an information system for public transport based on intelligent transport systems (ITS), which takes the nation as a unit.

### Fare System

Seamless public Transport's fare system increases user convenience as its operation exists in an integrated manner as a single unit for metropolitan areas. However, fares involving interregional travel are not yet integrated. This is because fare standards in each transport modes are different and a discount system is insufficient in its diversity due to the adoption of provider-and cost-centered fare system. For this reason, there is a limit providing welfare and services to the end users.

Thus, it is necessary to maximize the welfare of public transport users, pursue social fairness, and provide a variety of options according to users' characteristics. It is also necessary to seek to maximize the transport revenue for providers and operators, connections between the transport modes, and to minimize operating costs and difficulties in passengers' inconvenience.

### Administrative Management System

From the user's point of view express buses have a higher quality of services, but intercity buses have more cost-intensive. This comes from similar businesses of both types of buses are mixed in interregional operation and management systems are dualized. Rearranging bus routes is also difficult as it is operated in a province-centered way while management subjects are dispersed by the Ministry of Land, Infrastructure and Transport to each city and province.

The distinction between types of buses, such as rural buses, city buses, and intercity buses as local routes have little significance but they raise difficulties in transfer and information integration, for management subjects and fares are dualized.

Excessive competition exists for intercity buses. Examples are as follows: profitability is worsening due to a deepened imbalance of supply and demand as well as the overlapping operation of routes, adjustment of routes is difficult due to the dispersion of license issues by the authorized authorities, and the number of vehicles is increased as a dimension of the route license defense in spite of worsening profitability. Some causes for that consist in the insufficiency of route operation database and monitoring systems for intercity buses, dualizing of relevant authorities, and neglecting structural problems like restructuring of bus companies and routes with moving away from local companies.

Poor transfer facilities and conflicts of interest among local governments about facility locations and financial resources, create great difficulty in using the transport facilities and hinders site selection and utilization of transport facilities for local government agencies located near bus garages. This is because transfer facilities, bus garages and such were commercialized by each local government and adjustments concerning site selection, financial resource sharing, joint use, etc. was incomplete.

Frictions in terminal user fees frequently occurred between terminal owners and bus companies as users for intercity terminal facilities. This occurred because terminal owners are more concerned with revenues from commerce and entertainment facilities than users' convenience. For individual bus companies owning terminals, the facilities are being used with main reference to its own enterprise. Each region and company is operating the site selection, facilities, and computer systems by their own methods without considering integrative approaches. It comes from a lacking of connecting transport facilities and activation of public transport, an insufficiency in the function formulation and support of location and facilities, and thus reinvestment is not possible due to the absence of profitability of most bus terminals being run by private entrepreneurs.

# 04

## **Background of the Reform of the Public Transport System and Establishment of the Role of Structure of the Committee on Bus Reform: A Seoul Case Study**

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### **Background of the Reform of Public Transport System**

#### **External Factors**

Due to external and internal factors it was necessary to reorganize Seoul's bus system since early 2000s. External factors included socio-economic transport policy, road facilities, environmental, and bus companies' management aspects. While a continued decrease in bus travel demand, decrease in operation service, loss of publicity of bus routes, and management aggravation of bus companies can be mentioned as internal ones. These factors acted in a complex fashion and as a certain amount of time had passed a fundamental restructure of the bus system became necessary.

With the improvement in income per capita and public consciousness, higher quality public services were demanded and improved travel services in the interregional mobility and accessibility were requested, which can be mentioned as external factors of the bus transport system reform. Additionally, from the year 2000 a social consensus began which, in the spirit of social equality, desired quality public transport services to be provided regardless of income level. The need for the provision of appropriate transport services for socially disadvantaged people was raised and in particular for the poor, disabled, elderly, and youth.

Seoul City's Urban Transport Development Master Plan reflected the public's desire to prepare a new urban transport policy aimed at constructing a sustainable and integrated transport system, focusing on such things as human-centered transport, public transport over automobiles, maintenance

and management of transport facilities rather than on their construction, the transition to transport demand centered approach from transport supply centered approach, all the while moving away from a car-centered paradigm.

Buses operate on arterial and auxiliary roads between the origin and the destination. These bus vehicles must be in suited condition with proper vehicle maintenance, bus stop intervals, and facilities like bus shelters properly maintained. However, on most roads vehicles like passenger cars, buses, and trucks are in a mixed state. So operating schedules becomes lengthened due to the lack of priority processing systems for bus operation. Safety is threatened owing to the lack of bus garages where buses can be stored and maintained at night.

Some buses in Seoul used compressed natural gas as fuel but most buses used diesel before the reform. Air pollutants, such as carbon monoxide, nitrogen oxides, and hydrocarbons are emitted from diesel vehicles due to an incomplete combustion of fuel. For this reason many residents requested an environmentally friendly bus operating system.

From the 1960s to the mid-1980s the main mode of transport in Seoul was by bus. But bus ridership decreased from 1974 to 2000 with the operation of eight metro lines starting with the operation of the first subway line in 1974. This decrease of passengers led to a decreased fare box revenue for the private bus companies thereby worsening the financial situation of those companies. This in turn worsened the service level of buses. It was a vicious cycle of a decrease of bus passengers → decrease of fare box revenue → worse financial situation for bus companies → worse service → decrease of bus passengers.

### Internal Factors

Considered an internal factor for the reform of the bus transport system is the modal share of bus continued to decrease from 43% to 26% with a rapid increase in privately owned vehicles and the improvement of metro services. There were many long-distance bus routes, overlapping routes in some areas while other areas had no bus services. This caused a decrease in passenger

demand as travel time was consumed due to winding, long-distance, and overlapping bus routes. In most sections of bus operation the average operating speed of buses was 17 km per hour or less because of traffic congestion.

Continued operation of worn down vehicles, unkind behavior of drivers toward passengers, occurrence of bus involved accidents, lack of transfer facilities connecting buses to other public transport like subways, and suspending operation in twilight hours caused bus passengers to seek other transport modes. In addition it was difficult to secure punctuality and travel speed due to irregular bus frequency. As such it was impossible to predict the waiting time and bus arrival time.

There were 364 bus routes in Seoul at the time of the reform. Each route was operated almost monopolistically. Some routes were very profitable while other routes were running a deficit due to a lack of passengers. This situation led to profit disparity among routes and among the companies running them. As such small companies become financially instable leading to bankruptcy or becoming objects for mergers and acquisitions. The trends toward the monopolization of bus routes became a factor for hindering popularity and publicity.

Some bus companies secured financial transparency by having a management structure, whereas some others had pre-modern management structures, which in turn led to mismanagement. This mismanagement bus companies led to an increase in Seoul City granting financial subsidies.

## Promotion Contents of the Reform of a Bus Transport System

### The Bus Route System

In the bus route reform, function-centered bus routes were turned into hierarchy-centered route systems of trunk and feeder roads. Buses which run along the hierarchy-centered route system were classified into intercity buses which are in operation in Seoul and adjacent cities, trunk road

buses connecting main locations on the trunk road axis feeder road buses connecting housing complexes and subway stations in a district, and circulation buses connecting city center or subcenters. The local community buses, which run between neighboring areas or between a neighboring area and a subway station, belong to feeder buses.

### The Fare Structure of Buses

The bus fare was raised from 700 to 800 won due to the bus system being restructured. The bus fare system was converted from the existing uniform system into an integrated scale based on distance. In the integrated fare system covering buses and subway lines, a bus to bus transfer is free and transfers from subway to bus have an additional discount. For transfers on areawide buses and intercity buses connecting Seoul and adjacent cities, riders receive a transfer discount due to an agreement between Seoul and cities and counties in Gyeonggi Province.

### The Introduction of a Semi-public Bus Operation

Implementing a semi-public operation was intended to ensure publicity in bus operations, as well as to maintain efficiency of private bus companies. The semi-public operation promoted a shorter bus headway or a more frequent bus service, improved the attitude of bus drivers guaranteed safe driving, and could bring a better network of bus routes linked to poor public transit service areas.

A competitive route tender system was introduced order to ensure publicity of bus operating system. A service competition between bus companies was created and the bus revenue management was done jointly. In the previous system each bus company individually managed the revenue based on the number of bus passengers. Seoul City converted the revenue system to be based on kilometers driven per bus. If the balance of payments results in a deficit, Seoul City would provide financial subsidies for it.

## The Introduction of a New Transport Card

As part of the bus reform a new transport card was introduced. Bus passengers were recommended to use the new card in order to have a discount when boarding and transferring from bus to bus or from bus to subway. It helped to grasp the fare revenues of bus companies in a transparent way by promoting conveniences of passengers and reducing cash paying passengers. In the early stage of the reform, bus passengers reported many complaints and a high level of dissatisfaction due to failure of the card recognition system, but over time the failure rate dropped significantly.

## The Installation and Operation of Median Bus Exclusive Lanes

Exclusive bus lanes installed in Seoul were mostly at roadsides, not in the middle of road. These lanes had a limit in effectively playing the role of exclusive bus lanes, as mixed traffic such as passenger cars, trucks, and buses were intertwined on such lanes. With the reform median exclusive bus lanes of a total length of 27.1 km has been constructed at three routes on Dobong-Mia Street in the northeastern part of Seoul, on Gangnam Boulevard in the south, and on Soengsan-Susaek Street in the north-west. The installed median exclusive bus lanes contribute in increasing the bus speeds due to the installed exclusive lanes on which only buses can run.

## Formation and Role of the Bus Reform Committee from a Governance Standpoint

### Background of Formation

Discussions and research on the reform for the bus transport system of Seoul were conducted from August 2002, but the substance of the agenda was adopted by a council meeting of seven civil organizations attended on

June 11<sup>th</sup>, 2003. At this time its members had requested Seoul City that bus system had to be entirely reorganized and an ad hoc committee needed to be established in order to achieve goals of sustainable transport policy.

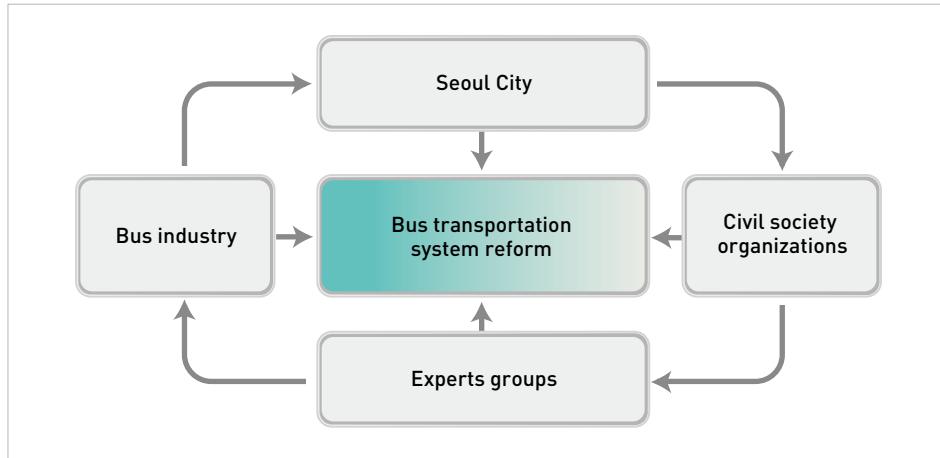
In response Seoul accepted their request on the 17<sup>th</sup> of June and asked to recommend the members of the Bus Reform Committee in order to form a committee. As a result, on the 21<sup>st</sup> of August 19 members were appointed in the beginning and consisted of officials of the Seoul City government, officials of the Seoul National Police Agency, representatives of the bus industry, representatives of civil society as well as representatives of academies and researchers. They began to discuss draft reform proposals at the first meeting on the 26<sup>th</sup> of August.

## Participants

The formation of the participants of the Bus Reform Citizens Committee is shown in Figure 1.9. The committee consisted of total 20 members: four representatives from the government including one from Seoul City, one from the Seoul Police Agency, and two representatives from Seoul City Council, four representatives from the bus industry including two from the Seoul Association, one from the Seoul Community Bus Association, and one from the Seoul Bus Labor Union , four representatives from civil society organizations, eight representatives from experts groups including six transport experts, one accountant, and one lawyer. Initially it was 19 members, but one additional member was added. The Transport Improvement Planning Team and the Transport Improvement Promotion Team, including the public transport section of Seoul City's Department of Transportation, supported the committee while preparing materials for the meeting and organized the meeting of the committee members.

These participants were representatives sharing the interests of each stakeholder with the exception of the expert groups. For example, the participants from Seoul City were planned and implemented the city's transport policy, with helps of the members from the Seoul City Council and

**Figure 1.9** Participants of the bus reform committee



the head of traffic control bureau of Seoul Police Agency. The representatives from bus companies were the chief and vice-chief of the Seoul Bus Association, the chief of the Seoul Community Bus Association, and the chair of the Seoul Bus Labor Union.

In addition representatives of civil society organizations participated in the committee, such as the Citizens' Coalition for Economic Justice, the Green Consumer Network in Korea, and Seoul YMCA. These members represented standpoints of the government civil society, and residents respectively as partners that make up the city governance for the bus transport system reform, as actors of the network and as the stakeholders.

### Activities

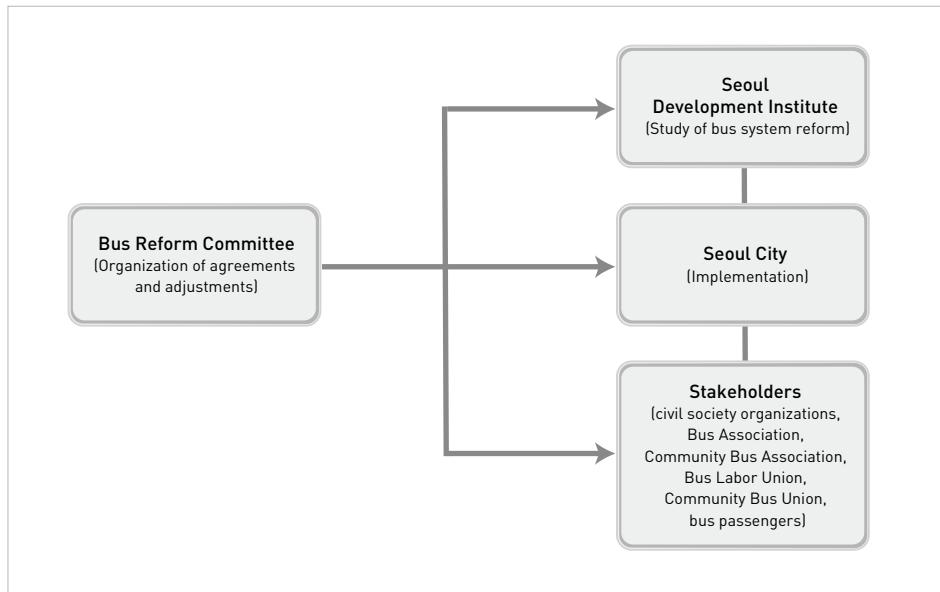
The main purpose of the Bus Reform Committee was to promote the reform project of the bus transport system successfully in order to improve bus services for the people of Seoul. To achieve this, the committee held a total of 28 meetings, of which 19 times were held between the 26<sup>th</sup> of August 2003, when the first meeting was held, and until enforcement of the reform on the 1<sup>st</sup> of July 2004 and 9 times after the reform until the end of December 2004. The meetings were held regularly about twice a month and the number of

attendants was about 15 on average.

According to records of the main issues that were discussed by the committee, the first meeting held in August 2003 discussions about a draft proposal on the reform of the bus system, which the Seoul Development Institute (now Seoul Institute) had examined for one year since August 2002. Afterwards there were discussions about almost all agendas related to the reform. These are a proposal for the setting up of median bus exclusive lanes, the reform matter of the bus operation system, a plan for the introduction of articulated buses, a plan for the hierarchical system of bus routes, quality screening of consulting firms examining bus operating costs, a plan for the introduction of new transit cards, an improvement plan for the welfare of bus drivers, a plan for the promotion of Seoul City's bus system reform, a plan for the reform of the community bus operating system, an introduction plan for the integrated fare system of public transport, status reports prioritizing negotiations of companies bidding on the main bus routes, a joint management plan for bus farebox revenues, and a management plan for cash revenues collected from farebox of buses. The members were induced to consult with each other when there were underprepared agendas or severe conflicts of opinions among members. In such cases the revised agendas would be submitted again at the next meeting and would be determined as final agendas after going through discussions and after converging opinions again.

After the reform of the bus system was conducted on 1<sup>st</sup> of July 2004, issues that occurred in the implementation process were discussed. For example, discussions were held about further measures on pending issues. These are the root cause analysis and complementary measures of the faulty new transportation cards, the identification of problems and countermeasures of the operation of the median bus lanes, the lacking bus revenues, the management measures of bus advertising revenue, the estimate breakdown of and calculating guidelines for standard bus operating costs, measures to reduce inconveniences, the readjustment of less passenger routes, measures of the loss of bus drivers' wages due to suspension of the bus services on

**Figure 1.10** Decision-making process of the bus system reform proposal



weekends, and measures of compensation for losses due to the transfer discount when using community buses.

While the committee reviewed the reform proposals for the bus system several times from August 2003, it approved the proposal in June 2004, collecting opinions of directly affected participants of Seoul City, representatives of the bus industry, civil society organizations, and bus passengers. The determined proposals were finally reviewed by Seoul City and then implemented (see Figure 1.10). In this process the committee collected the participants' opinions concerning important agendas through hearings, briefings, workshops, and overseas business trips and then promoted them.

### Conflict Management

Conflicts that arose in the process of Seoul's public transport reform took place between almost all institutions, groups, and members that were related to bus transport. In particular, sharp conflicts occurred between Seoul and the central government (Ministry of Construction and Transportation at that

time) due to bus-related regulations and between Seoul and the bus industry due to various issues such as the introduction of quasi-public bus operating system, readjustment of bus routes, bus fare adjustment, joint revenue management, forms of subsidization, calculation of standard bus operating costs, and so on.

Also, there were a series of complex and diverse conflicts between institutions and between groups. These are the conflicts between Seoul city and autonomous district authorities regarding the installation of median bus lanes, or the conflicts between Seoul city and merchants along the lanes due to the possible movement of the bus stops. Also there were the conflicts between city buses and community buses regarding route adjustment transfer discount, and the calculation of relevant revenues, and the conflict between Seoul city and some cities of Gyeonggi Province regarding the introduction of new transit cards and calculation of the transfer fare. Various forms of conflict that occurred were characterized by the fact that all interested parties acknowledged the legitimacy and need of the bus reform as a whole, but tried to accomplish it through their particular interest.

### Collaborative Governance

There were no problems raised from outside of the committee's formation regarding the representability of its members though it was an organization not defined by related statutes, but considered as a form of task force holding authority devolved by the mayor. Such an organizational characteristic could play a significant role in adjusting conflicts between the stakeholders and drawing compromises and consensus through down-top access rather than top-down.

The committee operated as a form of collaborative governance. That is, it reflected advantages of a collaborative governance to the utmost with the members forming networks, discussing through persuasion and a bond of sympathy, through respect and concern about the opinions of the others, through resolution methods of constructive conflict management for clashes,

through in-depth analysis and presentation of implementation measures concerning bus reform plans, and through an emphasis on communication between participants.

Summarizing the characteristics of conflict management shown in the process of the Seoul City Bus Reform, there were many conflicts primarily between stakeholders and most of them consented that the ultimate beneficiaries must be the end users. The subjects causing the sharpest conflict were Seoul City as a regulator and business license, the Seoul Bus Association as a representative of the bus operators and the Seoul Bus Labor Union as a representative of bus drivers. The form of conflict was not destructive but constructive and the cause of conflict creation did not originate from goals, but from means.

Viewed from the side of stakeholders' participation, the committee as a form of governance guaranteed the participation of all stakeholders whether direct or indirect. It adapted the method of coming to compromise or a consensus either through discussions, coordination, mediations, or through negotiations, as all controversial plans proposed to the committee. Thereby the committee ensured the democratic nature of decision-making of a policy, actively using advantages of collaborating and network governance.

## 05

### **Governance Model for Building an Integrated System of Nationwide Public Transport**

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#### **The Target of Building an Integrated System**

If nationwide public transport will be integrated, it must be judged whether both buses and railways or only buses are the targets of integration, and if only buses then whether intra-city, intercity, rural, or express buses are the targets. As for nationwide buses and railways, being responsible for surface

transport, may be the targets of integration. But railways and buses are operated by public organs and private companies, respectively. As a result both transport modes are quite distinct from each other in terms of their subjects. So it is practically difficult to prepare a plan to integrate rail and bus at least for the first phase.

If it is difficult to integrate rail and bus together then buses covering intra-city, intercity, rural, and express can be targeted. When looking at the status of the nationwide bus companies in 2009, we can find that the number of companies totaled 522, bus fleets stood at 42,857 vehicles, bus routes amounted to 16,048, and bus workers to 94,054 personal. Intra-city buses constitute the mainstream of the bus industry, for the share of the number of companies, ownership, employees, and bus routes holds up 65%, 73%, 77%, and 44% of the whole number, respectively. They cannot be considered as public transport operated at a national level since their operated area ranges are limited within metropolitan and medium- or small-sized cities.

Although rural bus routes hold 25% of the whole, they cannot be said to be public transport at the national level along with intra-city buses, because they are running mainly in rural areas. Especially the deficit ratio of rural buses in 2008 was at 109%, about three times more than the 30% of intra-city buses. When leading rural bus companies neglect the operation of buses, residents suffer from many inconveniences trying to use public transport. So it is expected that rural buses would be operated in a flexible way according to demand.

Rural buses flexibility is by a demand form of service which defines service areas and carry passengers according to their ridership demand. They are expected to ease significant inconvenience of rural residents that must correspond their schedule to the operation of buses due to the rare frequency of bus services.

As for intercity bus companies they total 17% of the whole comprised of 87 companies, their fleets at 18% with 7,760 vehicles, employees at 15% with 14,493 personal, and the number of routes at 30% totaling 4,881. As mentioned above, intra-city and rural buses cannot be seen as nationwide

public transport due to their service area range and their nature of operation, whereas intercity and express buses can. Therefore express and intercity buses can be targets of nationwide public transport integration.

According to an enforcement ordinance of the Passenger Transportation Service Act, operation forms of intercity bus business service are divided by express, nonstop, and general buses. Express buses belong to intercity express and intercity premium buses, whose mileage is more than 100 kilometers, more than 60% of which sections in service run on express highways, which cannot stop between the starting and the ending stops in principle only stopping at express highway rest stops.

Intercity nonstop buses must stop at more than one another administrative area in addition to the starting and ending stations. But the buses can run without stopping at distances less than 100 kilometers and whose operating routes rely less than 60% on express highways. The general buses are characterized as intercity buses which stop at each bus station.

Principally express, nonstop, and the general kinds of intercity buses can be the targets of integration, but primarily intercity nonstop and general buses require restructuring. According to a research intercity bus companies frequently bring excessive competition, in ways such as overlapping service, around specific areas or routes being fully aware of competing companies despite little profits. This results in deepening imbalance of bus services and a worsening of revenue and expenditure. Thus, the integration of buses can reduce excessive competition in ways such as competing routes offering overlapping service.

In addition, some intercity bus companies not only generate difficulties in the attempts of improving services, but also intensify pressure in rate increases and burdens of financial support due to a reduction in competitiveness, while poor competitiveness worsens their gross revenue and expenditure. Fare increases of public transport service are not easy to accept politically as it stimulates inflation and increases a financial burden on low-income families.

Financial support for the intercity bus industry is difficult to accept as an alternative when taking into consideration the annually decreasing demand

of intercity buses with a continually increasing financial burden, as well as a lack of cost effective subsidy. So a solution must be sought to provide intercity bus services by fundamentally restructuring the intercity bus route system as well as the fare system.

To improve the competitiveness of intercity bus industry, efforts can be made to reduce the number of management personnel based on economy of scale through the enlargement of bus companies' size, reduce costs by buying in bulk, cut expenses through efficient management of personnel, finance, labor, and vehicles, ensure transparency of management with the introduction of audit systems and standardized accounting systems, and improve management through cross-subsidy due to the enlargement of fleet size and service area.

## Actors in Building an Integrated System

For establishing a conflict management and governance model, it is a basic task to grasp who the actors and participants are, or who the stakeholders are in the building of an integrated system of nationwide public transport. Who are the actors, the participants, and the stakeholders, who form, decide, implement, or manage policies in the governance system? How can the interest relationships among them be induced to be cooperative and how can conflicts be managed towards solutions? Obviously it is not easy to clearly find in advance who the actors or the interested parties are in the promotion of an integrated system of nationwide public transport.

According to Baud and Post (2002), a governance system consists of multi-stakeholders. A large number of organizations and groups participate in this system as the community and the private sector build cooperation. In other words, multi-stakeholders are in partnership with two or more actors, the actors being related to the provision of public services maintain long-term relationships. Such relationships provide benefits to all actors, even though they do not provide equal benefits. They are shown as forms of activity, in

which actors tightly invest materially or immaterially. There are also tensions, conflicts and collaborations in the negotiation process and the partnership depends on successful provision of public services.

Multi-stakeholders or partnerships, more concretely actors in governance, participate as stakeholders. Examples are as follows: policymakers in the central government, relevant government officials, members of the National Assembly, heads of local government and relevant officials, local councilors, chiefs of public agencies and employees, community activists, public service users, potential public service users, users excluded from public service, persons who do not use public services, residents, relevant enterprises and companies, occupation groups, volunteer organizations, and professional groups.

Actors in the integrated system of intercity buses among the nationwide public transport can be divided broadly into the government as a regulator, the market as a service operator for the public transport, and the civil society as a watchdog for regulation and operation by the government. More specifically they will be the central government in such groups as the Ministry of Land, Infrastructure and Transport and the Ministry of Strategy and Finance, which are responsible for the legal system related to the operation of nationwide public transport and financial support. Provinces and relevant cities and counties which are responsible for licensing intercity buses and supervision, the intercity bus companies, intercity non-stop bus companies, intercity ordinary bus companies, local civil society organizations, occupation groups, intercity bus passengers, transport experts, and so on will also be actors.

## Governance Model for Building an Integrated System

Collaborative and network governances can be adapted into a governance model for building an integrated system. It is common between these governances that they can make co-managing and co-ruling as a way to move

away from the existing bureaucratic hierarchy and solve policy problems. However, they are different in that collaborative governance is process-centered, emphasizes an autonomous co-ruling, concentrates on network cooperation and the corresponding results, focuses on the governance as a network, while the network governance is structure-centered and concentrates on adjustment and structure of interests arising between the relevant interested parties in order to solve policy problems.

Additionally collaborative governance takes a new social problem-solving approach to create new public values, transcending existing organizational boundaries and policies through interchanges between autonomous actors and organizations, whereas network governance is a way to solve social problems through mutual consensus in an informal and autonomous manner.

The collaborative governance is characterized by allowing participation of non-governmental organizations or community members, direct involvement of stakeholders, seeks intercommunications related to formally organized collective action and public problem-solving based on public entity-led interchanges. In contrast network governance is characterized by maintaining horizontal relationships among independent and autonomous stakeholders on the basis of their voluntary participation and cooperation, enables informal and flexible networks, and emphasizes pertinent public opinions by means of regulations through autonomous control with a down-top approach avoiding regulations or legal process.

The nationwide public transport system has a number of stakeholders intricately involved. But intercity bus services are directly related to the public's right-of-travel. Network governance fails in attempting to keep a horizontal relationship and managing conflicts.

So the collaborative governance type is judged to have higher suitability for managing expected conflicts by public institutions like the Ministry of Land, Infrastructure and Transport who actively requires stakeholders to participate seeking to solve stakeholder conflicts of integration of public transport through intercommunications.

If the collaborative governance type is more suitable as a governance

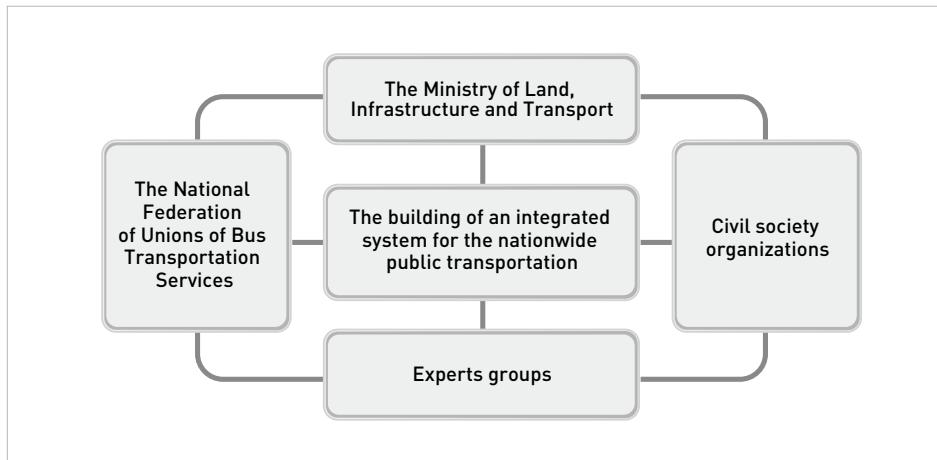
model for building an integrated system of public transport then the key task is how to organize stakeholders. To do this the Committee on Bus Reform, created by Seoul in 2004 when the bus transport system was reorganized, can be the benchmark. Above all, the Ministry of Land, Infrastructure and Transport precedes the research project on the integrated system of nationwide public transport with making an in-depth study concerning the legal basis, objects, scopes, structures, procedures, contents, methods, benefits, and risks of integration. Such studies can be performed by the Korea Transport Institute.

Meanwhile the tentatively titled National Intercity Bus Reform Committee will need to be formed and operated. As seen in Figure 1.11, the committee would be composed of the Ministry of Land, Infrastructure and Transport, metropolitan local governments, the intercity bus office for National Federation of Unions of Bus Transport Services, civil society organizations, experts for transport, business management, law, accounting, and so on. The number of its members can be adjusted depending on their function and role.

The committee plays a role in discussing and deliberating agendas requested both by the Ministry of Land, Infrastructure and Transport and from research projects, then finally reviewing and implementing the agendas consented by the committee members on the side of the ministry. An upmost need of the committee is to reflect the advantages of the collaborative governance, such as forming a network between its members, creating a bond of sympathy, respecting opinions, emphasizing communication, managing conflicts constructively at the time of disagreement between its members and intensifying discussions about the agendas for discussion and presentation of implementation measures.

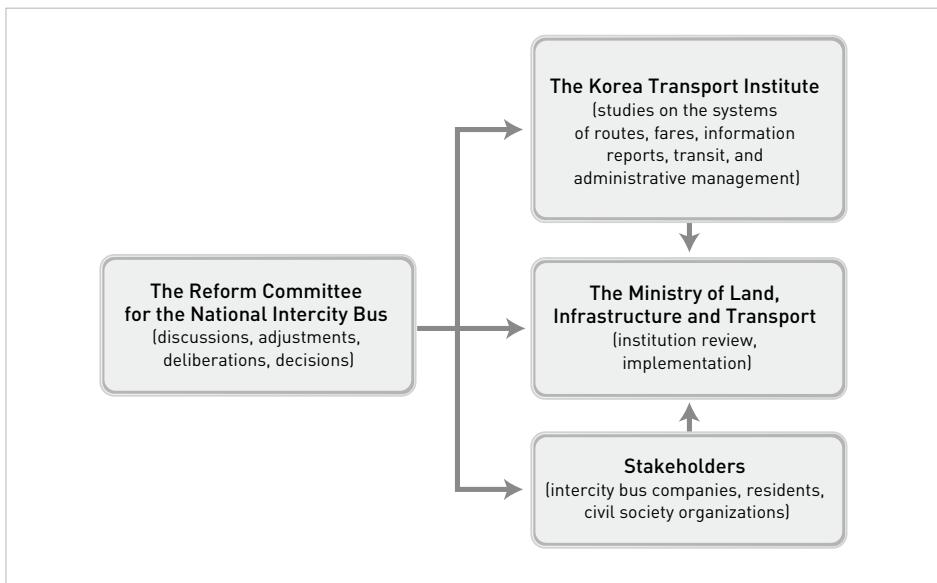
As shown in Figure 1.12, the National Intercity Bus Reform Committee plays a role in discussing, adjusting, deliberating, deciding integration agendas, reviewing the legal system related to the integrated system of the intercity bus and implementing the agendas decided by the committee in terms of the ministry. On the other hand, the Korea Transport Institute

**Figure 1.11** Nationwide Intercity Bus Reform Committee



studies the systems of routes, fares, information system, transfer system, administrative management related to intercity bus integration and develops agendas. Interested parties consisting of intercity bus companies, civil society organizations, and residents present their proposals to the committee or ministry and attempts are made to reflect them in the reform project.

**Figure 1.12** The roles between actors for building an integrated system of intercity buses



# 06

## Conclusions and Suggestions

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The main purpose of this study is to establish conflict management and a governance model for the building of an integrated nationwide public transport system. To this end, we have reviewed what the current system's situations and problems and considered why integrated system reorganization is necessary. And we have reviewed theoretical backgrounds about the governance system, which is suitable to see who the stakeholders in the reorganization are, what kind of response will be seen, and how the generated conflicts can be resolved.

Also, we grasped whether there have been cases for such reorganization in Korea, if there were then how conflict management was performed and what kind of role governance played for promoting the reform project. In addition we have presented the governance type for the building of an integrated system for nationwide public transport.

The target of the integration for the nationwide public transport is analyzed to be intercity buses such as intercity straight buses and intercity ordinary buses which are causing a sustained decrease in passenger demand and an increase in financial burden of local governments. An innovative and creative reorganization is required in terms of the contents of the integrated system as systems of routes, fares, information, transfer facilities, and administrative management.

Application of Thomas's theory of conflict management is necessary. And to construct a governance system, which can be induced to become a collaborating or a compromising type, minimizing conflicts and confrontations in the axis of the avoiding and the competing type, because conflicts among the stakeholders can be created in restructuring the integrated system.

If a governance system is to be constructed, the collaborative governance model is considered to be more suitable for adaptation than the network

governance model. That is because the network governance model involves informal, independent, horizontal, and autonomous relationships, while in the collaborative governance model public institutions like the ministry actively involve stakeholder participation, manage expected conflicts, and solve integration problems through negotiations.

The formation and operation of a tentatively titled Reform Committee for National Intercity Buses is required despite adaptation of the collaborative governance model. The committee can be composed of Ministry of Land, Infrastructure and Transport, metropolitan local governments, the National Federation of Unions of Bus Transport Services, civil society organizations, experts of transport, management, laws, accounting and so on.

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## Conflict Factors between the Central and Local Governments for Transport Facilities



# 01

## Introduction

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A local self-governing system has been launched in South Korea with local councilors elected in 1991 and heads of local governments elected in 1995. As a result, the expansion of urban infrastructure like transport facilities has emerged in each local government as a significant pending problem. In particular, there were numerous cases in which constructions of area wide transport facilities were delayed or demolished due to the exhausting and adversarial conflicts among relevant stakeholders in the process of supply and operation of transport facilities connecting regions. This led to national waste. Taking this into consideration, this study aims to explore conflict factors between the central and local governments around the supply and operation of transport facilities and to seek measures to promote transport projects by establishing cooperative relationships.

To attain this purpose we will analyze the current status and problems of the supply and management of area wide transport facilities, draw implications for policies, analyze conflict factors between the central and local governments, and suggest some improvement plans.

# 02

## Conflict Factors Due to the Supply and Management of Transport Facilities

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### Classification of Conflict Factors

The growth of metropolitan areas due to the concentration of population and industrial functions has resulted in increased needs for solutions to effectively supply and manage area wide transport facilities, such as roads, railways, airports, water supply, waste disposal, and sewage disposal between central cities and their surrounding areas. In particular, area wide transport facilities have the attribute that a decline in service quality of just one section leads to the decline in service quality of the whole system.

Thus, the main agents in charge of supply and operation of area wide transport facilities put an emphasis on maintaining continuity of the traffic flow. For example, if the number and capacity of vehicle roads in an intercity link road differ or roads are blocked at contact points with the intercity traffic flow which become boundaries, serious traffic congestion occurs and cars become trapped in a bottleneck. For this reason, as for all area wide transport facilities, the central government and relevant local governments, be it wide area or local, can promote common interests by reducing traffic bottlenecks through mutual consultation, coordination, and support.

However, in many cases, the installing area wide transport facilities leads to difficulties in problem solving due to conflicting interests between the central and local governments. Of course, it is not necessarily a bad thing for both governments to come into conflict. That is to say there are some positive aspects of conflict. One of them consists in an advantage that a waste in time, human and financial resources can be reduced through the support, cooperation, and coordination of stakeholders by highlighting issues concerning extension, capacity, and cost of route stands and road numbers in transport facilities that will be set up.

However, many observed cases included conflicts leading to a rapid increase in costs due to project delays resulting from excessive competition, distrust, opposition, or hostile relationships between interested parties, such as government agencies, applicants, companies, and civic organizations. In particular, there is the recent tendency in which hostile relationships increase among individuals and groups, as they jump on the social bandwagon taking the expression of understandings of individuals or interest groups for granted. Conflicts between the central and the local governments have mostly negative effects.

Types of conflicts can be classified into personal, organizational, and interorganizational conflicts. Conflicts relating to the supply and operation of transport facilities are mainly organizational or interorganizational. An organizational conflict includes a conflict in the central or a local government over urban planning, roads, railways, public transport, and so on. Conflicts among the Ministry of Environment, the Ministry of Land, Infrastructure and Transport, and the Ministry of Strategy and Finance or between the central and the local governments, as well as between higher-level and lower-level local governments, or between neighboring local governments are considered examples of interorganizational conflicts. In this study we will mainly deal with conflicts between the central and local governments.

Conflict factors between the central and local governments can be classified according to various criteria, but we can find them in legal, political, administrative, financial, and socio-cultural aspects. From the legal aspect, the fact that local governments tend to be very weak in terms of procedures and means of participation and convergence of opinions is due to the strong central government who leads legislation and administration processes thereby causing conflict. Conflict factors in the political aspect consist in the predominance of centralized and top-down practices over the decision making processes of spatial planning, be it national or local. In terms of administrative aspects, the dependence of local governments on the central government is the conflict factor as the central government exercises most aspects of authority including various rights of approval.

Likewise, in financial aspects conflicts arise from the financial dependence of local governments on the central government due to the enforcement of development projects of a local government by dependent financial resources, such as local allocation taxes, state subsidies, local surplus, and so on.

Conflict factors in the socio-cultural aspect often result from discrepancy between local governments dealing with local pending issues and taking charge of civil affairs and the central government supervising national development projects and policy execution. It is primarily due to a lack of opportunity for residents to participate in policy planning or decision-making processes.

## Relevant Laws and Institutional Factors

A legal and institutional fragmentation of transport related planning and its implementation are regarded as conflict factors between the central and local governments in relation to the supply and operation of transport facilities. That is, for the transport planning aspect of spatial planning, conflicts between the central and local, higher-level and lower-level local governments arises due to insufficient connectivity among some plans, which resulted from the mixed existence of comprehensive national territorial plans and key national transport network plans, local transport plans, urban master plans and urban traffic improvement plans, etc.

For example, metropolitan transport planning in accordance with the Special Act on Area Wide Transportation Management, land use planning and transport planning from the urban master plan according to National Land Planning and Utilization Act, road maintenance and improvement project according to the Road Readjustment Promotion Act, urban traffic maintenance and improvement project according to the Urban Transportation Improvement Promotion Act are established in line with the goal of the central and local governments. Conflict between governments could arise if a superordinate plan is different from local realities because a subordinated

plan reflects contents of its superordinate plan.

Particularly, since heads of the local government have been elected in 1995, local governments tend to establish ‘ambitious’ spatial plans in order to develop their local economy. However cases have occurred in which a part of the contents is excluded or modified during the approval process by the central government. This leads to much frustration or dissatisfaction of local governments. This was the reason why the function of urban planning and transport planning have been included in the handover function which local governments demanded strongly during the process of transferring the central government’s functions to the local governments. Thus, it is necessary to clearly recognize the role of the central and the local governments in the making and implementing processes of spatial planning. In particular the central government must seek to change its role as a supervisor and regulator into a supporter and coordinator.

One conflict causing factor between the central and local governments in relation to the supply and operation of transport facilities can be found in the insufficiency in capacities of the central government in exerting authority and coordination. The entrenchment of a local self-governing system, which started with the election of local council members and of local government heads, has helped transform the vertical relationships of the central and local governments to horizontal ones. Local governments have some duplicity in that they seem to have an equal relationship with the central government in spite of their substantial dependence on them.

In particular, there are many cases in which the requirement of public finance is necessary to the supply and operation of area wide transport facilities as projects delays lead to a rapidly increasing budget, which arises from a weakness in control ability of the central government in the conflict process between the central and the local, between local governments, or between a local government and residents or civic organizations.

Chronic traffic bottlenecks take place in the intercity boundaries, where it is difficult to build connecting transport facilities, as the promoting agencies of the organization are dispersed in the case of area wide road construction

projects. A cause of this phenomenon is that each local government has differences in road investment priority, route location, budget securing, sharing of financial resources, project timing and so on, which result in conflicts of interest creating setbacks in road connecting projects for intercity boundaries. Therefore some limits to project coordination exist when such an area wide road project is subjected to consultations from the local governments.

This causes traffic congestion and gives a negative effect on the area wide road project itself. For example, there are many difficulties in the systematic maintenance and management of road facilities, and traffic information, as the operation of highways constructed by the Korea Expressway Corporation under operation by a relevant city.

Area wide roads and railways are defined by the Special Act on Area Wide Transportation Management. The act prescribes area wide transport improvement measures must be established and area wide transport facilities set up concerning 10 projects, such as large-scale land development projects (more than one million m<sup>2</sup> in areas or more than 200,000 in housing populations), housing site development projects, urban development projects, and so on. This is a prescription that area wide transport facilities must be set up by relevant project operators because large-scale development projects can create traffic problems. The factors causing conflicts between the central and local government and between local governments are inherent in objects and contents of the established area wide traffic improvement measures.

Case in point one group was concerned about the alteration and abolishment of a planned road route due to the weaknesses in the role of the organizations and institutional apparatus being able to control excessive installation costs of area wide road facilities totaling approximately 73 billion won. Seoul, Gyeonggi Province, Goyang City, and Paju City additionally requested project operators to provide these costs in the consultation process of relevant organizations concerning some measures for road traffic improvement accompanied by the Paju city and Unjeong new town development project. This project is an example of the conflict between the

central government's policy and the interests of the related local governments in the process of consultation, although being promoted by the Ministry of Land, Infrastructure and Transport as part of new town development project.

In addition, there was a plan to build a second Jayuro road connecting the Unjeong new town and Seoul (12 km from Daewha interchange to Gangmae interchange) and access road to this second Jayuro road (5.2 km from Gangmae to Sangam). But uncertainty existed on whether the construction of these roads could be completed by 2008, when people were expected to occupy the planned new town. This uncertainty came from residents residing near the planned route who were against construction. It was good reason to require developers to install the area wide road facility in order to handle the increased traffic volume due to the large-scale development project. But the alteration or delay of the originally planned road facility eventually leads to an excessive burden for the new town occupants or facility users in account of mutual conflicts between the central and the local government, and between local governments. Thus a legal and institutional measure must be explored to improve the capability of the central and local government to exercise their authority and coordinate.

## Factor of Financial Resources Allocation

One of the conflict factors between the central and local government in terms of the supply and operation of area wide transport facilities is the supply and allocation of funds.

The Special Act on Area Wide Transportation Management prescribes the state and local government both bear 50% for area wide roads, area wide railroads the state 75% and local government 25%, and for transfer facilities and public parking the state 30% and local governance 70%. The intention for the introduction of matching funds to the establishment of area wide traffic facilities is to induce financial resource allocation investing in traffic facilities for a specific region as well as unburdening the central government.

However, some local governments have previously delayed project management for national projects as a way to evade finance sharing by the matching funds for railroad construction. As the railroad construction project in particular is large in scale, construction is being delayed in account of financial conditions of the government and civil complaints of residents near roadsides, even though the state provides 75% financial support.

As the need for area wide road construction is due to the continuous increase of automobile use and a rising demand for area wide railway construction and the railway connecting project between South and North Korea among others, difficulties are expected to supply sufficient investment to cover this huge amount of project costs, even though at present the area wide transport facility account is set at 3% to 6% according to the Act on Special Accounts for Transport Facilities.

For example, according to the Five-year Plan for the Second Capital Region Area Wide Transportation (2004-2008) the estimated total financial resources during the planning period cost 6.5 trillion won, 1.4 trillion won to improve the area wide roads (bottle roads), 4.8 trillion won to expand area wide railways, about 32,000 billion won to expand transfer facilities and public parking garages. Among them, the contribution of local governments is 700 billion won for area wide roads, one trillion won for area wide railroads, and 220 billion won for transfer facilities. When local governments did not share finances in a timely manner the advancement of the area wide transport plan suffered a setback, extending the construction period of the transport facilities. This is an example for involving a conflict factor of financial resources sharing between the central and the local governments.

## Factor of Behavior of Government Agencies

In connection with the supply and operation of area wide transport facilities the central government attempts a self-defensive or passive approach, whereas the local governments tend to stick more to concerns of civil complaints and

local interests. The area wide transport facilities in particular need technical and financial professionalism since they take large-scale finance investments requiring a long-term period of construction and operation.

However, government officials charged with their supply and operation often suffer from deficits in project continuity and lack of professionalism due to their assignment circulation of a work position for the personnel management. For this reason plans and policies concerning the supply and operation of transport facilities have sometimes lost innovativeness and responsibility, generally relying on outside contractors. Occasionally issues like the scale, installation time, or financial scale generate distrust between the central and the local governments.

## Factor of Community Participation

Road and rail construction projects are frequently delayed or abolished if civil complaints arise in the supply and operation of area wide transport facilities. There is a tendency that particularly local governments frequently do not supply or operate them on schedule due to conflicts of interest with residents according to a local government's lack of capacities for mediation and response. This stems from the lack of procedures and processes, with which opinions of residents or groups influenced directly by a policy or a plan concerning area wide transport facilities, currently excluded from decision makings processes, can be converged. Some examples for a representative conflict between the government and residents in the construction of roads and railways can be found in a mountain tunnel in the beltway around Seoul, Geumjeong Mountain Tunnel for the Gyeongju section of Seoul-Busan high-speed railway, and Seongnam and Jangji sections of a road.

In the past, public representatives have decided policies of the central and local governments based on representative democracy, but sometimes did not properly carry out their roles and responsibilities as a representative body. Recently there is a consequent tendency that an institutional device is

provided for the people to actively participate in policy decisions following an emphasized participatory democracy.

Korea aims at securing equity, transparency, reliability, and protecting rights as well as interests of the people by encouraging them to participate in administration by means of the enactment of Administrative Procedure Act and the regulation of common matters concerning administrative procedures. Additionally the way for community participation is being paved through holding public hearings on matters of the people's interest, such as the National Land Planning and Utilization Act.

## 03

### **Some Measures to Strengthen a Cooperation System of the Supply and Operation of Transport Facilities**

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#### **Strengthening of Conflict Prevention and a Cooperation System**

Above we have considered conflict factors by dividing them into related legal systems, organizations, financial resources sharing, behavior of government agencies, and community participation in connection with the supply and management of area wide transport facilities. It is necessary to create a cooperation system broadly based on the whole governance, including state, market, civil society, and so on, providing clear role sharing and consensus formation of the central and local governments in order to reduce exhaustive and oppositional conflicts generated in the supply and operation of transport facilities.

Recently the participation and cooperation of interested parties in the process of policy decision making and planning of the government is being emphasized, applying several theories of governance. A theory of governance

states that relationships among state, market, and civil society exist and so an alternative system of government and administration is well established, which moves away from the government- or market-driven system through increased participation of civil society particularly in the process of planning and decision making.

The governance theory can be also applied to the supply and operation of area wide transport facilities. It is urgently required to break away from forms of centralized government and construct a cooperative system, in which the local governments, residents, companies, civil organizations, and professional associations are acknowledged as partners allowing the free exchange of information, knowledge, and technologies.

In particular, the relationship between the central and local governments are rather as ones in which the local governments provide information about current status and problems of relevant regions as well as resident's requirements. Whereas the central government provides administrative, financial, and technological support in the supply and operation of area wide interests, rather than as control and supervision managers to subordinates. Recently, the Alternative Dispute Resolution (ARD) is a means to solve issues of conflict between the public and the private sector presenting solutions by mutual agreement by participation of parties interested, because problem causing conflicts are frequently intricately intertwined with interests.

Also in the supply and operation of area wide transport facilities an emphasis will have to be put on preventative protection against conflict issues rather than ex-post access through prioritizing of related businesses, legal assistance sharing responsibility of organizations, active attitudes based on trust relationships among organizations, reasonable supply and sharing of financial resources, and community participation from the conceptual stage of planning, based on the establishment of a collaborative relationship between the central and local governments.

In particular, problems arising in the course of the supply and operation of transport facilities seem to be deepening conflicts, due to their complicated issues and the mounting dissatisfaction and frustration of stakeholders and

civil complaints due to the constraints of their participation in the conception stage of planning. Besides it is a fact that decisive handling of the central and local governments is being weakened on account of the lack of their institutional competence and devices in dealing with such conflicts. Therefore, we will have to consider a measure to establish a collaborative process, consensus building, and stakeholder dialogue in order to supply and operate smoothly area wide transport facilities.

## Improvement in Related Laws and Systems

There is a need to amend the laws related to the supply and operation of area wide transport facilities and to clarify target, projects, regions, sections, and so forth. For example, when a plan for improving area wide traffic is established, it is practically impossible to analyze current traffic status with a limited time and expanse, for 40 km radius from the boundary of the project site which includes 70-80% of the Seoul metropolitan area. Thus, the practicable setup of spatial scope is required.

What is recently being discussed in terms of decentralization is the reestablishment of authorities and works distributed between the central and local governments. Methods, such as transfer of the central government's functions to the local government, delegation, private sector transfer, and outsourcing are introduced based on efficiency, equity, and responsibility. It is also required to institutionalize decentralization in the supply and operation of area wide transport facilities as the forms of involvement in a local government, the central government is moving away from individual supervision and switching to the comprehensive involvement. The forms of involvement can be distinguished into power and non-power involvement. The former includes permission, approval, consent, inspection, and corrective order, whereas the latter briefing, council, support, coordination, and information offering, respectively.

It is also necessary to protect rights of both parties and to make rules

in order to improve rights and interests of the residents by rationalization of function distribution in relation to area wide transport facilities and to prevent conflicts in advance by moving away from the perception that the local governments are objects of the central government's supervision and control thereby acknowledging as cooperation partners in the central and local relations. To do so, the source of responsibility must be made clear and elastic with negotiability founded by clarifying function distribution by means of introduction of a prior consultation system between the central and local governments and between higher-level and lower-level local governments concerning the supply and operation of area wide transport facilities.

## Strengthen of Organizational Capacities

The central government will have to strengthen coordination capacity, and the local government to improve capacity of negotiation and implementation in the distribution of authority and work of both organs of government. Relationships between central and local governments can be divided into the agency, companion, and interdependence models. The interdependence model in particular stresses that the central government maintains a large framework for the supply and operation of area wide transport facilities and minimizes interference in local governments.

For developed countries, relationships between central and local governments have changed from vertical to horizontal. The role of the central government as a coordinator and co-worker is strengthened by interdependency. It will also be desirable to solve conflict issues through periodic activation of think tanks concerning important pending issues related to area wide transport facilities between local governments.

Meanwhile some organization models about the supply and operation of area wide facilities at the central government level have been examined. These organization models can be classified into central government-driven type, joint participation type of central and local governments, and association type

of local governments. An example for the central government-driven type is a Tokyo office of transport department of the Ministry of Land, Infrastructure, Transport, and Tourism of Japan which administer metropolitan transport system such as urban railways, buses, and the like. A joint participation type is seen through which public transport is managed in Paris metropolitan area in France, and an association type is seen in Washington, D.C. in the United States.

Joint participation type or association type of local governments is desirable as the organizational model is suitable for Korea over the central government-driven type.

## Improvement in Sharing Method of Financial Resources

Supply and sharing of financial resources can be seen as the greatest factor causing conflicts between central and local governments in the supply and operation of area wide transport facilities. The Special Act on Area Wide Transportation Management states that to area wide roads the state bears 50% financial burden with local governments the remaining 50%, with area wide railways the state 75%, local governments 25%. In many cases local governments do not pay matching funds depending on their financial conditions, for a large-scale finance requirement is needed for the installation of area wide transport facilities.

Sometimes local governments with a low fiscal self-reliance ratio do not provide a planned supply of traffic facilities, avoid installing area wide transport facilities, or defer it toward the central government. Local governments have smaller financial burdens of area wide transport investment because the weight of national and local tax, budget, and expenditure is concentrated by the central government in allocation of financial resources between local governments. Therefore, rationalization of funds supply and optimization of cost sharing between central and local governments will have to be sought through adjustment of allocation of national and local

taxes between both governments in the supply and operation of area wide transport facilities.

## Change in Behaviors of Government Organizations

The central or local government which takes charge of the supply and operation of area wide transport facilities has authority but insufficient expertise. They also frequently lack in converging a variety of opinions due to authoritarianism and nepotism. A change in perception by public officials is necessary to overcome this. The job assignment circulation system in the government personnel management need to be improved and staff given regular job training in order to obtain professionalism related to transport facilities.

## Improvement of Community Participation Method

On many occasions area wide transport facility projects were delayed or abolished due to civil complaints and protests in the supply and operation of these facilities. This is because residents' opinions and needs were not properly reflected as their participation in the decision making process was limited, even while they were directly influenced by project outcomes. Their collective demonstrations and in particular obstructing construction can extend construction periods increasing construction costs.

Therefore it is necessary to have procedures and steps through which the needs and requirements of interested parties like residents are converged by holding public hearings, public exhibitions, and briefing sessions thereby providing sufficient information. Efforts to reach a consensus are also required through mediation by civil society organizations of the relevant areas in order to resolve conflicts between government and residents.

# 04

## Policy Proposals and Conclusions

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The purpose of this study was to seek ways to strengthen a cooperation system between central and local governments in activating the supply and operation of metropolitan traffic facilities. To do this, we analyzed some current situations and their issues, constructed a literature review and observed case studies, drew policy implications, analyzed conflict factors between central and local governments, and presented measures for improvement.

We have sought measures for resolving conflicts generated from the supply and operation of area wide transport facilities, divided conflict factors into relevant laws and institutions, organizations, financial resources sharing, behaviors of government agencies, and community participation. We have made it clear that it is necessary to create a cooperative system based on role sharing and consensus formation between central and local governments from the perspective of governance including state, market, and civil society in order to improve exhaustive and oppositional conflicts generated in the supply and operation of transport facilities.

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## PART II



# Case Studies on Public Conflict Management Stories of the Seoul Bus Reform and Its Conflict Management



A graphic element consisting of several curved arrows in shades of green and yellow, radiating from the bottom left towards the top right, creating a sense of movement and flow.

SONG Seok-Hwi  
Professor, University of Seoul

KIM Gyeng Chul  
President, The Korea Transport Institute





## Introduction:

# Public Opinion on Seoul City Buses



## 01

### **Seoul City Buses Before July 1, 2004**

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What do the residents of Seoul think about their cities' transport system? Do they like the subway, even if it is not direct? Do they use taxis, even if it is more expensive? Do they use their own car, even if they are worried about finding parking spots? Undoubtedly buses in Seoul have been one of the representative public transport means along with the subway. However, if the public of Seoul was asked whether prefer buses over other modes, most of them would probably show an indifferent reaction.

Regardless of age or sex, residents who have experienced city buses will have more unpleasant memories than faint nostalgia, such as endless waiting due to uneven operation intervals, rude bus drivers, honking of horns from gridlocked traffic, bus routes that appeared suddenly and later disappeared depending on the whim of city bus companies, long-distance bus lines that turned aimlessly and situations where people had to run in order to catch a bus since they stopped indiscriminately near bus stations.

# 02

## Seoul City Buses After July 1, 2004

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After July 1, 2004, Seoul City buses have undergone revolutionary changes. These fundamental changes included qualitative improvements in routes, operation systems, bus facilities, and drivers' services beyond minor changes like a reorganization of particular routes or improvements in bus facilities. What reactions would the public show, if we asked them about Seoul City bus services one year after these fundamental changes? Do they still need to run in order to board an arriving bus? Do they still stand guard at bus stops due to uneven operation intervals? Do they still feel treated as a piece of luggage by the drivers of Seoul buses?

Are bus drivers still driving wildly, entwined with taxis or private cars while honking their horns? Are all bus routes still long-distance? If current residents of Seoul are asked these questions again, do they still show a dismissive reaction to this form of public transport?

This book will introduce the major changes and promotion of the Seoul bus reform in order to deepen your understanding about it and to help you better judge the questions that have been raised above.

Along with introducing the reform, there is something that must be reflected upon; how the reform was promoted without serious social conflict. It is very common to see great conflicts when public policies are promoted. So what are the strategies that can be carried out without serious social conflict by the public or stakeholders, whose interests are deeply intertwined, while reforming the bus system? The authors hope is to introduce the Seoul bus reform in the form of a case study to showcase some of the actions that have taken place.

# The 1960s

At the time of national independence in 1945, automobiles in Korea amounted to a total of 7,326 units. Even though buses accounted for 1,156 of these, buses that were actually operable amounted to only 10 units. In those days buses were shaped closer to a carriage than a bus and played the role of assisting streetcars. During the Korean War in the 1950's, most automobiles were destructed and there were difficulties in utilizing U.S. military buses. Nevertheless, peaking in 1956, buses began to exceed the number of average number of streetcar passengers per day and became the leading means of public transport in Seoul.

In November, 1961, 16 seater diesel omnibuses appeared for the first time operating in the area between Seoul Station and Cheonho Neighborhood. From 1962, Seoul City appointed 26 dispatchers who controlled and supervised the customer service of drivers and conductors, the allocation time of each route, and also the improvement of bus services. Since the beginning of 1963, about 1,100 city buses on 41 bus routes have operated. From August 1966, paying in cash for a ride was prohibited as a mileage ticket system for buses and omnibuses was conducted. The bus fares were 8 KRW for rides covering one section, 10 KRW for two sections, and 12 KRW for three sections. The bus fare for students was 5 KRW, further discounted tickets for students cost 4.5 KRW, and the fee for omnibuses was 15 KRW. When the streetcar electricity grid was removed in 1964, the day foreshadowed widespread usage of buses as the transit choice of the public.



Figure 2.1 Diesel engine bus first made in 1968



## Leading to the Seoul Bus Reform



The Seoul bus system was a target of criticism for years. A reason can be found in the fact that it did not properly perform the most fundamental function as a transport means ‘for the public.’ Up until 2004, various attempts to resolve the pending problems of the city bus network were mostly temporary measures, thereby only exasperating the problem. The problems of the Seoul bus system could not be solved through only piecemeal solutions (Ddanzi Consumer Protection Board, July 2004).

Most of the bus reform projects promoted up to that point were aimed at normalizing the repeated bus strikes. The bus fare was raised as requested by the bus companies and qualitative improvement of the services as a result of the fare increase was promised. But this can be seen as a temporary fix, yet consistently applied countermeasure for justifying an increased bus fare, making an expectation that the public bus services would improve with a fare increase on the residents who had to shoulder it (Ddanzi Consumer Protection Board, July 2004).

In this process bus services only worsened. Dispatch time intervals and the problem of hastily stopping at bus stops remained unchanged. The acrobatic and rough driving style of bus drivers were carved in the consciousness of the public as one of the main factors exacerbating the traffic problems of Seoul. A variety of problems appeared with Seoul’s buses and only became more defined with time.

The dysfunction and lack of public buses provides numerous implications

# 01

## External Factors that Made the Reform Inevitable

### Seoul's Transport Holding Capacity Reached a Supersaturated State

When seen through the transport infrastructure of Seoul today, the transport holding capacity of Seoul is estimated at two million vehicles. But the number of cars in Seoul was at 2.80 million as of November 2004, and 3.15 million vehicles daily enter and exit Seoul City from the Seoul metropolitan area. With about 4.37 million vehicles in operation, Seoul's transport can be said to be in a supersaturated state (Seoul City Transport Bureau, 2004).

### A Necessity of Energy-Saving Transport Policy as a Result of High Oil Prices

The high price of oil has become a reason why the need for building an energy-focused urban policy, especially a transport policy, has spread throughout the world. Most of the consumed energy depends on imports. However Seoul has shown a tendency that the ratio of private passenger cars, especially mid-size cars is continuously increasing.

According to 1997 statistics, mid and full-size passenger cars of 1500 cc or more are approaching 50% of total private passenger cars (Table 2.1). Korea is faced with a situation, where the pattern of consumption must be

changed into an energy efficient one (KIM Gyeng Chul, 2001).

**Table 2.1** Increasing size trend of Seoul's passenger cars

Types	Number of routes	Bus units
1989	76%	24%
1990	69%	31%
1991	66%	34%
1992	62%	38%
1993	62%	38%
1994	60%	40%
1995	57%	43%
1996	54%	46%
1997	52%	48%

Source: KIM Gyeng Chul, *Urban Policy and Lessons of Curitiba City: A City of Hope*, 2001. 11.

## Raising ‘Physical Accessibility’ for Socially Disadvantaged Groups

The aspect of the transport policy that affect weaker social groups, such as the elderly, children or those in the low income bracket, for whom the use of cars is inconvenient or impossible, must be taken in consideration. As such that became one of the factors that brought around the Seoul bus reform (KIM Kwang Sik, 2005). The transport reform, especially the bus reform as a measure to raise city accessibility for socially weaker groups and allow them to smoothly adapt to social life along with the environmental improvement of underdeveloped areas, can also be seen in the case of the Portuguese in Brazil (KIM Taek Hyon, 2002).

Their bus reform overhauled the city’s underdeveloped areas, including those living in rural or disadvantaged communities, improving ‘physical accessibility’ to enable these social groups to access other areas more readily.

## Deterioration of Buses and Related Facilities

The upkeep of buses and bus-related facilities is one of the basic elements in providing better services for bus passengers, and constitutes an external factor that promoted the bus reform. In reality Seoul bus companies did not invest in maintaining deteriorating buses and facilities due to the continuous worsening of their financial difficulties. As a result travel speed declined annually and the public trust in the punctuality of the buses has been lost. It has degenerated to a transport means ostracized by residents. The profitability of these neglected buses was growing worse and thereby investments in bus replacement and bus-related facilities worsened. This vicious cycle damaged the deficit-ridden bus operation thereby making it impossible to invest in bus replacement and bus-related facilities. The failure of these investments had been the main cause of deteriorated buses and bus facilities (KIM Kwang Sik, 2005).

## Demand Management of Personal Passenger Cars in Terms of Atmospheric Environment

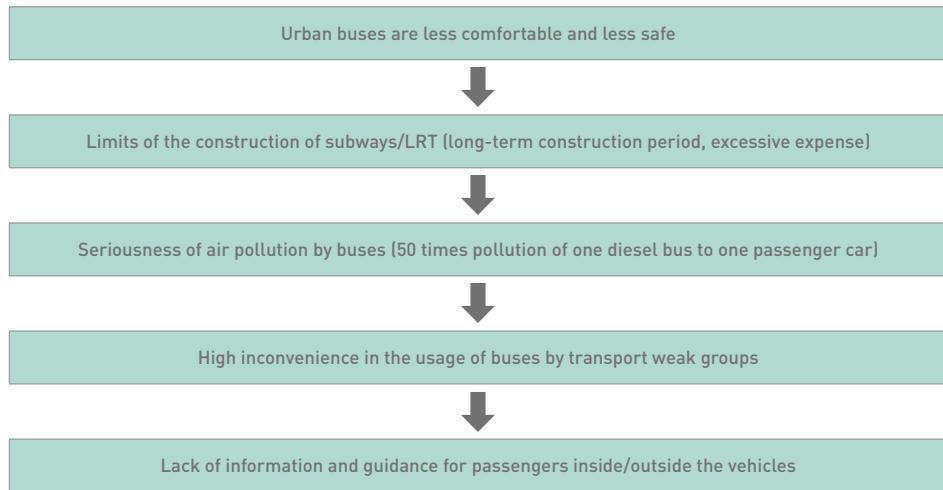
Seoul was noted to be the city with the second highest level of air pollution in the world. In reflection of this, the frequency of issuing ozone warning in Seoul is rapidly increasing year after year (KIM Gyeng Chul, 2001). When looking at the frequency of ozone warning issued by Seoul, they have sharply increased from only four times in 1994 to 41 times in 1999.

Concern for the environment promotes the development of a sustainable yet comfortable society. The transport sector can be no exception. Seoul's transport air pollution occupies more than 87% of air pollution as a whole. The CO, NOx, and VOC that private passenger cars emit exceed 60% of emissions (KIM Gyeng Chul, 2001).

A need for the bus reform has been raised as passenger cars occupy a great deal of air pollutant emissions and therefore must be curbed so that a

comfortable and sustainable urban environment might be created through the reduction of emissions.

**Table 2.2** Problems of the existing bus transport system



## 02

### **Internal Factors that Made the Reform Inevitable**

#### **Continuous Decline of the Transport Share Ratio**

When Seoul's travel demand is considered in terms of each transport means, the transport share ratio of buses has continuously fallen. In 1996 the buses had a share ratio of 30.1%, while the subway had 29.4% and passenger cars 24.6%. Whereas in 2002 the share ratio of buses fell to 26.0%, the subway increased its share to 34.6% and 26.9% used passenger cars. In six years the transport share ratio of buses fell from the most used to the least.

The proportion of public transport encountered minuscule change going from 59.5% in 1996 to 60.6% in 2002. Most transport is being encroached

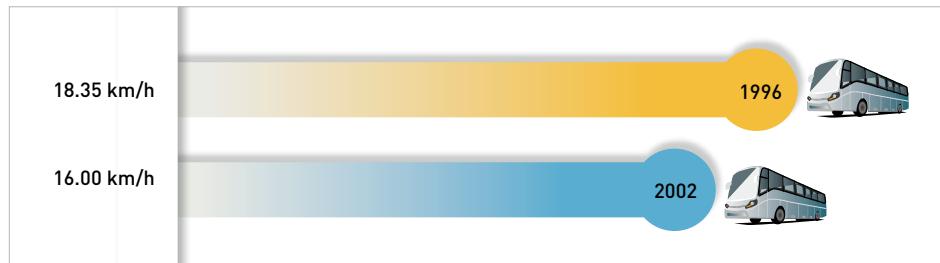
by passenger vehicles, with ‘single occupancy cars’ among them (Seoul City Transport Bureau, 2004).<sup>11</sup>

## Decline in the Quality of Bus Services

The quality of bus services viewed from the perspective of the bus speed has declined continuously. The average travel speed of buses in 1996 was 18.35 km/h per hour, and then fell to an average 16.00 km/h in 2002; a decrease of 13% occurred during that six year period (Figure 2.2).

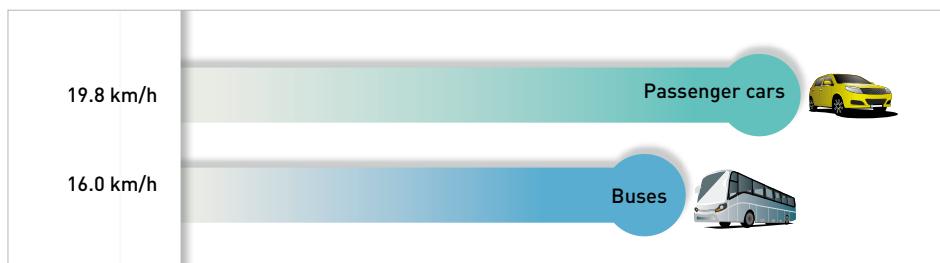
The average speed decrease of buses can be more clearly observed when compared to passenger cars. The average travel speed of passenger cars in 2002 was 19.8 km/h, whereas buses were 16 km/h (Figure 2.3).

**Figure 2.2** Changes in the average travel speed of Seoul buses



Source: Seoul City, *Installation Plan (draft) for Median Exclusive Bus Lanes*, 2003. 12.

**Figure 2.3** Average travel speed of passenger cars and buses in 2002



Source: Seoul City, *Installation Plan (draft) for Median Exclusive Bus Lanes*, 2003. 12.

## Obstruction of Public Function and Popularity of Bus Routes Due to Their Privatization

If the bus will maintain its core function as a means of public transport, bus routes must be used more flexibly depending on changes in traffic demand due to urban management policy or changes in the traffic pattern of consumers. Hence, the use, operation and adjustment of the bus routes show characteristics of public benefit from the point of view that they must be utilized rationally and efficiently in terms of the transport policy for the entire city, rather than in terms of profitability of the bus companies.

However, despite the public and popular nature of bus routes, most of the Seoul bus routes before the bus reform were recognized as private property owned by the bus companies. From this reason they were adjusted and maintained not by Seoul residents as the main customers or Seoul City as the subject of transport policy making, but by the route operators themselves.

The privatization of the routes made them focus their interest only in the so-called “golden routes” and resulted in the harmful effect of limiting the right to bus access, while profitless routes, which have more immediate demand for buses, were being neglected. Additionally, an inefficient bus operation exerted negative effects on the transport operation system of the whole city and led to the development of social problems; such as creating specific regions where sometimes socially disadvantaged groups had to undergo relative inconveniences to obtain access to buses.

## Filling a Bottomless Pit with Water: Seoul’s Increasing Financial Subsidy for the Bus Companies

Seoul’s policy of financial subsidy payments for city buses can be said to be the last resort to maintain bus operation as an important axis of the city’s public transport means. But this payment policy has become a subject of constant debate due to the following two reasons.

First, the size of financial subsidy the city provides to bus companies increased over time despite a lack of improvements in bus services. This increasing subsidy was consistently an object of concern since the financial resources were collected from the public by way of taxes.

Second, the accounting practices of bus companies that received financial subsidies from Seoul were not transparent. It became a factor that made subsidy payments controversial.

## 03

### Net Reform Benefits

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An important consideration of the external and internal factors that made the bus reform inevitable, are the practical benefits that it would bring. A good effort or a good reform, no matter how good it is, is often worse than putting forth no effort if the reform falls short of intended results or policy goals or brings entirely different results. The efforts to improve the public transport system through the reform have two practical economic benefits.

First, these efforts can have a greater effect with a lower cost compared to the efforts required to improve subways or other public transport means. The costs to initialize the reform are very small compared to the costs of constructing subway lines or the improvement of subway operating systems.

For example, subway construction not only takes several years, but also costs about 130 billion KRW per km. According to an analysis conducted, the increase in transport capacity that subways may carry as a result of construction is not significant (Seoul City Transport Bureau, 2004).

The improvement-investment ratio in the bus transport system is relatively superior compared to the investment in subways. Curitiba City in Brazil also put the priority of policy on improving the bus transport system rather than subway construction (KIM Il Tae, KIM Gyeng Chul, 2001).

The effect of improving Curitiba's bus-focused reorganization of the

transport system was found through evaluation to be beyond expectations. For example, curbs on the entry of private passenger cars into city centers have resulted in a decrease in air pollution due to a decrease in traffic volume and a decrease in idling of cars. Also due to the urban transport being reorganized into a public transport system, the transport share for buses raised to 75 percent. In addition, energy consumption was lowered and socio-economic effects were achieved. Overall the bus reform had great effects with low investment compared to the cost of subway construction.<sup>21</sup>

The effects of restructuring Curitiba's bus-focused transport system were specifically featured by the Times. According to the article, Curitiba's bus transport system is 300 times more effective than the New York Subway in terms of operating cost and efficiency. The buses were introduced as a low investment urban transport policy as the buses are not only low on energy consumption, so that they account for about 1/30 – 1/50 of the energy consumption compared to personal cars, but also need a lower investment compared to subways, so that their costs amount to about 1/80 of that of the construction of subways (Seoul's internal documents, KIM Il Tae).

Aside of that, the system also has the advantage of being able to provide greater effects with less cost, for the main contents of this bus reform does not emphasize supply management, such as road expansion or improving road facilities, but rather focuses on demand management. The aggregate demand management is especially taken in consideration, as improving the quality of bus services through bus route adjustment and improving the bus operation system, by grasping the public demand of buses in each region and improving the connection of the buses with other public transport means, especially subways.

For reference, a 1% increase in road length costs about 3 trillion KRW (Seoul City Transport Bureau, 2004), whereas the traffic improvement effect may disappear the next day. Viewed from this fact, the aggregate demand management policy enforced at this time can be said to be more effective as a transport policy than the supply policy.

Second, the advantage has something to do with the elasticity with bus

routes (KIM Kwang Sik, 2005). Buses have a flexibility that can be utilized elastically not only to regional, hierarchical changes in demand but also in the transport policy in each city, for example due to environmental changes.

The elasticity of bus routes is one of the features that stand out when compared to subways. This is because subway routes are virtually impossible to be adjusted to changes in demand or environment. Subway lines established in the construction stage are inelastic to those changes except methods, such as a line extension or the linkage of one line to another. Conversely, bus routes can be utilized more elastically and adapt to changes in demand or environment and to the transport policies in each region or city. In this way they not only complement the inelasticity of subway lines, but also take the role of completing Seoul's public transport network in connect regions beyond the subway networks.

Seoul buses especially help to complete the city public transport network through the establishment of their connecting network with subways, as well as the establishment of a linkage system between main and branch route buses. Furthermore, they take a role in completing the metropolitan transport network with surrounding areas, including Seoul by being part of a metropolitan bus system network.

## 04

### Related Overseas Case Studies

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There are numerous cases where a bus reform is already promoted by various countries putting emphasis on the value of an environmentally friendly city along with several other practical benefits that a bus reform provides (KIM Taek Hyeon, 2002; KIM Gyeng Chul, 2001; KIM Il Tae, Seoul Metropolis, Seoul Development Institute, 2003). Bus-focused public transport systems are being utilized in 42 regions worldwide with another 47 under



Figure 2.4 Bus information system in overseas bus lanes



Figure 2.5 Bus information system equipment installed in the front of a bus



Figure 2.6 BRT stations with horizontal entrances/exits and screen doors



Figure 2.7 BRT station fare gates



Figure 2.8 BRT stations

development (Seoul Metropolis, Seoul Development Institute, 2003). These cases of a bus reform can be somewhat different from Seoul's bus reform in that they have different causes and backgrounds and have been promoted in accordance with the characteristics of the transport system of each region in

consideration of local conditions. But they have some aspects in common which are as follows.

A public-centered transport system is formed through increasing bus speed and enhancing its reliability by introducing larger capacity buses operated

in exclusive bus lanes. Also, along with the practical economic benefits, the importance of buses as a means of communication between regions and between classes was taken in consideration primarily through a change of public transport perception (Seoul Metropolis, Seoul Development Institute, 2003).

## Bus Reforms of Porto Alegre and Curitiba of Brazil

### Porto Alegre

In February 1989 there was a confrontation between the city government of Porto Alegre and the bus operators. The city considered the transport problem to be critically important. This is because transport is essential to enhance communication with underdeveloped areas and establish a network that connects all these areas. Furthermore it was essential to enhance the city's sanitation, since it could be utilized efficiently to dispose of the waste generated there.

Especially since the city considered public transport to be a very important element in promoting communication between regions and between classes, it made an attempt to increase bus company regulations as a way to achieve it. A collision occurred in the process.

However, Porto Alegre led the bus reform successfully through seeking a rational operation scheme based on the acknowledgement of technical problems that may occur when the city operates the buses by themselves. On that basis Porto Alegre introduced public regulatory mechanisms for the supervision of services of the transport companies.

The city persuaded the companies with measures like the resetting of routes, price consolidation, and the equitable distribution of profits. In this process the city government obtained a certain effect on the improvement of bus facilities, such as that of bus infrastructure and the installation of air conditioning.

The public transport of that city is one of the highest quality transport

systems in Brazil at present. According to a survey, users show a high degree of satisfaction with it. In particular, due to the firm guarantee of companies' income, public transport operators threw away skepticism of the bus reform and were changed into cooperative forces to actively execute city government policy (KIM Taek Hyeon, 2002).

### Curitiba

One of the important keywords of urban culture that the city of Curitiba in Brazil has pursued includes an efficient bus transport system (KIM Gyeng Chul, 2001; KIM Il Tae, The Seoul Metropolis, Seoul Development Institute, 2003).<sup>31</sup> It is called an 'above ground subway', for being just as accurate and speedy as a subway but by using buses on existing road networks. It systematically and efficiently integrates urban spaces.

The city has provided bus users with convenient bus usage, dividing functions by route and dividing again into gray, yellow, green and red buses in order to construct an efficient system. In 1974 the median exclusive bus lane system was introduced. This triple road system, as a 'backflow bus exclusive lane system', where buses operate in the center of the road with cars to their right, is evaluated as one of the most complete public transport systems (KIM Gyeng Chul, 2001).

Another characteristic of the city's bus transport system is the cylindrical station. These cylindrical plastic tube stations were inspired by subway platforms, can protect again rain, and were designed to enable reading. The architecture enables bus riders to use public transit more efficiently and conveniently. An example for this is that bus floor height and station platforms were all constructed at a uniform level to enable disabled passengers to use them more easily (KIM Gyeng Chul, 2001; KIM Il Tae).

It is important that through connecting integrated bus networks, free transfers were made possible and thus the tube-shaped stations are creatively applying the benefits of a subway to the road environment. At the coach terminals one can change a bus linking between zones or a branch line bus. It is



Figure 2.9 Cylindrical tube bus station in Curitiba, Brazil



Figure 2.10 Articulated bus in Curitiba, Brazil

possible to make a switch to any type of bus by paying only for a single ticket. In addition, articulated buses enhance the efficiency and speed of bus services.

In the planning and operation of the integrated transport networks, a management and operation method is adapted in which various agents participate. An example is that Curitiba's integrated transport networks are managed by a public institution called URBS that was established by the city in 1963. But the entities responsible for actual bus operation are private companies (Seoul Metropolis, Seoul Development Institute, 2003).

## Cases for the Bus Reform of Bogotá City, Colombia

Bogotá City, Colombia introduced an advanced bus system using median exclusive bus lanes as part of a project that intended to improve the transport



Figure 2.11 BRT of Bogotá, Columbia

system through prioritization of public transport and the restriction of private passenger cars (Seoul Metropolis, Seoul Development Institute, 2003). Bogotá possessed a transport lack of quality similar to Seoul before the introduction of the advanced bus system. The public

transport means were outdated and inefficient. Average operating speed remained at 10 km/h and private passenger cars reached only 16% of the whole travel capacity yet occupied most of the limited road space.

However, the city was improved to a bus-centered public transport system with the introduction of 40 km exclusive high-speed bus lanes with 57 bus stops and four terminal systems divided into basic stops, intermediate integrated stations, terminals of branch line bus lanes, and a control center. The installation of such facilities was possible through organizing areas of maintenance and parking management. The city's efforts to improve it have brought about the effects of offering a higher standard of life, more diversity, and better travel times while providing consistent bus service.

The advanced bus system promoted by the city has been appraised from various aspects. From the user side travel time decreased 32% and 78% of users evaluated the system as effective. Above this it is appraised to have



Figure 2.12 Transmilenio BRT of Bogotá, Columbia



Figure 2.13 BRT Central Control Office of Bogotá, Columbia

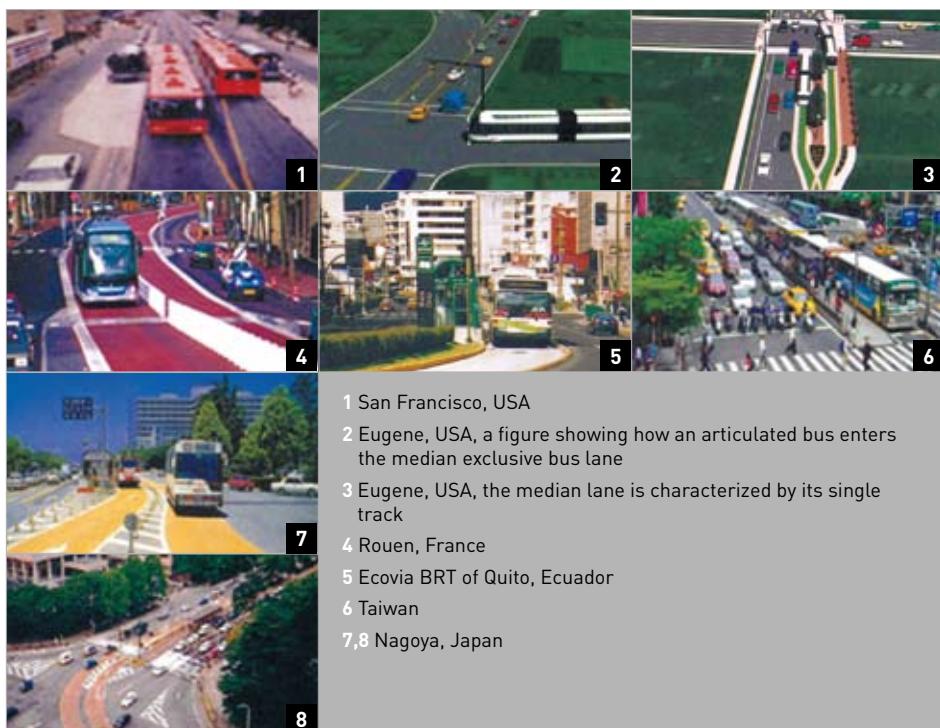
brought about improved air pollution levels as well as a decrease in the number of road collisions (Seoul Metropolis, Seoul Development Institute, 2003).

## Other Cases

An advanced bus-centered transport system is being constructed in Honolulu and Pittsburgh of the United States and already in use in Brisbane and



**Figure 2.14** Overseas articulated buses



**Figure 2.15** Overseas advanced bus transport systems with median exclusive bus lanes

Adelaide in Australia, Tourenne in France, in Branford, Leeds, and Ipswich in the United Kingdom, as well as Kunming in China, Taipei in Taiwan, and Nagoya in Japan (Seoul Metropolis, Seoul Development Institute, 2003; Seoul Metropolis, 2003).

## 05

### Promoting the Seoul Bus Reform

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The Seoul bus reform was enacted on July 1, 2004 and carried out on the basis of long-term planning and research with the full-scaled review beginning in August 2002. It can be said that it is the system was thoroughly prepared over approximately two years.

The Seoul bus reform formed a social consensus as a necessary project through much trial and error experienced while previously reforming the system, but there still remained much concern about future operation. Meanwhile, the urgency and need increased as the third elected Mayor of Seoul issued a mandate. In August 2002, the members of Seoul Development Institute, academic circles, transport specialists, and relevant officials established an implementation action plan for the Seoul bus reform. During the preparation of the reorganization plan, the reform caused friction with stakeholders, such as those in autonomous regions, local residents, bus companies, relevant organizations and the city council.

On July 1, 2003 a proposal was introduced to create a median exclusive bus lane in Mia Street, the main road of the northeast region, as a measure to resolve the predicted congestion due to the Cheonggye Stream Restoration Project. But the attempt was in vain due to the strong opposition of the bus operator industry, local residents, residents of autonomous regions, and local politicians, who were worried that the introduction may shrink the local commercial area.

This incident clearly represented the complexity of problems the Seoul

bus reform had and demonstrated that the old promotion method had problems and limitations. Thus it made Seoul to seek a new method of bus reform and ultimately it provided an opportunity to expand and implement the reform throughout Seoul.

In the City Hall Press Room on June 11, 2003 Seven civil society organizations, such as the Space Cultural Center, Green Transport, the Coalition for Walkable Urban Development, the Green Consumer Network, the Seoul YMCA, and the Citizens' Movement for Environmental Justice, including Citizens' Coalition of Economic Justice, announced their position that the bus reform was a matter of utmost urgency that cannot be continuously deferred. On June 17, 2003 civil society organizations, experts, and stakeholders formally requested Seoul City promote the bus reform with their joint participation to achieve a social consensus.

Seoul accepted the proposal on the basis of the requests by the civil society organizations' and the general aspirations for the bus reform by residents. On June 28, 2003 Seoul City requested a recommendation of the members for a bus reform institution. On August 26, 2003 finally the Bus Reform Public Committee with participation of the stakeholders related to the bus reform, launched,

There were initially 19 full members of the Bus Reform Public Committee. It consisted of four members from civil society organizations, eight members from academic circles and experts, three members from the bus-related industry, and five members from the city council and related institutions.<sup>4)</sup> The committee as a social consent organization opened a forum for public opinion where experts and stakeholders could participate widely. Any problems that might rise in relation with the reorganization of the bus system were deeply discussed and the efforts to provide more practicable alternatives were made.

A tentative plan for the reform was derived on the basis of the alternative practices prepared in the Bus Reform Public Committee. The final draft proposal for the reorganization of a bus system was created through approximately ten consultations of relevant institutions and persuasions for



**Figure 2.16** Seoul and the Seoul Bus Transport Association signed statements on the representation of participating bus companies

the bus industry along with the collection of public opinion at the sectorial hearings on December 15, 2003 and on May 14, 2004.

On February 4, 2004 at the Taepyeong Hall of Seoul City Hall, Seoul Mayor and the Chief of the Seoul Bus Transport Association publically expressed their will to promote the Seoul bus reform by signing the agreement that contained their approval to the bus reform, which included six articles, such as the enforcement of the bidding system for 10 axes of the main road routes and the institutional guarantee of proper business interests, and so on (Table 2.3).

**Table 2.3** Seoul bus reform agreement

#### Agreement

The 57 participating bus operating companies in the Seoul Bus Transport Association have agreed at the extraordinary general meeting held on January 16, 2004 upon this Agreement which is a result of discussions of the Bus Reform Public Committee and reflects the reform plans of the bus routes and their operation system that Seoul City is planning starting from the second half of 2004. They have authorized the Chief of the Seoul Bus Transport Association with the power of attorney to sign the Agreement with Seoul City. Therefore the mayor of Seoul City and the Chief of the Seoul Bus Transport Association agree to execute the following provisions using their best efforts.

\* To prove that this Agreement was concluded the meeting minutes of the extraordinary general meeting of the Seoul Bus Transport Association of January 16, 2004 with the

signatures of the participating companies is attached.

- Below -

1. Enforcement of the bidding system for 10 axes of the main road routes
  - A bidding system will be enforced for 10 axes of the main road routes.
  - In case of bidding Seoul companies will be prioritized, for example by way of awarding Seoul companies extra points for the bidding process.
  - An optimum price tender method will be introduced that takes into account service levels and the bidding price (total cost) to prevent negative effects like low price bidding.
  - The license awarded due to the route bidding process will be limited but will be prolonged if there are no drastic issues.
2. Institutional guarantee of a certain operational profit
  - Legal grounds, as the financial subsidies according to the enforcement regulations of the Passenger Transport Service Act, will be reenacted and regulations about the main and branch route bus operation and its financial subsidies will be regulated by Seoul City ordinances.
  - To guarantee objectivity and fairness expert institutes will be consulted to calculate the adequate transport cost and cost per route per km as well as adequate operational profit. Such numbers will be finalized after a review by the Bus Reform Public Committee but will also consider prior discussions with the bus industry.
  - Agreed transport costs and adequate operational profit will be guaranteed even if the total income by total cost is negative. This will be regulated by ordinances.
  - In case there are changes to the price due to agreed change factors, such as an increase in wages, there shall be an institutional measure to adjust the cost.
3. Adequate compensation in case surplus vehicles occur
  - There will be a resetting of the route system to prevent surplus vehicles. However in occurrence of such cases, such surplus vehicles will be compensated adequately.
4. Measures against debts
  - Existing debts of the bus companies will be resolved by each bus company through reevaluation of its assets, investment, selling of its vehicle storage facilities and parts of its route operation licenses.
  - Within the next five years, in cases of vehicle storage facilities that the bus companies want to sell and that are needed for the bus reform, there will be prioritized buying equivalent to the public procedure for the procurement of administrative assets (real estate).
  - Companies that participate in the Seoul bus reform will consider support through low interest loans (equivalent to the special ordinance grow middle or small businesses and the small merchants of Cheonggye Stream) and will proactively discuss with financial institutions to conclude loan contracts using the city buses as collateral.
5. Existing operational licenses of the 57 companies will only be changed in its operational content and will be otherwise guaranteed
  - To guarantee the existing operation licenses and business licenses of the 57 companies,

the bus system reform will be enforced by changing the operational content.

6. Other

- The details that are needed to execute this agreement will be agreed upon Seoul City and the Seoul Bus Transport Association. However if no agreement can be reached the Bus Reform Public Committee will mediate.

February 4, 2004

Mayor of Seoul

Chief of the Seoul Bus Transport Association

LEE Myung-bak

KIM Jong Won

The bus transport service companies concluded a joint transport agreement in order to further specify the agreement made in the bus-related agreement between the Seoul City and the Seoul Bus Transport Association (Table 2.4).

**Table 2.4 Joint Transport Agreement of the Seoul Bus Transport Association**

**Joint Transport Agreement of the Seoul Bus Transport Association**

Whereas the Mayor of Seoul and the Chief of the Seoul Bus Transport Association have concluded an agreement on February 4, 2004 to diligently execute the reform plans of bus routes and operation system that Seoul City is promoting, the bus companies that have received operation licenses for city buses from Seoul City and agree to jointly manage the operation income as well as other income and conclude a joint operation agreement pursuant to Section 12 of the Passenger Transport Service Act.

- Agreement -

1. To jointly manage the operation income and other income of the Seoul bus companies, the Seoul Bus Transport Association (henceforth referred to as "transport association") shall establish the committee for joint management of operation income (henceforth referred to as "committee").
2. The grounds for the establishment of the company committee and its functions will be regulated by the ordinances of the transport association and the detailed operation methods shall be regulated by a union agreement.
3. The functions of the committee is as follows:
  - a. Joint management of the operation income (distribution of the operation income,

- accounting, management etc.)
- b. Agreement about the operation cost as the cost per kilometer of transport, transport profit, and wages
  - c. Claiming financial subsidies in case the gross transport income is lackluster
  - d. In case there is a surplus of transport income, the surplus shall be saved and such savings shall be used according to agreement
  - e. Details about fuel and other maintenance spare parts that are needed for bus operation shall be agreed upon
  - f. Agreement about finding and using income aside of operational income, as for example advertising revenues
4. The committee shall establish and administer an account for the joint management of transport income and shall book all transport income and expenditure on the account for joint management of transport income [henceforth referred to as "joint management account"].

On July 1, 2004, the reorganization draft of the bus system that was prepared through these promoting processes came into force throughout the entire city of Seoul.

06

**July 1 2004**

The Seoul Bus Reform Project, which came into force on July 1, 2004 can be considered ‘revolutionary’ in comparison with the contents of past bus reforms. The main features that Seoul City has reformed are as follows.

## Reorganization of the Seoul Bus Routes System

The then current bus routes were unreasonable and characterized by bending, long distance, and overlapping routes were reorganized into a dualistic system of trunk and branch routes (Seoul City Transport Bureau, 2004; KIM

Kwang Sik, 2005). The trunk routes of the dual system play a central role in the Seoul transport system, while the branch routes are newly changed into a system of bus routes that have a linkage function organically connecting main routes with subways and branch routes in between.

The reorganization of the bus route system had the main purpose in maximizing the efficiency of route operation by assigning a function of each route thereby removing inefficient and overlapping existing bus routes and activating public transport by strengthening the linkage and complementary function between various public transport means. The bus reform was promoted with the aim of suppressing the use of private passenger cars by creating an expectation amongst residents about the activation of the use of public transport.

The reorganization of the Seoul bus route system was based on the results obtained through various processes. The Seoul Metropolitan Government, in cooperation with the Seoul Development Institute, prepared a reorganization draft on the basis of the demand analysis of different bus routes. The experts and the Bus Reform Public Committee reviewed it through opinion convergence procedures such as the following.

They collected opinions on the reform draft to target the individual bus companies by each area from January to early February 2004. They adjusted the routes through their joint review work from mid-February 2004. Then from mid-March they prepared the final route reorganization draft through briefing sessions and opinion convergence processes by regional groups.

Seoul bus routes were reorganized largely into two forms following principles and procedures of the Seoul bus route reorganization.

Firstly, they were reconstructed into a system of branch line routes that connect trunk line bus stops and subway stations, while circulating through regional transport areas along with the trunk line routes connecting suburbs with the city center, the city center with subcenters and the subcenters among themselves.

The expected results of the route reorganization were to increase the speed and punctuality of the bus operation by installing linearized (median) exclusive bus lanes and to improve convenience linkage and transfer effect

between transport means by introducing a bus system of lot numbered buses.

Secondly, in order to connect the city center with subcenter branch lines have been installed. To allow adequate space for the business and shopping related traffic within the Seoul metropolitan area and city centers, circulation routes were constructed. Furthermore wide area routes were constructed as a measure to absorb the entering and exiting passenger cars,

The history of the route reorganization can be summarized as follows. Before the reorganization there were 255 urban routes (6,644 units), 46 seat-type routes (943 units), and 66 regional circulation routes (559 units). After the reorganization on July 1, 2004 the existing routes were changed into 90 main line routes (2,855 units), 285 branch line routes (4,335 units), 39 wide area line routes (754 units) and 5 circulation routes (40 units). So in total 8,146 Seoul buses covering 285 routes were changed into 7,984 buses over 419 routes (Table 2.5).

**Table 2.5 History of Seoul bus routes reorganization**

Types	Number of routes	Bus units		Types	Proposal to Implement on July 1, 2004	
					Number of routes	Bus units
Urban	255	6,644		Arterial line	90	2,855
Seat-type	46	943		Branch line	285	4,335
Regional circulation	66	559		Wide area	39	754
Total	367	8,146		Circulation	5	40
				Total	419	7,984

Source: Seoul City Transport Bureau, *Understanding of the Reorganization of the Seoul Bus System*, 2004. 11.

This history of the bus route reorganization in terms of the existing routes is as follows. 94 bus routes were newly created, 187 routes were maintained, 29 routes were changed, 37 routes were extended, 72 routes were reduced, and 42 routes were integrated into each other (Table 2.6).

Buses were distinguished into four colors according to its functions, so that residents can recognize the contents of the reorganization more easily. This was reworked in consideration of the urban landscape of Seoul (Table 2.7).

**Table 2.6** Reorganization history of existing Seoul bus routes

Division	Newly created	Maintained	Changed	Extented	Reduced	Integrated	Total
Arterial line	36	18	20	4	12	-	90
Branch line	57	126	9	33	60	-	285
Circulation	1	4	-	-	-	-	5
Wide area	-	39	-	-	-	-	39
Total	84	187	29	37	72	42	419

Source: Seoul City Transport Bureau, *Understanding of the Reorganization of the Seoul Bus System*, 2004. 11.

**Table 2.7** Color classification of Seoul buses

Classification	Colors	
Arterial line buses	Blue	B
Branch line buses	Green	G
Circulation buses	Yellow	Y
Wide area line	Red	R

Source: Seoul City Transport Bureau, *Understanding of the Reorganization of the Seoul Bus System*, 2004. 11.



**Figure 2.17** Color classification of Seoul buses

Also, the numbering system of Seoul city buses were improved to be more simple and systematic by being divided and assigned by district in order to allow identification of operation sections through numbers. This was unlike the existing way, in which numbers were assigned randomly to the individual buses. To create standardization, Seoul was divided into eight districts and on this basis a systematic numbering system could be built. In addition, the suburbs of Seoul were divided into seven areas in order to assign wide area bus numbers systematically (Figure 2.18).



**Figure 2.18** Seoul districts classification map

The numbering system of Seoul buses was improved upon based on the numbering system of each area (Table 2.8).

**Table 2.8** Seoul's bus numbering system

Colors (bus lines)	Number	Numbering system
Blue bus (arterial line route)	Three-digit number	Starting sphere + arrival sphere + one-digit number of the route serial number
Green bus (branch line)	Four-digit number	Starting sphere + arrival sphere + two-digit number of the route serial number
Yellow bus (circulation route)	Two-digit number	Operation sphere number + serial number
Red bus (wide area bus)	Four-digit number	Wide area number + starting sphere (Gyeonggi Province) + two-digit number of the route serial number

Source: Seoul City Transport Bureau, *Understanding of the Reorganization of the Seoul Bus System*, 2004. 11.



Figure 2.19 Seoul bus signs



Figure 2.20 Seoul porte-cochère

## Semi-Public Bus Operation System

One of the most outstanding features of the Seoul bus reform is to make a semi-public bus operation system, in which the bus routes that were owned and operated mainly by individual bus companies in the past, were then returned to the public. This is significant in two respects.

First, it can be seen as a basis for restructuring the bus route system. The right to adjust the routes was changed from individual bus companies to Seoul city and a fundamental change in the bus operation structure itself provides an important foundation for reforming the bus route system.

Second, improving the operating system of Seoul buses through the introduction of the semi-public bus operation system allowed an institutional apparatus to be prepared which could improve the business environment of the bus companies and thus provided an opportunity for them to provide higher quality services. Indeed there have been discussions concerning a complete public bus operation system as one of the improvement measures of the bus operating system, but it has been excluded due to expected

problems, such as inefficiency. Thus, the public participation of the bus operation system was improved but the efficiency of the management techniques of the private sector was sought for and the semi-public operation system was adapted as a useful alternative.

In other words, the route rights Seoul city bus companies had was returned to the public, but a stable bus operation was sought through the joint management of transport revenue (KIM Kwang Sik, 2005). In addition, an evaluation system for bus operation was introduced as a measure to manage transport revenue more transparently and efficiently and to continuously increase the level of bus services.

The work on the enforcement regulations and an ordinance revision of the Passenger Transport Service Act was carried out to provide legal grounds for a semi-public system (Seoul City Transport Bureau, 2004). On February 28, 2004, the enforcement regulations concerning the Passenger Transport Service Act were revised. On May 20 of the same year the legal grounds for the route bid and financial support were introduced, while the ordinance on financial support and limited license of passenger car transport business was revised.

On the other hand, with the enactment of the legal grounds, an agreement to promote the Seoul bus reorganization more actively was concluded between the Seoul Bus Transport Association and Seoul City on February 4, 2004. On this basis the subsequent work was done and four consortia were



Figure 2.21 Articulated bus in Seoul (front)



Figure 2.22 Articulated bus in Seoul (side)



Figure 2.23 Disabled disembarking from an articulated bus in Seoul

selected as bus operators through a bidding process for the 10 trunk line axes, 19 routes, and 726 units (Seoul City Transport Bureau, 2004).

Additionally, a joint transport agreement between the Seoul Bus Transport Association and Seoul was concluded on June 27, 2004. This agreement stated that the revenues were to be managed jointly and distributed on the basis of the cost per vehicle km and on the operation results of each bus company.

## Extended Operation of the Median Exclusive Bus Lane System

Some of the strategies to maximize the effect of the reorganization include the work on moving and installing exclusive bus lanes from roadsides to the middle of a road. The introduction and extended operation of median exclusive bus lanes have a symbolic meaning that the preferential right to use roads was given to buses. Additionally, a practical advantage is that these median exclusive bus lanes maximized the operation effect of buses that now have been changed into public transport means.

It is a system that is extending even in developed cities abroad because of the practical and symbolic meaning of median exclusive bus lanes (Seoul City Transport Bureau, 2004). It was introduced as a useful way to overcome their limitations on roadsides, already installed on



Figure 2.24 Median exclusive bus lane in Seoul (a)

the trunk line roads in Seoul and to ensure a practical effect on the bus reorganization.

The previously installed bus exclusive lanes at roadsides had limitations in increasing the operating speed of the buses due to the entering and exiting of cars on side streets and intersection region zones, where right turns are permitted and so on. In addition to that illegal parking and stops generated at roadsides were countering the original purpose of the introduction of the bus exclusive lanes, which was to activate the use of public transport through improving bus operating speed (KIM Kwang Sik, 2005).

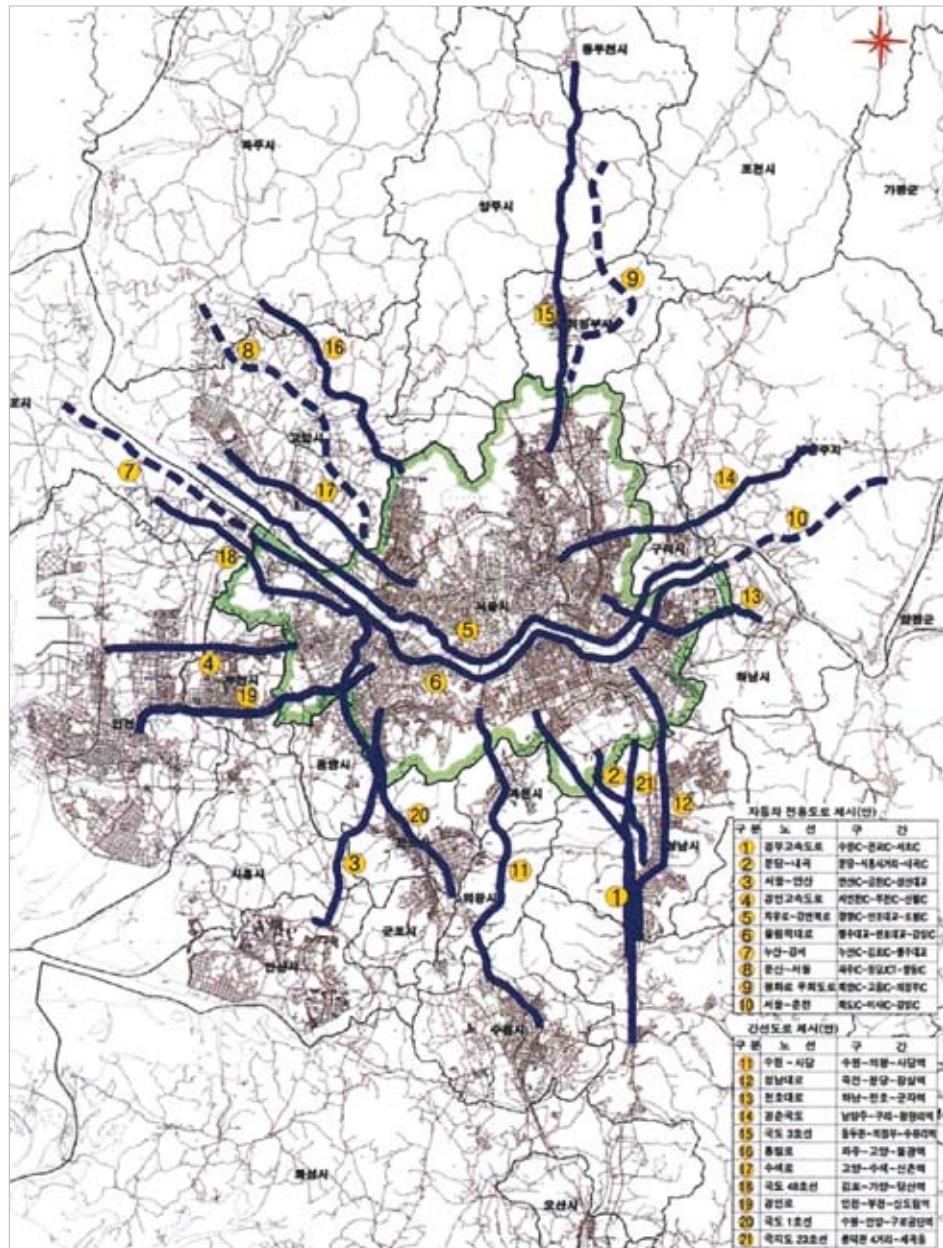
Median exclusive bus lanes are planned to be installed over 170 km comprising of 13 routes of Seoul main branch roads that connect Seoul metropolitan cities in order to ensure the speed, punctuality, and safety of buses by increasing the bus operating speed (Seoul City Transport Bureau, 2004). They were already installed over 27.1 km on three routes: Dobong-Mia Street in the northeastern part of Seoul, Gangnam Highway in the south, and Seongsan-Susack Street in the northwest.



Figure 2.25 Median exclusive bus lane system (b)



Figure 2.26 Passenger waiting areas of a median exclusive bus lane



**Figure 2.27** BRT planning for Seoul and Gyeonggi Province by the Ministry of Land, Infrastructure and Transport

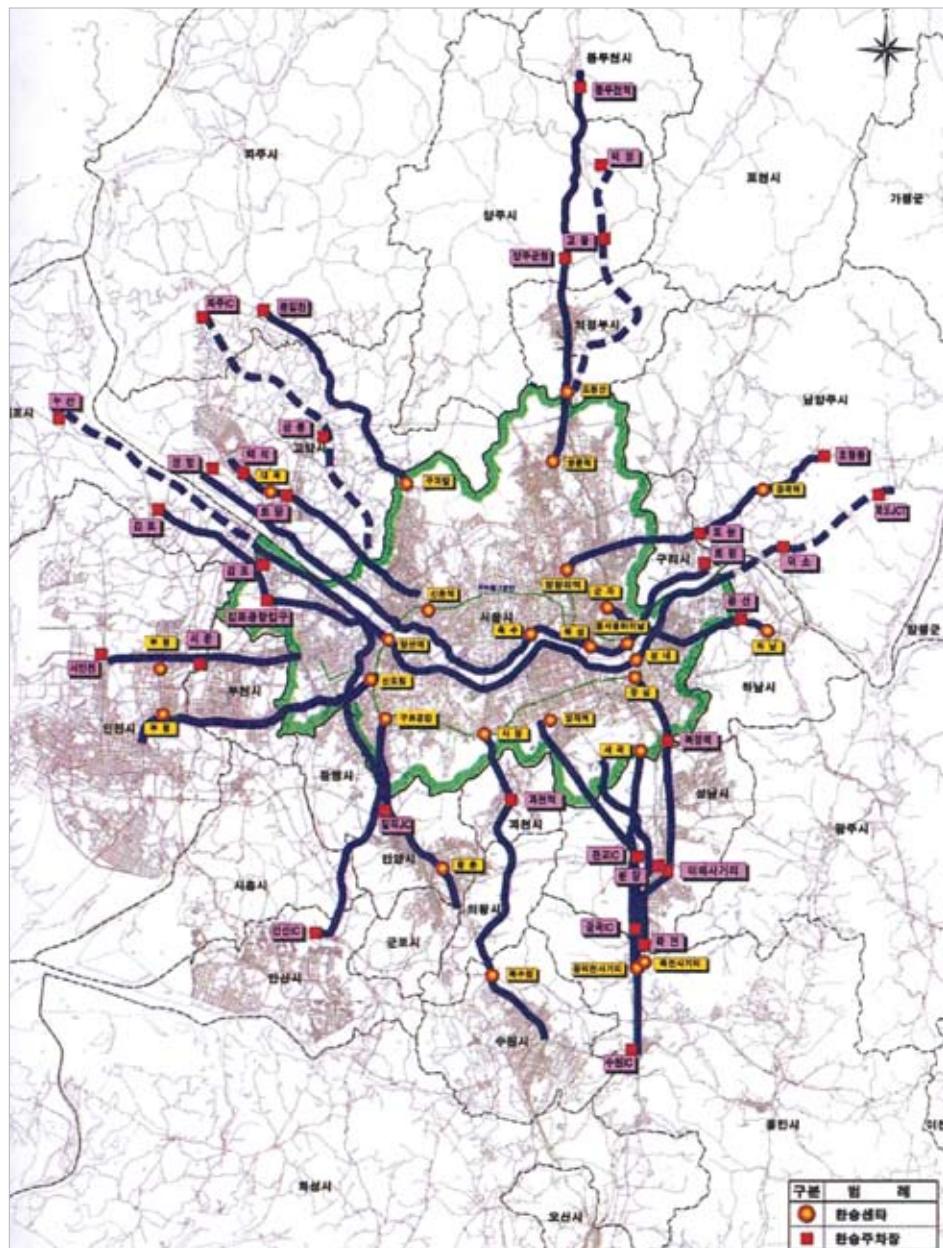


Figure 2.28 BRT transfer center for Seoul and Gyeonggi Province by the Ministry of Land, Infrastructure and Transport

## Reorganization of the Fare Pricing System for Public Transport

In the reorganization of the Seoul transport system, an integrated fare system for the public transport was introduced. This introduction means that the existing system of independent pricing, in which one pays according to the use frequency of transport means, was abandoned and fares are based on the total distance traveled regardless of the transfer frequency of each transport means (Seoul City Transport Bureau, 2004).

The charging principle according to the integrated fare pricing system for public transport consists of a basic fare for a distance of up to 10 km with access to other public transport means without paying any transfer fare. If the traveled distance exceeds 10 km, 100 KRW is added for every additional 5 km. Thus this scheme is not a flat fare, but an integrated distance-based fare pricing system for buses and subways. Transfer between buses is free of charge and there is a discount in the transfer between buses and subways (KIM Kwang Sik, 2005).

Not only the bus fare pricing system, but also the subway fare pricing system was reorganized into a rational system of distance-based fare pricing, as one of the measures to maximize the use of public transport through the linkage between transport means. For subways, the conventional zone pricing system, in which Seoul was divided into seven zones and a basic fare imposed within two zones with 100 KRW added over three zones was removed. The new system is a distance-based fare pricing system like in intercity subway sections. All Seoul metropolitan areas had a unified subway fare covering all lines.

Measures to mitigate the fare increase effects caused by a distance-based system were also jointly enforced. The fares long-distance passengers had born were lowered. To compensate for this the basic distance, to which the basic fare for subway travel was imposed, was adjusted to 12 km which is 2 km longer than the previous 10 km. Furthermore the additional distance unit, to which an additional fare was imposed, was changed from 5 km to 6 km.

The city government lightened fares for long-distance users by applying 12 km as then additional distance unit for travel distances exceeding 42 km (Seoul City Transport Bureau, 2004). With this, various measures were arranged to induce the use of public transport including subways and commuter trains.

## Construction of a New Transport Card System and a Bus Management System

The existing transport card system was obsolescence as its capacity was limited and lacked in comparison to the global standard. It resulted in the urgent need for the introduction of a new transport card system in connection with the reorganization of the public transport system of Seoul (Seoul City Transport Bureau, 2004; KIM Kwang Sik, 2005).

The development of a new transport card system was promoted to solve more than the fundamental problems the obsolescent transport card system had. It was also promoted due to its technical aspects, allowing smooth support for the integrated public transport fare system pricing policy as well as the operation aspect, to contribute to the improvement of public transport services by ensuring management transparency of bus companies.

With its introduction the expansion of the use range was taken in consideration, so that its users even could use the cards for social and cultural functions. This development of the new traffic card system could broaden industry for the public transport card system.



Figure 2.29 Signing ceremony for the Seoul New Transport Card Project



Figure 2.30 Seoul bus cards produced in various forms



Figure 2.31 Bus card scanner attached to Seoul buses

Measures are arranged not only to pursue the convenience of a transport card system, but also to ensure the punctuality of buses and so that passengers waiting at a bus stop may get bus service-related information more easily. The Bus Management System (BMS) collected a variety of information related to bus operation via terminals attached to buses. This not only increases convenience for bus users as this information is provided in real time, but also promotes punctuality of bus operation and offers a preventive effect in regard to unnecessarily offensive driving.

With bus operation-related information collected in this way,



Figure 2.32 Bus Management Department

information useful to the management of bus companies is also provided and basic information can be used effectively to establish a bus policy for Seoul, including a change in bus routes or adjustment of dispatch interval. For these purposes by December



Figure 2.33 Bus arrival information board in a bus stop in Seoul

2003 terminals were installed in 1,429 preferential buses with the first stage construction of the bus management system concluding in August 2004 with 5,000 units installed, predominantly inside trunk line buses. In October 2004 the second stage construction work of the bus management system was continually promoted through installing terminals at the remaining 3,000 buses (Seoul City Transport Bureau, 2004).

## The 1970s

In April 1971, construction began on Seoul Subway Line 1 with a goal of its opening in August 1974. This line ran from Seoul Station through City Hall and Cheongno to Cheongnyangni. It was designed to prepare the beginning of the urban railway era by electrifying railways of the Seoul metropolitan area. In 1978, the transformation in the field of competitive transport bus service began to occur in order to hedge against the rise of urban railway as a competitive transport means. From 1973, the existing bus system changed, while urban buses appeared. In 1974, as major changes occurred in the bus transport, transport administration grew increasingly complex, while urban buses were divided into standing buses and seated buses with the fare and route systems being differentiated.

In the 1970s, when the buses had reigned as the “flower of civil transport,” policies for the bus also changed in various ways. As part of this, while the city was replacing old vehicles, it painted city buses in a consistent way. Urban buses were painted light blue with a beige stripe, while standing buses had a dark blue stripe and seat buses had an orange stripe. In 1978, the bus fare was 50 KRW for adults and 35 KRW for students. Buses in the 1970’s were described as packed like sardines; many people with no personal space. In spite of this evaluation, many positive memories exist as the buses were in the public limelight during this decade. The following memories are typical figures of the 1970s: bus attendants hanging on bus doors that were not closed tightly, passengers rolling side to side as the bus moved, and bus drivers operating jam-packed buses.



Figure 2.34 City buses made in 1971 (left) and in 1974 (right)



## Conflict Studies



Stephenson and Pops claimed that processes of negotiations and discussions in a decision-making process create social phenomena worth of research, regardless of the results that they will bring about (Stephenson & Pops, 1990). From this point of view, the promotion processes of the Seoul bus reform that are evaluated as having passed through a process of participatory discussions also can be seen to have created a variety of social phenomena worthy of research.

One of the main reasons why the need for conflict study has been raised in relation to the bus reform is the high level of interest in the success of it. Aside from the reforms social necessity, many stakeholders were intertwined in complex ways and yet were able to come to an agreement.

In particular, whereas most bus reforms ended in failure, this recently promoted bus reform succeeded in achieving the expected goals in many ways. The satisfaction of both the stakeholders and the public led to a high level of interest<sup>5)</sup> at home and abroad concerning what factors helped resolve the various conflicts raised during the reform.

Thus, this study can provide many suggestions to manage a variety of conflicts that may appear in future urban management.

This study will focus on the following aspects. First, the current trend of general theories about conflicts and conflict management strategies are collected and analyzed against various conflict cases that appeared in the reorganization of the Seoul bus operating system. Through the collection and

analysis of the conflict cases one is able to discover the reasons why conflict emerged in the process of the bus reform.

Through the conflict cases that developed in the process of the reform we will consider the conflict management strategies Seoul Metropolitan Government performed in order to solve the various conflicts. Seoul's view of conflicts will be examined through an analysis of conflict management strategy clarifying their strategy of conflict resolution. Finally, potential conflicts that might be generated in future urban management are presented through the presentation of a conflict management model with guidance on the direction to minimize conflicts that arise.

## 01

# Understanding Conflicts

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## The Concept of Conflict

We experience conflicts in everyday life, whether conscious or unconscious, superficial or significant. It is no exaggeration to say that life itself is a continuation of conflict as we are potentially living with numerous conflicts.

So, how is the conflict like this understood? The concept of conflict is defined in various ways by scholars from various academic disciplines (Schmidt & Kochan). Recently it is being studied not only in psychology but also in sociology (JANG Dong Un, 1997; CHEON Tae Yun, 2001).

Conflict in psychology is understood as the state of “strong motivation by more than two parties that cannot be solved at the same time” (JANG Dong Un, 1997; CHEON Tae Yun, 2001). In psychology the primarily focus is put on the psychological conflicts of individuals. Especially an adaptation process of the individual to society or the phenomena of those with mental health issues are treated with more weight.

Unlike a psychological point of view in sociology, that is interested

primarily in social conflict, conflict is understood as a social phenomenon of struggle “for values and for status, power and scarce resources from the intention of winning the value that opposing sides desires to obtain, at the same time removing, injuring, and defeating opponents (JANG Dong Un, 1997; CHEON Tae Yun, 2001). Simmel, a sociologist, understood conflict as a form of socialization.

Dahrendorf understands a variety of situations as conflicts, defining it more broadly. He understands them, not only as oppositions between various interested forces, but also as all interactions between interested groups having different goals, resulting in quarrels, competition, controversy, and tension.

In this study we will understand the concept of conflict, understood in the following various ways: referring to the definition of the concept of JANG Dong Un, but taking into account the characteristics of the conflicts shown in the bus reform. A conflict is “not only a manifested behavior like competition, controversy and so on, but also a state of psychological perception, such as tension, anger and so on as a dynamic process arising between more than two groups and involving psychological feeling of confrontation and oppositional behavior” (JANG Dong Un, 1997, p. 39).

## The Impact of Conflict: Positive and Negative Effects

The functions of conflict are divided largely into positive functions and dysfunctions. The positive function means the positive role conflict delivers; dysfunction means the negative role (CHEON Dae Yun, 2001; JANG Dong Un, 1997; LEE Dal Gon, 2000).

Assael divided conflicts according to this positive function and dysfunction into constructive and destructive ones. They can be classified into the Marxists model based on Marxian theory and that of functionalists that revolve around Simmel.

In the conflict model viewed from Marxists, they provide no positive values; only negative. Marxists recognize that they must be avoided as much

as possible and their manifesting should be suppressed and that they can be resolved or extinguished through a rational management.

However, functionalists see them as inevitable and show a positive as they can lead to sharing of problem awareness and thereby to a social integration along with problem solving. They argue that conflict management through consultation and public opinion is needed.

Many scholars explain the need for the positive role from the functionalist's standpoint. For example, Assael considers functions, such as review of past behavior, communication, balance of power, and resource allocation, as their positive functions. On the other hand Gluckman argues that the functions they have can be distinguished depending on a social system. He claims that they play the function of social maintenance rather than social division in a society having a flexible social system, while the function of social division is shown in a society having a rigid system.

LEE Dal Gon (2000) points out in Gluckman's claim the degree of receiving or recognizing them is different depending on the social system. He evaluates that they play a mediating role to form new social relations in an open and diversified society and such new relations contribute to social stabilization.

Such a positive function often becomes a factor that can cause social unrest and further bring about a social disruption in a closed and rigid society. Therefore the degree of accepting and recognizing them appears differently depending on the characteristics of the society where they occur (LEE Dal Gon, 2000).

Chung and Megginson highlight the following points as their positive functions among groups: 1) the clarification where the problem is, 2) the promotion of technological innovations, 3) the strengthening of social cohesion, 4) cathartic effect, 5) the consolidation of group relationships. Murphy emphasizes their positive functions in that they make mutual misunderstandings clear and open allowing for lasting conversations. They also improve capabilities of problem recognition and increase job satisfaction.

Furthermore, Durbin puts an emphasis on this function as he believes they allow different psychological needs to be met and changes to be induced. They also break mannerisms, provide information about organizational issues

and offer an opportunity for harmony.

On the other side are scholars who claim that they have dysfunctions as well. According to Szilagyi and Wallace they can have negative effects as a hostile culture between groups can grow, thereby misconceptions about the other parties increase and conversations decrease.

Stoner, Feldman & Amold emphasize their negative aspects as parties in the conflict are always busy seeking their own interests while making the parties indifferent to the entire organization. Additionally they waste time and energy while bringing cost and emotional pain.

Additionally, Murphy points out several negative effects; an increase of distrust between parties, inhibit the flow of information, thoughts and feelings displayed through personal insult. However, such positive or negative functions are to be determined by several factors. According to Stoner's explanation it depends on their levels, their organizational structures and climates or methods of managing them.

There are no determined principles to manage them, but what is desirable as the most ideal is a strategy of conflict management that enhances their positive functions and at the same time minimizes their dysfunctions.

## Characteristics of Conflicts

Conflicts involving positive and negative functions have the following characteristics. Above all they are social when they include more than one party (JANG Dong Un, 2004; CHEON Dae Yoon, 2001; PARK Myeong Hyeon, 2004). It can be said that the number of the parties in conflicts appears to be different depending on their content and type.

Also, they can be seen to appear through one's perception. They hardly exist if there is no perception of tension or opposition towards another present party. Also they can be created if their inter-dependency is present. Especially if the interdependence is higher, their possibility and intensity become higher.

They have characteristics that appear in a complex of contents, forms,

and methods of communication as well as psychological, sensory, and behavioral elements (CHEON Dae Yun, 2001). Forms and methods of conversations with other parties, as well as behaviors and trust about them, belong to the contents dealt with in studies on conflicts (management) in terms of their generation and mitigation.

In addition, the perception of conflict, two or more actors, they request for overall or partial changes, a double sidedness of positive and negative functions, or are general phenomena present in any society are also classified as features (PARK Myeong Hyeon, 2004).

## Types of Conflicts

Effective management of conflicts begins with grasping their type, level and intensity. Such an understanding of their type and form must be taken in consideration of the dimension of conflict management in order to manage them more effectively through the analysis of their causes.

If they are classified depending on the actors that cause them, they can be divided largely into individual conflicts with a group or social conflicts (LEE Dal Gon, 2000; CHEON Dae Yun, 2001). Individual conflicts are generated when individuals pursue several goals or values that are difficult to seek at the same time or the goals each individual pursues are difficult to accomplish with only they means they possess.

On the other hand, group conflicts are social and are generated not only due to different goals and ideas among individuals or groups, but also due to different methods to accomplish a common goal, even if the pursued goals are the same.

Such social conflicts are divided in various forms. Shermerhon divides them into personal, interpersonal, intergroup, and interorganizational while Boulding classifies them into vertical or horizontal from the point of view that they are relationships of exchange.

In addition, according to Caplow social conflicts are divided into predetermined ones that arise from elections or athletics, continuous ones

that can be confirmed in international relations, and terminated ones that are ended through war. March & Simon divide their forms at the level of decision-making into personal, organizational, and interorganizational ones. Coser divides them into real ones, in which one quarrels with other side to obtain a scarce resource, and unreal ones, in which one emphasizes aspects of tension release and self-satisfaction instead of goal attainment or resource acquisition. Pondy understands them as dynamic processes in order to solve a problem that the existing methods do not distinguish between conflicts and conditions prior to them from the beginning stage through that of feeling and manifesting to that of resolution.

Their forms can be explained according to the results they bring; divided into constructive conflicts that bring results, such as problem solving and enhancement of reciprocal understanding or destructive ones that bring only mistrust and tension.

According to the causes of conflict they are divided into factual conflicts arising from a current situation or problem, methodic ones that arise due to differences of the means to an end, and conflicts of goals that come from different long-term goals. Also, the difficulty of conflict solving depends on the causes that generated them.

Their forms are divided according to the criterion of space where they occur. They can be divided largely into social conflicts and governmental conflicts. The former can be generated among individuals and among teams or groups. These are generated mainly due to the crisis of legitimacy or the crisis of social distribution and institutional interests (CHEON Dae Yun, 2001).

However the latter is generated due to authoritative operations, adherence to vested rights, uncertainty of interest adjustment, insufficient self-competence, a complex connection of functions and regional self-centeredness. Especially regarding conflicts in the governmental dimension YAE Kyeong Hee and HONG Yang Hee (1988) explain them through the model of decision-announcement-defense (DAD). Such conflicts are generated due to policy decisions and execution, without the participation of interested groups who have close interest relationships with the relevant policy; DAD.

In addition, Pundy classifies conflicts as the pivot on their progress processes into latent, recognized, felt and manifested conflicts (Pundy, 1967).

## Why do Conflicts Arise?

Stephenson & Pops present potential causes of conflicts that occur in the decision-making process. They can be viewed in value differences of the parties participating in a decision-making process; difference of interests, awareness about resources, and analysis of problems or approaches towards problems or phenomena at hand are considered to be causes (Stephenson & Pops, 1990). The difference of goals that stakeholders pursue or that of interests such as expected financial gains are emphasized as one important determinant of various conflict factors that cause social conflicts (LEE Dal Gon, 2000; CHEON Dae Yun, 2001).<sup>61</sup> LEE Dal Gon explains that one of the various elements that causes conflicts is an aggressive disposition that is inherent in the human mind. He explains further that this aggressive disposition appears in various forms in modern society in accordance with the cultural development of human beings.

One of the other important factors causing them is the ripple effect of public policies that governments plan or promote. This can be understood if the wide range and diversity of ripple effect public policies are taken in consideration. We can confirm that ripple effects were a conflict causing factor in some public policy issues: administrative capital relocation, landfill sites, construction of nuclear power plants, Saemangeum Reclamation Project, construction of nuclear waste processing facilities, and construction of the Cheonseong Mountain Tunnel. For this reason, public policies themselves can be considered to be conflicts in and of themselves (CHEON Dea Yun, 2001; Pavlak, 1990) (Table 2.9).

The causes of the conflicts may be understood in a somewhat different way with respect to academic disciplines (PARK Myeong Hyeon, 2004). For example, from a psychological point of view, they can be seen as a phenomena that is generated due to reaction tendency that cannot be

**Table 2.9** Conflict cases due to public policy

Types	Number of routes	Bus units	Project name	Business outline
Cheonseong Mountain Tunnel for Seoul-Busan high-speed rail	Construction of 13.2 km tunnel through Cheonseong Mountain	Enforcement of existing routes	Habitat destruction of salamanders, monk fasted for 100 days	Construction halted for 12 months, new environmental effects evaluation
Saemangeum Reclamation Project	400 km <sup>2</sup> of aricultural land and freshwater development	Unchangeable modification of business	Destruction of tidelands, low economic feasibility	92% progress tracking, court's judgment on business suspension
Nuclear Power Plant	Construction of radioactive waste disposal facility	Separate construction of high, middle, and low level disposal facilities	Opposition due to environmental concerns	State of drift for 20 years
Construction of New Gori, Shin-Wolsong nuclear power plants	Additional construction of nuclear power stations in Ulsan and Geongju	Urgent need for construction in preparation for shortage of electricity	Opposition due to environmental concerns	Business delay
KEPCO power distribution	Partition of power generation companies affiliated with KEPCO	Promotion of partitions	Opposed by labor union	Decision delayed for additional five year review
Gyeongin Canal	Construction of 18 km long 100 m wide canal spanning Yellow Sea to Haengju Bridge	Construction of Gulpocheon Spillway	Environment pollution concerns	Not yet started (completion of temporary spillway)
Hantan River Dam	Capacity of 311 million m <sup>3</sup>	Cancellation the existing plan, construction of two riverside detention ponds and flood control dams	Opposition to dam construction	Conflicts around a mediation plan
Establishment of Korea Investment Corporation (KIC)	Establishment of an operation agency for foreign exchange reserve	Established before the end of the year	Interministerial conflicts around an operating agency	Attention on the passage of related laws in the provisional session of the National Assembly

Source: Seoul Economy Newspaper, February 5, 2005, p.3.

personally compatible. From the political and sociological point of view, they can be seen as a result of the competition for occupying scarce social resources. From the administrative point of view, they can be seen as dynamic situations generated among the actors with a focus on policy.

In addition, there are explanations from anthropological and sociological points of view (LEE Dal Gon, 2000). In the anthropological point of view their causes are being found in aggressive human inclinations, whereas from the sociological point of view they appear as a result from the struggle for scarce resources. Their causes are explained in a variety of ways because the

causes for generated conflicts are diverse and complex.

## Factors Causing Conflicts

As previously mentioned, the factors causing conflicts can be explained in various ways. Explanation about the causing factors will help us understand conflict phenomena and find appropriate management measures for reducing conflicts. Summarized the conflict factors are as follows.

### Direct and Indirect Factors

Factors causing conflicts can be divided into direct and indirect (The Ministry of Government Administration and Home Affairs, 1999). Direct factors consist of economic factors such as costs and the distribution of benefits, distrust of technology, lack of rationality, transparency of decision-making,<sup>7)</sup> and cultural, psychological aversion along with the lack of institutions for conflict prevention and adjustment.<sup>8)</sup> Of direct causes of conflicts, in particular problems of the decision-making system,<sup>9)</sup> in which the participation of stakeholders is not properly secured, or formed only in formal aspects, (PARK Myeong Hyeon, 2004) and the absence of an institutional apparatus,<sup>10)</sup> with which they can be managed more quickly and effectively when they arise, are working as significant factors to favor an expanded reproduction of social conflicts.

An increase in the need for participation due to the decentralization that has taken place among society (LEE Gwang Yun, 2005; PARK Min Jin, 2004) and the lack of mutual trust among stakeholders can be considered as indirect factors causing conflicts. Especially mutual distrust and low levels of trust<sup>11)</sup> are inherent between stakeholders can be said to be one of the important factors interfering with a smooth management of conflicts as well as a decision-making system (PARK Min Jin, 2004; CHEON Dae Yun, 2001; the Ministry of Government Administration and Home Affairs, 1999)

## Different Interests of Stakeholders

Conflicts may be generated by different interests of the stakeholders and their different main interest areas. For instance, they sometimes appear due to differences in the recognition of the matter at hand, current situations (factual conflicts), or due to differences in means for a goal attainment (goal-means conflicts). Additionally, there are conflicts due to differences in the values or long-term goals that stakeholders are oriented to (value conflicts) (CHEON Dae Yun, 2001).

## Structural, Extrinsic Factors and Political, Social Democratization

We can find the efforts to seek causes of conflicts from characteristics our society has. They are the efforts to understand not only structural and extrinsic factors our society has, but also political and social democratization as major factors that cause overall conflicts in our society (PARK Myeong Hyeon, 2004). They are generated by confrontations between public and private interests as structural factors. It is pointed out that bureaucratically administrative opportunism also leads to social conflicts, due to the undemocratic nature of policy decisions and an insufficient rational compensation system. Furthermore, since the end of the 1980s the political democratization that has spread throughout society has increased needs for civil participation. This desire for social and political participation is understood as an important factor causing social conflicts.

02

## Conflict Management

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Conflict management is meant to analyze and manage conflicts in order to prevent or resolve them (CHEON Dae Yun, 2001). The more complex or

uncertain the environment surrounding the issue is, the more significant proper conflict management must be emphasized (CHEON Dae Yun, 2001). The importance of conflict management can be confirmed also through the time organization administrators make use of.

For example, according to the documents De Dreu analyzed through experts on conflict management, the organizational managers use on average about 20% of their time in conflict management and its importance is being stressed over time (De Dreu et al, 2001, p. 645). Such a result is well reflected in the fact that the proportion is increasing day by day compared to organizational management.

## The Concept of Conflict Management

Conflict management may be defined to include preventing and resolving conflicts and, as circumstances require, stimulating necessary conflicts (CHEON Dae Yun, 2001). It is sometimes defined as “a process, through which the expansion or the worsening of conflicts to the point of exceeding the receiving limitation is prevented and they are resolved more easily by arranging structures or conditions to help realize advantageous results” (PARK Myeong Hyeon, 2004).

However, such concepts of conflict management vary depending on changes in perspective about conflicts. That is to say, from the classic point of view there has been an emphasis on eliminating them as a main function of scientific management. When it is evaluated from the more contemporary point of view, it is moving towards using it in more positive aspects (CHEON Dae Yun, 2001; Ministry of Government Administration and Home Affairs, 1999).

Its positive view is also emphasized by Baron (Baron, 1990). He states that problems at hand are to be made public and thereby positive effects via problem solving are brought about, such as the facilitation of communication between organizations and groups along with investigating their causes (Baron, 1990).

Baron especially emphasizes the importance of communication in effective conflict management. He finds the reason for it in the fact that by clearly communicating the thoughts of stakeholders, positions of other parties are understood and conflicts are resolved productively (Baron, 1990).

## Subjects of Conflict Management

The subject of conflict management can be an individual, a group, or groups (CHEON Dae Yun, 2001). If the parties in conflict are unable to resolve the issue than a third party can solve the conflict. At this point the third party is not directly involved in the conflict and can be an individual, a group or an organization.

## Theories and Strategies of Conflict Management

What is stressed in conflict management is that appropriate management strategies are needed depending on the conflict contexts, such as the causes, levels, strength, number of conflict parties concerned, and social characteristics and cultures.<sup>121</sup> Another reason for the emphasis on its importance is that it is necessary to find a way that best suits the conflict situation among the various conflict management strategies. Diverse theories and strategies for managing conflicts are introduced below.

## Normative Strategies and Descriptive Strategies

Normative strategies<sup>131</sup> emphasize an attitude in which conflicts are recognized, cooperative goals set up, changes in a situation tried, and forums for the opposite view between the parties are accepted with an open mind (CHEON Dae Yun, 2001). They can be considered to be strategies that maintain functional values through more active actions, such as trying to

change their own actions, seeking an acceptable alternative, or improving the confrontational atmosphere.

On the other hand, descriptive conflict management strategies are focused on strategies that conflict parties should perform to manage conflicts. They can be said to depend mainly on the followings: compromise (negotiation, deal), avoidance, cooperation and problem solving, coercion, appeasement, confrontation, reconciliation, punishment and other regulatory methods.

## Strategies for Constructive Conflict Management

Separate strategies for constructive conflict management may be presented as strategies emphasizing a positive function of a conflict (CHEON Dae Yun, 2001). A strategy for constructive conflict management stresses the creation of an atmosphere to resolve a conflict, standardizing the devices of conflict resolution, and maintaining the balance of power between participants and the parties in conflict.

There may be additional strategies for conflict management that require us to maintain more frequent and effective dialogues, to distribute resources fairly and conflict parties to have good flexibility.

If we look at these preconditions for constructive conflict management strategies more closely, we first need to create a peaceful and cheerful atmosphere. For this the ego-oriented desire must be controlled, the role of the moderator emphasized, and open and honest face-to-face conversations highlighted.

Second, the standardization of conflict resolution devices is required. Arranging autonomous regulations are emphasized, such as standardizing the procedure and method of conflict resolution, improving communication channels, systematic distribution policies, regulations by associations or committees, third party regulations, a petition system, etc.

Further, when independent mediators and adjustment apparatuses are required, staff members of these apparatuses must consist of persons who have specialized knowledge and are capable of exercising influence. Stylized

and standardized techniques and procedures can increase predictability and bring aid in conflict resolution.

Additionally there is a need to maintain a balance of the number of participants or speech time between the conflict parties and to rationalize the means of communication so that beliefs or values of participants can flow freely.

A culture of free communication is very useful in resolving hostility between groups or organizations (Womack, 1990). However, Deutsch contended that a dialogue relation that opens effective communications is impossible due to the competitiveness in the negotiation process (Deutsch, 1969). Also, the willingness to respond flexibly to environment changes is required to solve conflicts due to a variety of needs.

## Government's Strategies for conflict Management and Policy Conflict Management

The following can be considered as strategies for the management of governmental conflicts (CHEON Dae Yun, 2001): a general strategy for conflict management like command, control, and negotiation and a management method by cooperation and support systems, as a way of conflict management based on mutual cooperation and support systems, and an indirect management method based on 4C; communication, conciliation, compromise, and cooperation, rather than on 2C; command & control.

In strategies for policy conflict management, a “co-productive participation method” is emphasized, which manages conflicts through the recovery of symbiotic relationships among equals based on direct participation and understanding of other stakeholders (CHEON Dae Yun, 2001). To do this, management strategies are needed, such as institutionalization of participation, substantiality of information disclosure, strengthening of public relations, utilization of committees, and maintaining laws and institutions (CHEON Dae Yun, 2001).

In order to solve a policy conflict through this “co-productive participation

method” the representation and the balanced participation of stakeholders, the transparency of the selection processes of participants, and the upward participating are emphasized. To do this, the agreement of institutional participation of environmental groups, experts, and residents, as well as the arbitration and adjustment by objective organizations, are needed from the initial stage. The key to proper arbitration and adjustment is that mediators or coordinators maintain a neutral position, are friendly and sympathetic, and their authority must receive respect from the conflict parties.

Aside from this, ongoing social dialogues and social responsibility are required to maintain a mature civic consciousness. Furthermore, conflict management through the co-productive participation method stresses the formation of trust. This formation of trust through interactions between stakeholders is an opportunity to feel comfort from the counterparty and such a formation of trust will give positive effects on resolving conflict (PARK Min Jin, 2004).

Such a formation of trust is affected by various parameters. According to the study of SHIN Don Gyu, procedural justice, sharing of information, partner similarities, conflict resolution techniques and reputation are pointed out in influencing a formation of trust (SHIN Dong Gyu, 2001). In addition to this, the guarantee of substantial fairness through a method of cost–benefit analysis and environmental factors, such as the influence of mass media, are matters to be considered for conflict management through the formation of trust (PARK Min Jin, 2004).

## Administrative, Behavioral, Structural, and Third Party Strategy

De Dreu divides strategies of conflict resolution in person-centered and environment-centered strategies (De Dreu et al, 2001). This distinction can be understood as the division similar to the managerial and behavioral strategies CHEON Dae Yun introduced (CHEON Dae Yun, 2001).

To begin, the managerial strategy is deemed to be a strategy of conflict management as it equally takes into account the quality of economic effects

and quality of life and workplaces, health, education, environment, and fairness. The strategy frequently used among these managerial strategies is negotiation.<sup>14)</sup>

The most important key in negotiations is an effective negotiator. An effective negotiator has following characteristics: empathy, friendliness, attentiveness, relaxedness, openness, less dominance, and less contentiousness. The negotiator plays a more effective role when a situation is more uncertain (Womack, 2001).

In particular, Womack distinguishes effective negotiators or mediators in the planning stage. He distinguishes them from average or ineffective negotiators, while defining them as persons who are able to consider a variety of choices, focus on a common problem, be interested in long-term goals, recount conversations in summaries and mirror questions, know how to raise different opinions later, and first present positive consensual questions (Womack, 2001).

Womack emphasizes also that effective mediators will take human relation-centered characteristics as their features. According to him they understand that communications must be mutual, rather than one-sided, they respect honest self-expressions and sensitivity of other parties, they make certain intents of the other parties repeatedly with mirror questions to know them exactly, and encourage face-to-face contacts.

Furthermore, he defines them as persons who emphasize the role of stories and events maintain a balance in construction or speech, concentrate on goals for collaboration and problem-solving, make efforts to impersonalize and objectify conflicts, and make free communications possible, while creating an atmosphere of trust.

On the other hand, a behavioral strategy can be called an approach that attempts to manage conflicts through mutual cooperation along with the recovery of humanity. It is to maintain a positive view and trust as an equal party and to try to resolve conflicts through a cooperative culture of dialogue and compromise (LEE Do Sun, 1990).

The cooperative culture necessary for conflict management is said to be

created mainly through kindness and truth along with recognition of open communication, the need of conflict resolution, and the legitimacy of interests of each party (Deutsch, 1969). Some keys to the conflict resolution are to eliminate antagonism, cultivate a sense that the parties are equal beings and partners, and bring about a change in attitudes of the conflict parties (Ministry of Government Administration and Home Affairs 1999; CHEON Dae Yun, 2001).

In other strategies of conflict management the followings are considered: structural strategies, such as respecting values of subordinates and listening to their ideas and feelings as well as methods of depending on one's superiors through role modifications, organizational redesigns, personnel exchanges, scouting third parties from external personnel, mediators and consultants, and the procedure of appealing a conflict (CHEON Dae Yun, 2001).

Lastly, the strategy is that of managing conflicts by consultation, conciliation, coordination, arbitration, finance and coercion of third parties (CHEON Dae Yun, 2001). The role and competency of coordinators as conflict managers in relation to the adjustment method are especially important in conflict management (CHEON Dae Yun, 2001; Burrell, 1990).

Mediation is a negotiation strategy through which a third party intervenes between conflict parties and induces reconciliation. Appropriate leadership for coordinators is required to exclude blame and judgment aimed at the opposition party while instead focusing on the facts of the conflict (CHEON Dae Yun, 2001).

Such coordinators have no official institutional authorities. They should play only the role in offering advice and ideas concerning conflict problems and provide a path to resolve conflicts while the conflict parties freely exchange mutual opinions (Burrell, 1990).

Thus, effective coordinators must be persons who listen to conflict parties' opinions along with their appropriate questions. Also they must be able to persistently manage the quality and quantity of stories told while providing appropriate time for practical questions.

In addition to this, arbitrations or negotiations by third party conflict management should include characteristics such as mediation or negotiation.

Table 2.10 shows us a comparison of these techniques (CHEON Dae Yun, 2001; Goldberg, SB, et al, 1999; Burrell, 1990; Buntzman, 1990)(See Table 2.10).

**Table 2.10 A comparison of conflict management techniques**

Division		Negotiation	Mediation	Arbitration
Involuntary or voluntary		Voluntary	Voluntary or involuntary	Voluntary or involuntary
Existence of the third party	Intervention	-	Selected outside parties	Third party selected by parties involved, experts in relevant fields
	Range	-	Private/public corporation	Private/public corporation
	Selection	-	Mutual consent	Mutual consent
	Role	-	Agreed settlement	Unilateral decision
The existence of binding force		Setting up binding force by consultation is possible	The setting up of binding force by consultation is possible	The existence of binding force or non-binding force
Level of formalization and organization		Informal, disorganized	Informal, disorganized	Low level of formalization
Procedures	Characteristics	Evidences, arguments, unlimited profit hand over	Evidence, arguments, unlimited profit hand over	Evidence, chances for argument presentation
	Progress content	Interests/positions adjustment	Interests/position adjustment	Confirmation/position adjustment
	Main means	Negotiation	Reconciliation, adjustment negotiation	Fact finding negotiation
Ground for decision		Bilateral agreement	Bilateral agreement based on advice of the third party	Bilateral evidential matter and decision of arbitrators
Results		Mutually receivable agreement on what was desired	Mutually receivable agreement on what was desired	Decision-making not based on reason or compromise but based on agreement
Public or private		Private	Private	Private or public

Source: CHEON Dae Yun, 2001, p. 236; PARK Myeong Hyeon, 2004, p.32-33; Goldberg, S.B., et al., 1999.

Strategies are used to manage conflicts are focused on structural variables in a policy decision process and tactical variables as well as coalition, rational planning, judication, negotiation as management strategies in accordance with the stages of different policy processes (Stephenson & Pops, 1990).

Dahl suggests three social policy decision models of coalition, hierarchy, and bargaining (Dahl, 1955). Zartman, influenced by Dahl, presents those of coalition, judication, and negotiation (Zartman, 1978). Dror adds rational planning as the fourth model (Stephenson & Pops, 1990).

LEE Dal Gon explains how to manage conflicts in four dimensions. His

methods include the creation of a superior party among the conflict parties, keeping as far as possible from conflicts, negotiation focused on coming face-to-face in order to increase each groups' own interests, and intervening by a third party when conflict parties cannot find appropriate solutions or do not make efforts toward resolution.

## Theory of Conflict Management Model: Dual Concern Theory

As previously explained, in order to comprehensively and systematically understand the conflicts that occurred in connection with the Seoul bus reform, we will review theories of conflict management. Theories of conflict management will serve to provide a framework in order to understand and analyze the conflicts due to the Seoul bus reform.

Referring to the conflict management strategies introduced, this study will explain the Seoul bus reform conflict management cases associated with the dual concern theory proposed by Pruitt & Rubin (Pruitt & Rubin, 1986). Pruitt & Rubin's dual concern theory explains that a method of resolving conflicts differs, depending on the degree of interest the conflicted parties have to each other.

The theory is closely related to the theory of cooperation and competition suggested by Deutsch along with previous studies of Blake & Merton (Deutsch, 1973; Blake & Merton, 1964; De Drew et al, 2001).

The theory considers conflict management as a function state, in which the interest in oneself is combined with the interest to other party. For example, conflict management, depending on the degree of interest to oneself and the other party, appears in the five following different forms of conflict management: forcing, yielding, avoiding, problem solving, and compromising (De Drew et al, 2001). Let's look at them more closely.

Excessive interest in oneself and low interest in the other partner induces the forcing method of conflict management that forces one's ideas on the other. This method depends on threats, bluffs or pledges using things such as

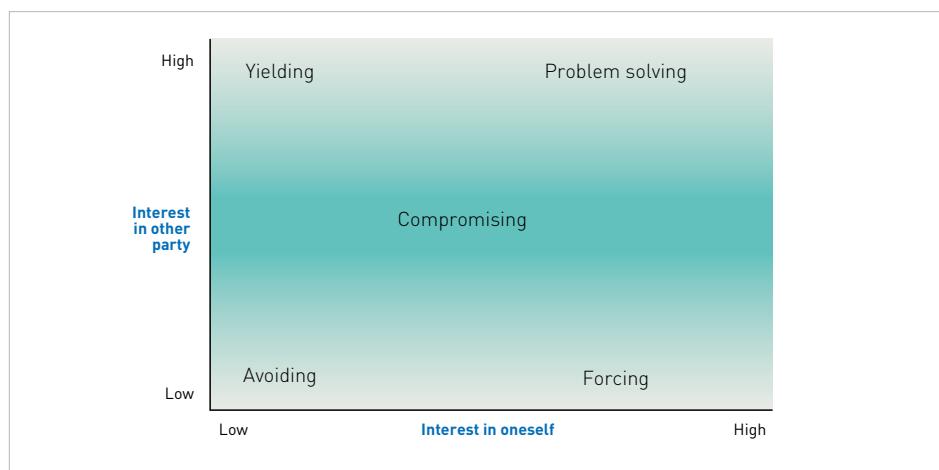
compelling claims or positions.

However, low interest in oneself and high interest in others stimulates a method of conflict management like yielding, which sympathizes opinions received from others. The method can be said to solve conflicts by way of one-sided yields, unconditional promises, and commitments offering help.

Low interest not only in oneself, but also in other parties includes a method of avoiding relevant problems, by reducing the importance of the problems and making one not interested in the relevant problems.

Conflict management involves a high interest in other parties as well as in oneself is the fourth strategy. Problem solving is oriented towards a mutual agreement that can satisfy both intentions of oneself and other parties at the same time. Problem solving through mutual agreement as a strategy of conflict management provides information and opinions about priority or preference of the problem to solve. It includes a trade-off between important and less important problems.

The fifth method is a compromise by way of recently presented intermediate concerns of oneself and the other party. This method as a conflict management strategy may be understood as “a half-hearted problem solving” strategy (Pruitt & Rubin, 1986) or a “distinct strategy” in that it resolves a conflict by mixing a diversity of strategies, such as problem solving,



**Figure 2.35** Dual concern theory and five conflict management strategies

coercion, concession, avoidance and so on (Van de Vliert, 1997).

The five conflict management strategies brought forward in the dual concern theory are divided again into their “lean version” and their “expanded version” (De Dreu et al, 2001). The lean version includes forcing, yielding avoidance, and problem solving while the expanded adds compromise to these four conflict management techniques (Figure 2.35).

## Changes in Conflict Management: from DAD to ADR, and to Hybrid ADR

Due to the fact that participation opportunities for the public through the introduction of governance and the maturation of civil society have enlarged, a multitude of problems originate from using the DAD method as a traditional conflict management technique. In particular the traditional conflict strategy has some negative aspects, such as a lack of procedural rationality, as well as sharp opposition and conflict. As a result to such problems emerging from DAD conflict management, the need to change the traditional conflict management method has further been encouraged.

Alternative dispute resolution (ADR) is presented as a method which reduces the negative effects that the traditional conflict management technique has. It can be considered to be a method with which conflicts are solved mainly based on negotiations, adjustments, and arbitrations.

Recently the hybrid alternative dispute resolution (Hybrid ADR) has been highlighted as an alternative to overcome the limitations of ADR, which was applied as an alternative to DAD (Goldberg, S.B. et al, 1999). Hybrid ADR is a method that mobilizes a diversity of conflict management methods. A reason for the need of mixed conflict management strategy is the limitations that occur in only using simple conflict management strategy, because unlike conflicts of the past, today's conflicts are highly complex. Modern society has become more complex and therefore there is the need for a more complex conflict management strategy rather than a simple conflict management strategy.

## The 1980s

In the early 1980's, Seoul put almost all of its capabilities into the construction of subways. Thus, buses were forecasted to yield the top position in public transport to subways as they were facing the start of the subway era as Seoul Subway Line 2 and Line 3 began to open. Nonetheless, the 1980s are considered a decade when the bus business changed in a groundbreaking way. The buses had upgraded vehicles and improved services, open fully in 1985. In December 1980, seats reserved for senior citizens were introduced for the first time and from 1981 single operator buses without a ticket girl were operated on a trial basis. In 1986, the prepayment system came into force and an autonomous bus service system was implemented where passenger boarded at the front and exited at the back.

It makes the 1980s especially significant that with the appearance of single operator buses, the bus ticket girls disappeared into transport history. In 1985, the first articulated buses were introduced. Since 1985, residents were released from the troubles of climbing into and out of buses because almost all buses were produced as rear-engine vehicles. In October 1985, the exclusive bus lane system was enforced. Buses with seats produced from July 1986 were required to install heating and cooling systems at additional cost. The initialization of automatic guiding machines for bus routes, adjustment of routes, bus color schemes in tune with urban landscapes, the adjustment of bus stations, and so on were made for the Olympics in 1988. Nevertheless, transport quality was becoming worse and transport share ratio which was at 66% in 1980, dropped sharply to 51.5% in 1989. Bus fares in 1988 were 140 KRW for urban, 100 KRW for middle and high school students, and 500 KRW for buses with seats.



Figure 2.36 Articulated bus in 1980



## Seoul Bus Reform Stories and Conflicts



# 01

## Introduction

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The contents of the bus reform and conflicts can be categorized largely depending on time and content. The timeline of the reform starts from August 2002, when the reorganization of Seoul bus system was reviewed, until July 2004 when the bus reform was enacted. The necessity of promoting the bus reform, viewed from its contents, was reviewed not only in the aspect of its external and internal factors, but also in practical benefits.

Then we will introduce conflict contents, specifically, along with each cause of conflict appearing at each stage of the bus reform and analyze measures to resolve conflicts from the point of view of conflict management. For this, we introduce conflict management strategies used by Seoul to resolve the conflicts that emerged during the reform.

Also, we will consider what characteristics Seoul's conflict management had in the bus reform and compare it with conflict management strategies used in the Cheonggye Stream restoration. Lastly, conflicts caused by the bus reform can be said to be resolved by active and participatory methods, but future conflicts may be avoided by studying conflict cases expected in the future.

# 02

## Approaching Conflict Management

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We have examined some theories of conflict and trends in conflict management. Next, we will specifically consider some conflict cases related to the Seoul bus reform. In this study we will use a variety of research methods.

### Literature review

We analyzed basic measures to understand conflicts and conflict management preferentially by way of literature review. Through this we attempted to better understand the concept of conflict, its causes, and measures for conflict management. The literature review included related domestic and foreign books and articles, materials published by Seoul City, newspapers, and magazine articles.

### In-depth Interviews

In-depth interviews were conducted from May 12 to May 30, 2005 with 9 of the 20 members of the Bus Reform Public Committee, who played a leading role in the reform and four public officials who were involved in the reform in order to specifically analyze the conflict management in the bus reform process. All interviews were recorded for future analysis.

### Content Analysis

We attempted to look at the conflict contents related to the reform and responses to it using a content analysis technique. For this we used the meeting minutes of the Bus Reform Public Committee, newspaper articles, and in-depth interview material.

# 03

## Conflict Cases in the Bus Reform

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One of the most important causes of instigating conflicts is public policy (CHEON Dae Yun, 2001). In addition, the conflict that public policy brings is all around us. Conflict cases frequently occur due to the characteristics inside public policy.

Public policies have substantial influences on certain cases or certain interested groups who live within a given territory, whether or not by design. In addition, their wide and substantial influences affect not only the direct stakeholders, but also the public indirectly. The Seoul bus reform is going to be a representative case that shows various and widespread conflicts that can occur in other policies.

Conflicts due to the Seoul bus reform came into view in several cases, starting from conflicts regarding the necessity of the Seoul bus reform to conflicts regarding its details. Further, each conflict case would be generated due to different approaches about such conflicts. They may occur in each process where the bus reform exists. Such conflicts vary depending on the degree of interest relationships between the relevant parties, the number of stakeholders, and the degree of social concern.

In this study we analyze conflict cases that came into light in the promotion course of the Seoul bus reform from July 1, 2004, dividing them largely into three stages.

To begin, we examine conflict cases generated around the validity on the promotion of the reform. At this stage, we explain conflicts between Seoul City and the Seoul Bus Transport Association regarding the reform, as well as between the National Police Agency that required coordination policies, and the relevant agencies like the Ministry of Land, Infrastructure and Transport. Secondly, we consider conflict cases coming to surface, specifically in relation to the bus reform. We mainly focus on conflicts between Seoul and the Seoul Bus Transport Association while paying particular attention to the Bus

Reform Public Committee, which played an important role in the reform.

Finally, we will suggest some implications and directions for future urban management of Seoul, putting expected conflict cases next into perspective, along with an overall assessment for the conflict management related to the Seoul bus reform.

## 04

### **Efforts to Reorganize Seoul's Buses**

#### **Efforts to Reorganize the Bus System (1996 – 1997)**

##### Promoted Contents

The Seoul bus reform is not something that started just recently. A multitude of experts and civil society organizations have consistently raised the need for a fundamental restructuring of the buses for over 40 years. Seoul had experience in promoting the restructuring of the bus system based on these requests. Seoul made efforts for restructuring, but did not execute them successfully. The reorganization promoted by the first democratically elected mayor can be mentioned as a typical example of this.

We can read the main content of the reform and feel the vivid expectations in a newspaper editorial from that time:

*“Seoul City has announced a draft for comprehensive measures to reform and renovate the problem-ridden operation system of city buses. We have great expectations, as many existing measures for the city buses made all their problems chronic, patching up them consistently due to interests of bus companies and limitations of city policies. When looking at the major measures in the draft we feel a will to reform structures such as introducing public buses, restructuring routes and abolishing regulations regarding bus*

*operation. Problems like long curbed routes, deficit routes and rough driving that causes passengers inconvenience should be fundamentally resolved at this opportunity. Also we hope that the operation of public buses will be an opportunity to understand the operating situation of the bus companies, so that there may be measures against claims of deficit and fee raising that bus companies seem to continue every year.”*

- Joongang Ilbo editorial, Seoul Buses Going on Operating Table, June 16, 1997

## Implications

Efforts to reorganize the bus system at that time may be a case where conflicts are sealed before coming to the surface. Many scholars and Seoul City had sympathy with the legitimacy, felt the need of the reform and agreed on its validity, but failed to persuade the bus transport service companies, one substantial party.

Various factors worked against the bus restructuring promoted in 1996-1997. But its failure was sealed through three complex factors.

The first factor, as pointed out before, was the driving force of policy decision-makers at that time. They were sympathetic to the importance of public transport buses and the necessity of improving public transit, but had a weak will to endure the confusion and difficulties caused by the policy promotion.

Second, the problem with the decision-making system were reactions and conflicts due to the one-sided, city-centered policy promotion. They seemed to be a major factor that brought the bus reform difficulty as mass amounts of stakeholder opinions were neglected.

Lastly, the necessity for the bus reorganization was relatively little in 1996 and 1997 compared to 2004. One of the factors that made it difficult at that time was that from the perspective of bus service companies, the urgency and the crisis consciousness for it were not significant, since the share of the buses out of the total public transport means was not minor.

## The Test Introduction of Median exclusive Bus Lanes in 2003

### Promoted Content

Since the third democratically elected Seoul mayor was inaugurated, the Seoul bus reform urgently needed to be implemented again. From August 2002 public officials established and participated in an Action Plan along with members of the Seoul Development Institute, academic circles, and transport experts.

On the basis of this action plan, the bus reform was decided to be carried out on a trial basis interlinked with the Cheonggye Stream restoration construction that was launched on July 1, 2003. That is to say, as one of the measures to solve expected construction traffic congestion, a median exclusive bus lane was adopted on a trial basis on Dong-Mia Road, a trunk route in the northeast region of Seoul.

Mr. K, a member of the Bus Reform Public Committee, explains the need for the test introduction of the median exclusive bus lane on Dong-Mia Road of Dobong District.

*"The bus reform originates in the pressing matter of solving huge traffic disturbances that were accompanied by the Cheonggye Stream restoration project. The northeast region of Seoul was directly affected by the project in terms of the traffic. Thus, in order to solve traffic problems in the northeast region some reform proposals were offered like the installation of median exclusive bus lanes."*

- Interview with Mr. K, a member of Bus Reform Public Committee

The introduction of the median exclusive bus lanes was promoted as a part of the Seoul bus reform. Positive effects were expected from passengers, bus operators, and in other social dimensions. From the perspective of bus passengers, an expectation of a reduction of total travel time was realistic.

Additionally, passenger awareness about the routes was expected to

increase along with the reduction of their bus waiting times. With the introduction of the median exclusive bus lanes, bus operators could expect various effects. Rapidity and punctuality of the buses were increased and it could lead to an increase in operating efficiency and business profits.

Further research suggested positive social aspects via an expected easing of road congestions as passenger cars demand would convert into bus demand by the introduction of these lanes.

As analysis showed the median exclusive bus lanes would create positive benefits not only for users and operators, but also for society as a whole. Thus, selection work on piloting districts for the lanes was performed.

The basic conditions for the test introduction of a median exclusive bus lane as the road connecting major cities outside of the city and its center and sub-centers is 1) it must be a main line road through high-density development areas, 2) travel volume of buses must be at least more than 150 units per hour, due to the roads where the services of public transport, like subways, are poor or the bus use is in a great demand, and 3) traffic congestion on the road must be bad and the road must ensure more than three-lanes per direction (Seoul Metropolis, 2003).

Based on these criteria the following were planned as sections for the introduction of a median exclusive bus lane: 14 km on 7-9 lanes of Dobong-Mia Road, 10.1 km on 6-7 lanes of Mangu-Wangsan Road, 9.3 km on 8-10 lanes of Gangnam Boulevard, 18.7 km on 6-11 lanes of the Siheung-Han River Road, 15.9 km on 6-10 lanes of the Gyeonin-Mapo Road, and 9.9 km on 6-8 lanes of the Susaek-Seongsan Road (Seoul Metropolis, 2003). The Dobong-Mia Road was the northeast region trunk line road and was selected as the primary section of the test introduction of the median exclusive bus lane.

## Conflict Contents

However, efforts to introduce a median exclusive bus lane on a trial basis on the Dobong-Mia Road ended in failure despite the various positive effects the lane had. A variety of factors led to this failure, but the primary cause

can be found in not having expected nor properly managed the conflicts accompanied by the test introduction.

### Conflicts according to each Object

- Conflicts between the Seoul Metropolitan Government and the Bus Service Industry

Seoul had been in conflict with the bus service industry around the median bus exclusive lane that was to be introduced on a trial basis at the Dobong-Mia Road. The fundamental factor that underlies such conflicts is rather the adjustment of the entire network of Seoul bus routes, which was to be promoted later rather than the test introduction of bus lanes.

The bus service industry had the right of the routes concerning the relevant region. Its resistance against being selected as a test area as well as wanting to prevent future changes to bus routes acted as the main reason for inducing conflicts with Seoul and opposing the installing of the lane.

According to interviews with Mr. M and Mr. F, both Seoul public officials and Mr. I, a member of Bus Reform Public Committee, the anxiety about why the lane must be preferentially introduced in the region is pointed out as one of the reasons for opposing the lane test on the Dobong-Mia Road.

- Conflicts between Seoul and local residents (merchants)

Conflicts Seoul was facing were ones between the city and local residents, particularly the merchants in the relevant sections who were concerned about loss of business due to the introduction. The installation would inevitably change the location of bus stops in the affected sections. The possibility of changes in the trade areas located in these sections brought conflicts with Seoul and led to opposing the median exclusive bus lanes.

The politicians of the regions involved in the median exclusive bus lanes trial, represented only the interest of the local residents rather than understanding the necessity and validity of the bus reform. We can point out their position of opposing the bus reform as somewhat of a reason for

frustrating the initial introduction of the lane.<sup>15), 16)</sup>

- Conflict between Seoul and the autonomous regions

In addition to this, conflicts due to its test introduction occurred between Seoul and the autonomous regions. One of the reasons for the opposition of relevant autonomous regions is the insufficient measure to resolve discomfort of the traffic flow that may occur by the introduction of the median bus exclusive lanes.

According to interview material with Mr. M, a public official who managed work related to its introduction and with Mr. I, a member of the Bus Reform Public Committee, point out that traffic at intersection may increase due to the bus lane introduction, measures dealing with vehicles entering and exiting from alleys were insufficient and worries about civil complaints from residents using private passenger vehicles existed.

*“To begin with Seoul faced two difficulties. On the one hand are the politicians in the relevant regions, the relevant autonomous regions, and the interests of residents and policemen, on the other hand the bus service companies in the relevant region, who oppose the route reorganization.”*

- Interview with Mr. I, a member of the Bus Reform Public Committee

#### Conflicts due to the Traditional Method of Conflict Management (DAD)

Conflicts were generated due to immaturity in the promotion process of introducing the median exclusive bus lanes on a trial basis along with conflicts generated according to each content. It is judged that conflicts were inevitable in that conflict induction accompanied by its test introduction followed the DAD model.

To begin with, policy decisions for the test introduction on the Dobong-Mia Road were made with the participation of stakeholders not being sufficiently guaranteed.

According to interview material with Mr. F, a Seoul public official, despite

the test introduction having gone through public hearings as a procedure to collect local public opinions, the result did not deviate significantly from considered framework despite the traditional DAD model relying on widespread consultation with public hearings.<sup>17)</sup>

Its rational can be evaluated largely on not moving away from the DAD method as a traditional technique of conflict management. The contents of the test project were unilaterally declared by Seoul City, while opinions of relevant district offices or stakeholders were not reflected in the policy of its test introduction.

Also, Seoul City did not listen to, nor try to understand or seek persuading strategies about various opinions after the announcement of its test introduction. Rather the city adapted traditional methods of conflict management by which it only explained and promoted its previously announced policy alternatives. According to our analysis this resulted in to a situation of not being able to manage conflicts between stakeholders.

### Lack of Seoul's Preparation for the Pilot Project

The lack of Seoul's preparation and experience for its test introduction also worked as a factor of inducing conflicts. Mr. B, a public official of Seoul, evaluates the reason of its failure as follows:

*“The city tried to introduce the median exclusive bus lane on the Dobong-Mia Road on a trial basis. But it encountered great opposition. It was the first try. Doing so much from the beginning was too much. It was unfamiliar. There is an immaturity of the city in this sudden trial.”*

- Interview with Mr. B, a Seoul public official

In a similar vein, Mr. M, another Seoul public official who participated in the Seoul bus reform, explains the reason for the failure of its test introduction was the expansion of social basis for the reform was less established at that time.

*“We tried to promote the test introduction of the lane with tangible results. However, we were confronted with opposition of northeast Seoul residents. The expansion was the basis for the bus reform and was not actually done until that time. Bus service providers educated workers that the reform was bad. Bus drivers handed out flyers based on this in buses. No wonder that the residents who read it didn’t like the reform!”*

*- Interview with Mr. M, a Seoul public official*

## Implications

The test introduction of the median exclusive bus lanes ended in failure, but there are many implications in connection with the Seoul bus reform. Its test introduction was promoted as part of the bus reform. However, it was promoted with insufficient consensus, persuasion, and understanding among stakeholders about validity and necessity of the test introduction. At this point the failure can be thought to be a case for showing the importance of consensus or persuasion, or understanding among stakeholders in the process of policy promotion.

In this regard, Mr. J, a member of the Bus Reform Public Committee, makes the following assessment:

*“For example, it would be much better to prevent in advance various controversies and interests that can be generated in the decision-making process and participate in adjusting such controversies or interests concerning whether Dobong-Mia Road suits the test project and so on.”*

*- Interview with Mr. J, a member of the Bus Reform Public Committee*

In this way, the one-sided form of promotion for the introduction of median bus exclusive lanes as part of the bus reform caused conflicts rather than understanding about its introduction as a means to achieve a goal of the bus reform. Furthermore, the traditional form of conflict management was shown to be a major factor causing conflicts.

In other words, the case of the test introduction of the median exclusive bus lane on Dobong-Mia Road is a representative case in which conflicts concerning goals, means, and promotion worked in a complex way to eventually frustrate the reform project. The case can be seen as a valuable stepping stone for preparing future successful implication of the Seoul bus reform.

Further, the failure of its test introduction created momentum important for expanding the Seoul bus reform across the entire Seoul metropolitan area. Mr. K, a member of the Bus Reform Public Committee supports this fact as follows:

*“The opposition of bus companies, passengers and politicians in the regions of the test introduction became an opportunity to reverse the partial bus reform into a reform of the entire city of Seoul.”*

- Interview with Mr. K, a member of the Bus Reform Public Committee

Additionally, this failure provided an opportunity to renew the promotion system for the bus reform. As it created momentum for inaugurating the Bus Reform Public Committee, it played a significant role in promoting the Seoul bus reform across the entire population. Mr. B, a Seoul public official who led reform-related tasks, evaluates it as follows:

*“When the median exclusive bus lane was introduced, both the management and the labor side couldn’t help opposing the Seoul’s reform. I think the period of understanding and persuasion was too short. We took one year to accomplish it. We postponed it and began to gradually persuade them with ample time. In the meantime the Bus Reform Public Committee was established. The need was raised for a civil consultative body for the Seoul bus reform. This was embodied in the Bus Reform Public Committee.”*

- Interview with Mr. B, a Seoul City official

# 05

## Conflicts in the 2004 Seoul Bus Reform

It is vital to understand the stakeholders who participated in policy decision-making and what relationships they have to each other in order to understand the conflict related to the reorganization of the bus system that was promoted in 2004 (Stephenson & Pops, 1990).

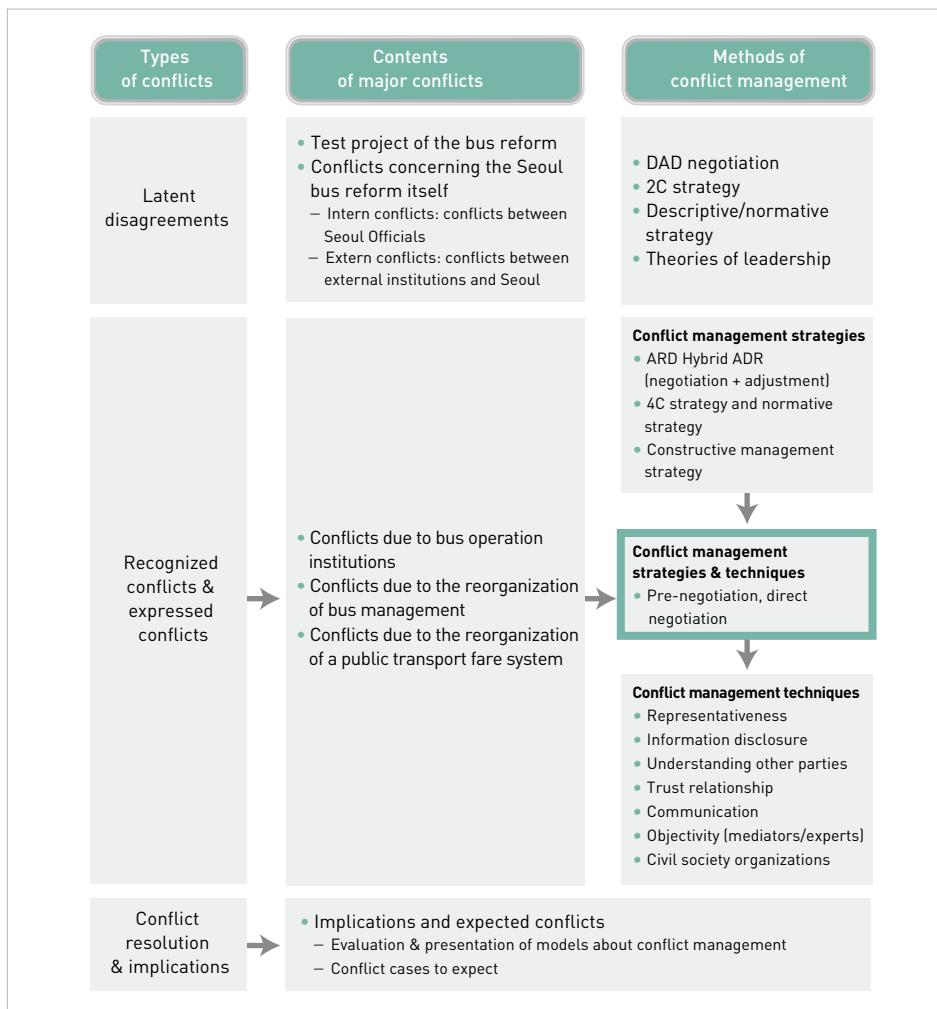


Figure 2.37 A model for analysis of the Seoul bus reform related conflicts

Before examining conflicts of the Seoul bus reform which was implemented in July 2004, we will consider cases of conflict accompanied by the reorganization based on conflict modes around various conflict causes in the reorganization that appeared among stakeholders. For convenience of the analysis we will focus on conflict processes.

Various approaches have already been proposed for the conflict processes. For example, Forsyth explains that they are divided into five steps: disagreement of opinion, confrontation, intensification, moderation, and solving. Pondy explained them by classifying them into latent, recognized, felt and manifested conflict stages (Pondy, 1967).

In examining conflicts related to the Seoul bus reform, this research will focus on the process suggested by Pondy (Pondy, 1967). With the analysis model as a tool for understanding and analyzing the reform, we will examine specific conflict contents generated in each process. In addition, we will analyze how Seoul City solved conflicts from each progress process and in each theme (Figure 2.37).

We also try to consider specific conflict contents generated in each conflict progress stage mainly in this chapter and methods of conflict management raised in each process more concretely in the next chapter.

## Stakeholders of the Seoul Bus Reform in 2004

Stakeholders with interest in relation to the reform are divided largely into Seoul, city bus-related groups, and residents and relevant civil society organizations. Seoul City as an axis of the Seoul bus reform manages and ultimately takes the helm of its traffic problems, including decision-making, implementations, and evaluations of overall policies. In this reform Seoul is an executive organ that takes charge of traffic problems in Seoul and ultimately participates in the Seoul bus reform as a crucial stakeholder.

Whereas the Seoul government played a role in drawing a blueprint for the reform, the Seoul Bus Transport Association forms another important axis

of the reform as the organ that puts the reform into practice. The union is both an object of the reform and a crucially invested party in that it operates buses in Seoul.

The Bus Transport Labor Union is classified as an invested group in the bus reform along with Seoul Bus Transport Association. As the Bus Transport Service Union is an involved party of the Seoul bus reform, the reform cannot be accomplished without understanding and cooperation of the Bus Transport Labor Union.

The public is another important axis of the reform and seem to be the most important stakeholders in that they are the real beneficiaries of the reform and the ultimate consumers. But as they have a characteristic of being ‘random people’, it is difficult for them to have representativeness. As a result, civil society organizations extend social movements in representing the interests of Seoul residents as do members of Seoul City Council who are elected to perform public representation.

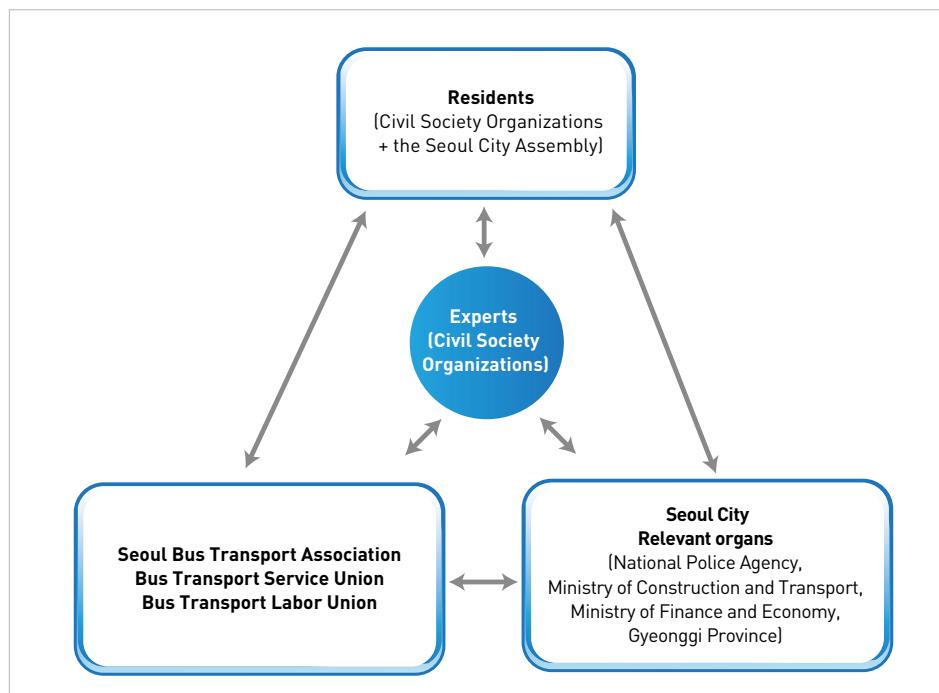


Figure 2.38 Stakeholders of the Seoul bus reform

Additionally, other stakeholders who must consult on wide area transport networks include the National Police Agency, the Ministry of Land, Infrastructure and Transport and the Ministry of Finance and Economy who collectively possess substantial policy and licensing authority in both Seoul and Gyeonggi Province (Figure 2.38).

## Latent Conflicts

Latent conflicts are conflicts hidden under the surface and hold the possibility of becoming a fully visible and larger conflict (Pondy, 1967). As they are not as visible, other parties cannot officially recognize ideas or thoughts that may cause conflicts because they are not specified or confirmed.

There were latent conflicts at the planning and research stage as the city government reviewed direction and promotion strategies in relation to the bus reform. At this stage, ideas for the reform were created while the legitimacy and the need were reviewed and concepts of the reform were elaborated on after research of domestic and overseas case studies.

This stage of latent conflicts occurred as the third Seoul Mayor was appointed and proclaimed his desire for the Seoul bus reform and made reform arrangements for embodying it.

## Recognized Conflicts

The stage of recognizing conflicts is when stakeholders recognize possibilities and the contents of conflicts in relation to the reform (Pondy, 1967). Recognized conflicts appear as stakeholders specify more of their thoughts or ideas, expressing them in one form or another.

When viewed in connection with the Seoul bus reform, these recognized conflicts emerged as Seoul was completing visions for the reform. The city government went through a variety of opinion convergence processes, such

as public hearings and Advisory Council meetings, as measures to collect opinions of various experts or stakeholders on finalizing reform ideas.

When the city's visions of the bus reform began to materialize through these opinion convergence processes, stakeholders disclosed different views about the legitimacy or necessity for promoting the reform, promotion strategies, and expected effects. These conflicts continued until they were fully exposed by the Bus Reform Public Committee.

## The Seoul Bus Reform and the Internal Conflicts of Seoul Metropolitan Government

Seoul Metropolitan Government had a number of difficulties in recognizing conflicts generated inside Seoul with connection to the reform. This is because certain limits may exist in recognizing conflicts between persons overseeing implication of the reform due to department characteristics and organizational bureaucracies.

Some conflict cases could be recognized through interviews with those who participated in the reform. One of the internal conflicts was between the reform concepts and their implementation. Seoul city officials, Mr. B and Mr. F describe these conflicts below.

*"There were some conflicts inside Seoul. These conflicts were between ideas and their practice. It is very difficult in practice to do implement the plan. Also the most important was the consent of the operators. Without their consent the implementation was not possible. It was very difficult to integrate them."*

- Interview with Mr. B, a public official in Seoul

*"There were internal and external conflicts. However, it is difficult to tell you about internal conflicts"*

- Interview with Mr. F, a public official in Seoul

However, the claim has been raised that these conflicts come rather from the differences of opinions about the policy promotion than from the aspects talked about generally. This is because the general direction and purpose of the bus reform was the same, but only differences of opinion about practicability and methods were controversial issues.

Both Mr. L and Mr. M who participated in the reform give the same explanation about this claim.<sup>18]</sup>

*“Inside Seoul there was not any great problem between the city’s departments. It’s because public officials have convictions about the efficiency and legitimacy of the bus reform. We seem to have joined together in that way.”*

- Interview with Mr. L, a public official

*“There were conflicts from individual’s character differences, but no conflicts from the idea of the bus reform itself. The cooperation system was very well arranged.”*

- Interview with Mr. M, a Seoul public official

Internal conflicts inside Seoul city about the bus reform were expressed only partially in the conflict stage. When the bus reform was promoted no new conflicts surfaced.

## Conflicts between Stakeholders: Seoul City and the Seoul Bus Transport Association

The conflicts between the stakeholders in the reform solidified after the Seoul bus reform plans were formally declared. Conflicts were especially generated between Seoul City, who planned and implemented the policies on the bus reform and the Seoul bus labor union which was directly affected by the reform. They could largely been seen as conflicts about its legitimacy and need and between members of the Seoul Bus Transport Association around

their accepting of the reform. These conflicts existed before August 26, 2003 when the Bus Reform Public Committee officially began.

## **Conflicts around the Legitimacy of the Bus Reform: Conflicts between Seoul City and Seoul Bus Transport Association**

Considerable conflicts were generated between Seoul City and the Seoul Bus Transport Association around the legitimacy and need for the reform, though not directly expressed as such. Seoul City approached the bus reform from the view of increase public service of the bus system, while the Seoul Bus Transport Association which represents the interests of bus operation companies, viewed the bus reform, especially the introduction of a quasi-public system, as a violation of private property rights. In this regard conflicts between the both parties were inevitable.

In particular, recognized conflicts shown in connection with the introduction of the quasi-public system can be thought to be one of the deepest conflicts in relation to the Seoul bus reform. It is because they clearly reveal the conflict between public usage and private property rights. Mr. I. and Mr. H. who are members of the bus reform pointed out this aspect as written below.

*"The bus service providers went as far as to claim that buses had been fully operated under private management and the city had to buy them up if the city would interfere through the system reform. They claimed vehicles and garages belong to the bus companies, too. They reacted against the reform, saying that even the local government cannot command it. It was difficult to solve."*

- Interview with Mr. I., a member of the Bus Reform Public Committee

*"Seoul City tried to reform, stressing the part of so-called publicness."*

*Business men insisted on private management. So, there were collisions. No problem, if the city gives enough compensation and directly operates the buses. That would be public management. However, Seoul City provides no investment at all. Of course there was the construction of infrastructure such as roads. But the construction is not exclusively for buses. It is an investment for social infrastructure. There is no direct impact on bus operators. Until now, buses are operated by private businesses while Seoul licenses the routes. Fares are licensed by the city. Since Seoul City administers routes, fares, and incomes, business people raised their voices about what role they can play. They said the government must make proper compensation to take the right of operation or the right of management from them. So there were a lot of conflicts. On one hand, they prepared a constitutional appeal and a trial, on the other they protested. We experienced a lot of conflicts with them.”*

- Interview with Mr. H., a member of the Bus Reform Public Committee

The conflict over the legitimacy of the bus reform was resolved to some extent. But doubt continued on whether the policy will be consistently carried out when the sitting mayor's term ended. Mr. I, who participated in the Bus Reform Public Committee, describes the anxiety of the bus industry in the early period of the reform below.

*“There was concern that the transport policy would revert back when the mayor left office. They expressed doubt at whether this policy would be accepted by the new administration or not. Operators knew they would go bankrupt without a reform but initially they did not trust the reform. They asked how they and the labor union, who were direct stakeholders, would be treated if the bus reform would derail. They believed that the reform would be thrown into chaos if it was not finished within the current administration. Early on they were greatly concerned about what would happen when the mayor’s term ended.”*

- Interview with Mr. I., a member of the Bus Reform Public Committee-

## Conflicts around Joining the Bus Reform: Conflicts between Members of the Seoul Bus Transport Association

There were many conflicts between members of the Seoul Bus Transport Association around joining the Seoul bus reform. Such conflicts were mainly focused around existing routes and were frequently between the bus service companies that had the highly profitable “golden routes” and those companies that did not. While bus service companies with golden routes were very negative towards the reform, those who did not have such golden routes were very positive towards it. Mr. H and Mr. J, who participated as members of the Bus Reform Public Committee explained the conflict situation at that time between bus service companies around joining the reform.

*“The companies who have golden routes didn’t feel much need to improvement operation while those who had unmarketable routes felt the need relatively more. The pros and cons seemed to center around this. One group claimed that income must be uniform through communication. Another group was repelled by that idea saying it could not be done as they were not socialists.”*

- Interview with Mr. H, a member of the Bus Reform Public Committee

*“As can clearly be seen, there were certain controversies with the bus reform. Especially as the people who ran the bus service companies didn’t have common interests, such as those who had golden routes, those who couldn’t make a good living, and those who ran neighborhood buses.”*

- Interview with Mr. J, a member of the Bus Reform Public Committee

## Recognized Conflicts between Seoul City and Relevant Organizations

Recognized conflicts with relevant organizations for the reform can be

divided largely into conflicts with the National Police Agency in relation to the introduction of the median exclusive bus lanes and conflicts with the Ministry of Land, Infrastructure and Transport in relation to the introduction of a quasi-public bus system.

Conflicts generated with the National Police Agency, who had policy authority concerning the introduction of median exclusive bus lanes, were over concern that the introduction of these lanes might negatively affect traffic flow. In particular, the National Police Agency understood that local residents, politicians, and relevant autonomous regions had opposed the test introduction of the median exclusive bus lane on the Dobong-Mia Road in 2003. With that background in mind, the reform was faced with fewer conflicts. The conflict situation over its introduction is explained by Mr. F and Mr. M who participated in the reform as Seoul public officials.

*“The National Police Agency opposed it along with the Ministry of Land, Infrastructure and Transport. Approvals had to be given by April 2003 for operation to start. There were many obstacles because the present mayor belonged to the opposition. The police initially opposed it due to regulations that didn’t permit bus exclusive lanes inside the city center. There was no legal basis. We had too little support.”*

- Interview with Mr. J, a Seoul public official

*“Externally seen, there were mainly conflicts with the National Police Agency. It can be considered to be a much more complex entity than Seoul City, as it had a lot of superior authorities to confront, such as the Prime Minister’s Office or the National Assembly. We were confident in the technical aspects, but had political difficulties.”*

- Interview with Mr. F, a Seoul public official

There were conflicts with the Ministry of Land, Infrastructure and Transport in connection with the introduction of a quasi-public system. The main reason for conflict was over difficulties running public routes according

to the current law. A Seoul public official, Mr. M who participated in the business negotiation with the Ministry of Land, Infrastructure and Transport explains the situation as follows.

*"In the course of policy consultations we quarreled with the Section Chief of the Ministry of Land, Infrastructure and Transport and with the Prime Minister's Office for a reform bill necessary for a quasi-public system in the Seoul bus reform. The Ministry believed routes cannot be run under such a system, whereas we claimed privatized routes was only logical. Additionally we raised a question about the transparency of subsidies paid to bus service companies, insisting on the logic of a semi-public system."*

- Interview with Mr. M, a Seoul public official

## Expressed Conflicts

Expressed conflicts can be said to conflicts between stakeholders that were publicly visible. We will focus on the issues raised and openly discussed in the Bus Reform Public Committee and materials from in-depth interviews with Seoul public officials involved in the bus reform.

Conflicts that surfaced in the public committee in connection with the bus reform are divided largely into three parts. First, conflicts about the bus operation reorganization, such as the restructuring of routes, the introduction of new transport cards, and the introduction of the median exclusive bus lanes. Second, focuses on conflicts due to changes in the bus management system centered on the introduction of the semi-public system. Last are conflicts generated in relation to the reorganization of the fare system.

### Conflicts Due to the Bus Operation Reorganization

- Conflicts Related to the Reorganization of Bus Routes

Existing bus routes were characterized as bending, long-distance, and

overlapping. These routes were reorganized into a dualistic system of main line and branch routes. In this route reorganization draft, various problems came forth as major issues, such as the decreasing number of buses, income management or subsidies, problems securing garages for converting neighborhood buses to branch route buses, and the issue of promoting these route changes to the public.

In particular, there was the concern over potential surplus vehicles and the decreasing number of operating buses and as a consequence the possible dismissal of bus workers would happen when the existing bus route system was changed into the dualistic system of main line and branch routes. Due to these worries, conflicts emerged between Seoul and the Bus Transport Labor Union.

- Conflicts Related to the Creation of a New Transport Card System

In relation to the creation of a new transport card system, there were conflicts between railway authorities including the Korean National Railroad and the Metropolitan Rapid Transit Corporation with the Seoul Bus Operation Union.

First, the reasons for conflicts between Seoul and the railway authorities emerged as Seoul could potentially monopolize transport information, such as current ridership and revenue and therefore profit through its construction and usage. Additionally, there was a concern that staff at data centers operated by each institution might be reduced in the future as their jobs would overlap with the planned Smart Card Data Center set to be created under the new transport card system.

Mr. L, a Seoul public official who was involved in the bus reform explains conflicts between Seoul and the railway authorities in relation to the new transport card system as follows.

*“The railway authorities seemed to fear they would be controlled by Seoul if Seoul grasped the operating data or profits through the card infrastructure. Another reason seems that they were concerned that there*

*must be management changes or automations that would ultimately lead to a reduction of the labor force. Lastly, I felt as if they would take the opportunity to get whatever they desired from the city, resolve personal business issues, or civil complaints.”*

*- Interview with Mr. L, a Seoul public official*

Secondly, another conflict occurred between Seoul and the Seoul Bus Operation Union in connection with establishing the new transport card system. What caused this conflict was the bus service companies' concern that their profit and expense structures might become more transparent, they must also give up the card businesses they invested and operated up to now, and operating costs would not be supported from the card business.

Mr. L, a Seoul public official involved in the Seoul bus reform, explains below the conflict situation between the Seoul and the Seoul Bus Operation Union in connection with the establishment of the new transit card system as follows.

*“The union said it will run the card business, in fact it was running it. The union’s activity and personnel costs were supported via the card business. But they greatly resisted when Seoul suddenly said it would run the card business. It still needs to be adjusted. “*

*- Interview with Mr. L, a Seoul public official*

- Conflicts Related to Extended Operation of the Median Bus Exclusive Lanes

Conflicts expressed in relation to the bus operation system include conflicts with the National Police Agency generated in connection with the extended introduction of the median bus exclusive lanes. The Seoul National Police Agency, despite sympathizing with the purpose and intent of the median bus exclusive lanes, took a passive position in their introduction, as presenting the opinion that there was no problem with safety or communication and by establishing a transport processing plan, such as P turns at regions where the

lanes were introduced.

The conflicts occurred in connection with their extended introduction between Seoul and the National Police Agency, which had retroactive regulatory authority over it, even though the local government chief had authority over transport planning in the regions.

### Conflicts due to the Reorganization of the Bus Management System

The most serious conflicts in the Seoul bus reform came from converting the bus management system from private management to a semi-public operation system which emphasized publicness. Its introduction can be considered to be the core of the conflicts in the bus reform as the right to decide bus routes was returned to Seoul, expenses and profits related to the bus transport were co-managed, and the interests of stakeholders, such as the concerns about workers' status, were intertwined in a very complex way.

The issue over bus routes as part of the introduction of the semi-public operation system brought very deep conflicts between the Seoul government and the Seoul Bus Transport Association. The reason lay with the bus companies that maintained golden routes were guaranteeing a certain profit. These companies were opposed to the reform and searched for extreme countermeasures such as a constitutional trial to maintain the right of bus routes. Seoul considered this aspect an uncompromisable matter of this bus reform.

Mr. M, a Seoul public official who participated in the reform in relation to the route issue, explains the situation as follows.

*“We thought we clawed back all routes, fixed them and allowed bids through the quasi-public system. However we are faced with legal and institutional limits. Weren’t the routes factually private properties? The government wasn’t involved in it and private companies failed or succeeded investing in the bus business. Though routes are public goods, we felt helplessness, except when giving out subsidiaries.”*

- Interview with Mr. M, a Seoul public official

Another conflict emerged between Seoul and the Seoul Bus Operation Union around the right to bid for trunk line routes after the lines would be returned to Seoul. On the one hand the union claimed priority was given to existing bus operating companies and the entry by other bus companies must also be limited. On the other hand Seoul insisted on limited licenses, with which priority was given to existing companies for a set period of six years.

Conflicts generated between them in relation to the introduction of the semi-public system were calculation of income and expense allocation in bus operation. Specifically the problem of calculating transport production costs per km was a large conflict issue. Many conflicts were generated between both parties in spite of several discussions due to different criteria concerning the method of data collection for the calculation of transport production costs, its principles, and standardizing its principles.

Along with the calculation of transport production costs, the profits payment method and the method of providing subsidies were reasons for the conflicts between them. Additionally, managing processing bus advertisement revenue was a factor causing conflicts between both parties. This problem remains one of the major conflicts.

One of the conflicts raised in relation to the introduction of the semi-public operation system was a change in bus workers' employment and salary. Seoul and the Bus Reform Public Committee were limited in handling the change in employment status as it was a dispute between labor and management. But at the same time they could not disregard the problem due to the important role bus workers played in the reform.

The issue of adjusting bus workers' salary was even raised in the committee as it became a controversy over whether the committee would intervene. Mr. I, who participated as a committee member, describes the conflict that came from referring the problem to the committee.

*"Labor and management negotiations are proceeding with difficulties, some members of the committee opposed, asking why the matter was sent to the committee. Bus transport service companies or bus workers stated wage*

*negotiation was an obstacle. The committee acknowledged it and adjusted the bus labor-management negotiation by creating a subcommittee under the umbrella of the committee. “*

*- Interview with Mr. I, a member of the Bus Reform Public Committee*

## Conflicts Associated with the Reorganization of the Public Transport Fare Structure

The public transport fare structure was a factor causing conflicts between the bus transport companies as well as Seoul and private organizations. The former claimed that a rate increase was inevitable in order to normalize the management of the bus system as public transport means and to maintain the welfare of bus workers at a certain level. While the latter claimed that the price level and the burden of bus passengers could not be increased too much. Mr. A, a committee member who took part in the Bus Reform Public Committee, describes conflicts occurring in relation to the bus rate increase as follows.

*“How can balance be reached between Seoul, who sought employee salary increases, bus companies who must generate a profit, and the public who requires better services? This question was related to the expense issue. The price the public had to pay wasn’t given prominent attention. This was because it needed to be supported by the public. However, ultimately we must allow a rate increase, mustn’t we?”*

*- Interview with Mr. A, a member of the Bus Reform Public Committee*

## The 1990s

Late-night seat buses started services in 1992 and exclusive bus lanes were greatly expanded. The buses were more comfortable for passengers as these buses installed cordless card-based public phones, TVs and the reduction of seats to only 40. Especially groundbreaking was the air conditioning systems installed in buses. Direct seat buses with air conditioning were always packed as people preferred them despite their expensive fare. During this period, the reorganization plan for bus routes was shaped and bus routes were arranged preparing for the second phase of subway openings. In December 1995, a bus card system was operated on a trial basis. Riders who bought cards saved a specific sum of money and fares were automatically calculated for each ride. In April 1997, Seoul systemized bus routes to some degree, dividing buses into intercity, trunk, circulation, and town buses, while it decided to reform services of city buses significantly and made adjustments for the routes. The bus mode share amounted to 43.3% in 1990 and was continuously decreasing eventually dropping lower than subways for the first time in 1997 with 29.5%. The Seoul buses that began to lead public transport surpassed streetcars in 1957 before giving way to the subway for the first time in 40 years. By 1998 its share reduced to 29.1%.

In 1991 city bus fares were 170 KRW for adults, 120 KRW for middle and high school students and 700 KRW for seat buses. In 1995, this increased to 320 KRW, 240 KRW, and 700 KRW respectively and in 1998 to 500 KRW, 340 KRW, 1,000 KRW respectively, and 1,100 KRW for luxury seat buses.



**Figure 2.39** A 1994 luxury seat city bus by Hyundai Automobile



## A New Model of Conflict Management



# 01

## Factor Analysis of Conflict Management in the Reform

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Strategies and methods of conflict management are influenced not only by the types of conflicts or circumstances causing them, but also by changes in administrative roles or functions and by the degree of social maturity. Here we shall examine such conflict management strategies, focusing on changes in conflict management techniques along with the introduction of the governance concept that has been widely applied as a new administrative management technique and thus can be considered as an environmental factor affecting conflict management.

### A Factor Due to the Introduction of a Participatory Administrative Measure: from Governance to New Governance

Since the 1980s, various forms of governance have been sought as a new political and administrative philosophy. The concept of governance is understood in several ways; broad, middle, or narrow sense (KIM Seong

Joon, KIM Chan Dong, 2004). The broad sense of governance is seen as limiting the rights and obligations that members of a society have in solving everyday problems society faces. It is based on the basic concept that members of society should demonstrate responsibility and duty to their society in order to achieve common good and therefore should limit their authorities based on that attitude.

The concept of governance, as seen from the middle range, focuses on more effective planning and implementing of policies by states or governments. Governance in a narrow sense can be understood to emphasize networks between the government and civil society and their importance in policy decisions and implementation processes.

This concept is equivalent to that of “new governance” among various concepts of governance Pierre proposes (Pierre, 2000).<sup>19)</sup> The concept has been defined by several scholars. KIM Kwang Sik (2005) defines it as the following:

*“Governance means the way to promote current polices or plans through various actors, such as the government, state, mayors, and civil society, constructing horizontal networks and forming mutual exchanges and cooperating relationships, while moving away from the centralized, vertical, and downward mode of government-led promotion in the past planning and decision-making processes.” (ibid. p. 3)*

KIM Kwang Sik describes the features of new governance based on these concepts: autonomy and interdependence, partnership, mutual cooperation, and the resolution of social problems through adjustment and public forums of discussion. We will apply the concept of new governance that emphasizes the importance of networks between government and civil society with a focus on governance in the narrow sense in order to understand the concept of governance that will be applied for the Seoul bus reform.

In this book we intend to understand governance as “a system to promote public policies in a more participatory and cooperative way through creating

formal and informal networks between participating actors,” moving away from government-led governance based on the concept of governance defined by KIM Kwang Sik along with Pierre’s concept (KIM Kwang Sik, 2005). The new governance, understood in this way, shows characteristics that can be compared with the existing styles of government and administration.<sup>20</sup>

Some features of networks can be mentioned as examples for it. The networks are flexible in that they are formed differently depending on social issues. They show different characteristics than the existing ones that have been recognized as means for the expansion of government’s informal influence, not its formal work.

The mode emphasized by new governance shows a different mode from networks that the existing governance highlights, in that it aims for community participation and democracy through dialogue and negotiation rather than instructions, commands, and efficiency.<sup>21</sup>

With the concept of new governance, we begin to recognize how social actors such as companies, civil society organizations, and residents who were previously neglected or excluded in the construction of networks, now are important governmental as well as policy partners (KIM Kwang Sik, 2005).

New governance embodies direct democracy through the guarantee of substantial engagement of various acting subjects in society, including the public. Therefore, new governance complements the parliamentary democracy that is dependent on representatives who were elected directly.

The background, in which the concepts of new governance have been discussed in the contemporary administration, can be found in environments changing rapidly around the administration. The wave of globalization and informatization has influenced absolute authority, which traditionally has been exercised by the state. The public sector, meanwhile a hidden agent, began to be the object of controversial discussions due to its inefficiencies along with the request of changing the role of government as a policymaker through disclosure of various information that the government kept from being revealed.

This concept of new governance also is being discussed not only as

an alternative to overcoming limitations of New Public Management<sup>22</sup> or New Liberalism<sup>23</sup> that is being expanded as a trend of contemporary administration, but also as a powerful alternative to embody a new form of democracy oriented to dialogues and negotiations through participation in policy formation and implementation.

Furthermore, democratization and the growth of civil society are promoting the introduction of new governance in the administration. Especially, the boom of democratization South Korea has achieved in the past few decades may have been the source of many changes. One of the most impressive changes is the substantial economic growth that has been achieved.

Additionally it is not an exaggeration to say that the growth and role increase of civil society, closely proceeding hand in hand with democratization progress, has been eye-opening. Even in countries where parliamentary democracy systems have long traditions, it is sometimes be called “the fourth branch” following administration, legislation, and jurisdiction due to the influences civil society organizations have in all areas of politics, economy, society, and culture.

This rapid growth of civil society and its expansion of influence in society would be, in part caused by inefficient production and supply of public services. At the same time it is also caused by failure in market economy. But its major cause can be found in the fact that needs or expectations of residents were not satisfied by representative democracy and bureaucratic system.

Fox & Miller expresses this cause as “the representative democratic accountability feedback loop” or “loop democracy” (Fox & Miller, 1995). This evaluation finds its cause in the fact that directly elected politicians and appointed bureaucrats do not properly provide appropriate services the people want and often represent their own interests more than the interests of the people (Box, 1998).

Some scholars have claimed the need and importance of community participation in policy decision and implementation as a measure toward

long-term solutions. Some Northern Europe and South America countries utilizing participatory democracy as an alternative to representative democracy, have found the process to be more concretized particularly through public participation.<sup>24)</sup>

Changes in the fundamental government system and changes in administrative demands are equally desperately needed to build new administrative systems. Recently increasing administrative demands that are due to environmental changes require different supply modes and subjects of administrative services compared to the past. This is because it is difficult to respond in a timely manner to new administrative demands only within the role of the existing government and administration. Furthermore, the existing government and administration cannot sufficiently satisfy such administrative demands.

Furthermore, this diversification of administrative demands and increasing desire towards participatory democracy requires a new search for the role and function of government. Discussions about reestablishing the governments function and role do not merely stay with the readjusting the function of the government. But its readjustment is made also in terms of a search for the function and role between the government, market and civil society as a component that makes up society (KIM Kwang Sik, 2005; Guy Sorman, 2005). In this point the need and importance of new governance as a network is emphasized.<sup>25)</sup>

These changes are fundamentally different from the search for government function and roles that have been promoted for simple government. For instance, under new governance the role of a mediator is more emphasized than the role of a commander, director or controller. That is to say, along with the role of mediator of diverse stakeholders, the state prepares lines of communication between actors in order for various stakeholders to better solve problems (KIM Seong Joon, KIM Chan Dong, 2004).

The introduction of new governance has a considerable effect on the management of conflicts generated due to the conflict management, especially public policies (KIM Kwang Sik, 2005; HWANG Kee Yeon, 2005). These

effects influence not only the approach to conflict management, but also detailed management methods for conflict resolution.

Committee member K, who participated in the Seoul bus and Reform Commission, sought to apply new governance in the Seoul bus reform.

*"There were stakeholders that sharply opposed each other. As a social trend, the role of the bus committee was great. The conflict management may presently be considered a success. I believe it's good to apply this model to other conflict cases. It's the expression of governance seen academically. I wish such a model will be introduced more frequently to provide assistance in cooperation, participation, and collaboration."*

- Interview with Mr. K, a member of the Bus Reform Public Committee

## 02

### Social-environmental Factors that Affected the Bus Reform Positively

#### Omni-Directional Crisis Awareness in the Seoul Bus Industry

What all stakeholders in the bus reform had in common was a critical awareness that the Seoul bus system cannot continue as it is. This awareness, according to analysis, worked greatly in solving of conflicts between both parties. This critical awareness might have considerable influence on understanding the positions of others and searching for solutions throughout the entire bus reform process.

Such omni-directional crisis awareness about the Seoul bus industry contributed not only to create an agreement for the promotion of the Seoul bus reform, but also acted as a decisive factor in solving various pending issues raised. Mr. H, a member of the committee and Mr. M, a Seoul public

official, who were engaged in the reform, point out the positive effects that the crisis awareness had as follows below.

*"The number of bus companies was reduced from 93 to 57. The reason for it was the reduction of passengers. That reduction came, on the one hand, from the fact that many new subway routes were built and private cars bought and on the other hand, from the fact that there was increasing bus traffic congestion that led to passenger decrease and resulted in bankruptcy of bus companies and reduction of buses. The reduction of bus units led to a lot of inconveniences to passengers. There are more and more alternative means of transport and there were of course mergers and liquidations of bus companies. Employees who worked there were dismissed without being paid but surely there was a consensus for the bus reform. "*

- Interview with Mr. H, a member of the Bus Reform Public Committee

*"The bus reform was absolutely necessary and we didn't accept the idea that it was impossible to accommodate. Everyone had a sense of urgency so they could accept this principle. Everyone was aware that the bus companies would fold if nothing changes."*

- Interview with Mr. M, a Seoul public official

## Social Expectations for the Seoul Bus Reform

The changed atmosphere, method of direct negotiations, and crisis awareness in the bus industry were positive forces in the promotion of the reform. Not less important was the widespread positive social consensus for the reform which seems to have acted as an unspoken pressure in overcoming the decisive conflict problems that were raised in the course of promotion.

Everyone involved pointed out the positive role that the social consensus played during stakeholder conflicts raised in the reform process. Thus, having social consensus as a common goal of the reform played the role of a

compass presenting directions to all stakeholders in managing conflicts.

## Interest and Understanding of Other Parties

Interest and understanding among stakeholders have been expressed diversely in connection with the Seoul bus reform throughout the entire process. This became a stepping stone for resolving conflicts.

### Definition

The clue to conflict resolution can be found in stakeholders having an interest in the other parties and understanding them. Taking that as the criterion, to what degree one makes an effort to understand the position of the other party or to what degree one concedes one's own position in relation to them is vitally important. Having interest in the other parties and understanding them as resolving measures for conflict management can be expressed in diverse forms throughout the entire conflict process. For example, they can be shown in various ways not only in the public spheres provided for initial conflict management, but also in the personnel structures and conference processes of participants who engage in the public spheres.

### Interest and Understanding Are Shown in Policymaking and Implementation

Initially, the city's efforts to have an interest and understanding of the other parties in relation to the reform can be found in its policymaking and implementation. It demonstrates converting the previous one-sided policy promotion into cooperative policy promotion as it accepts stakeholders' proposals and brings together a variety of their interests.

This behavior, which the city was trying show the relevant stakeholders, while seeking their interest and understanding related to the reform, can be seen as specifically expressing interest and understanding of them.

## Interest and Understanding Shown in Direct Negotiations among Stakeholders

Secondly, taking interest and understanding of the other parties has also emerged in conferences of the Bus Reform Public Committee during the direct negotiation processes between stakeholders. First and foremost, they appeared dramatically between Seoul ensuring the political responsibility of the reform and the Seoul Bus Transport Association as an axis of interested parties.

They can be recognized in forms of understanding, consideration, and concession for other parties. We can confirm them in the descriptions made by Mr. M, a Seoul public official and Mr. A, a member of the committee. For example, the representative cases are the thought and attitude that the city must employ while helping to resolve difficulties suffered by bus operation companies, as well as recognizing route bid rights must be given to existing bus companies that invested considerable capital in bus operation. This is done while knowing a limited number of licenses exist and that the city must guarantee certain profits in cases of deficit.

Additionally, the city must convert from a one-sided, public institution-centered process into bilateral verification procedures, while deciding to use a different accounting firm for Seoul than the union to calculate bus production costs. This may be seen as another case of interest and understanding as it otherwise would be difficult for them to make such a decision.

## Interest and Understanding that Appeared in the Establishment and Operation of the Bus Reform Public Committee

Such interest and understanding among the stakeholders can also be recognized in the Bus Reform Public Committee. Confirmed of this is seen in its establishment and operation as well as in its policymaking and implementation process.

Firstly, they can be recognized in the establishment of the committee. The committee brought together various stakeholders substantially associated with the reform. As the committee included all stakeholders in relation to the

reform, interest and understanding from its establishment can be seen.

Secondly, they can be found in its operation. They can be recognized in the free and honest atmospheres in its meetings, in listening to claims of the other parties and the modes of its meetings were balanced.

According to interviews, most participants stated that the meetings were held very freely, where they could present all opinions honestly. These meeting atmospheres might be not possible without the precondition of interest and understanding of each individual participant. The free and candid atmospheres can be felt in the sincere attitudes of the participants. Most meeting participants who granted interviews evaluate satisfaction with the other parties' listening attitudes during arguments. From this point of view, the listening attitude during other parties' arguments may be possible only with the assumption of interest and understanding of all participants.

It can be said that balanced and fair modes of meetings shown by the moderators well reflect the interest and understanding about all committee participants. If the moderators are biased, they can be recognized as expressing only the interest of one side. However, their objective and fair modes of committee meetings are show they have an interest and understanding in the other parties.

### Interest and Understanding Shown in the Policy Promoting Process

We can observe interest and understanding also in the policy promoting process. For example, relevant departments in Seoul holding authority over final policy decisions regarding the bus reform, have shown patience in implementation through additional negotiation and adjustment. This was done by reaching consensus through direct negotiation among the parties or the committee.

They can also be recognized in accepting the committee's adjusted results. For instance, Seoul showed interest and understanding of the bus reform stakeholders by showing its willingness to accept the adjusted output of the committee despite having different result numbers.

# 03

## Managing the Seoul Bus Reform Conflicts

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### Seoul's Internal Conflict Management

In the internal conflicts of the Seoul, descriptive conflict management techniques like personnel exchanges were utilized at the same time with the normative ones, such as education and meetings with top policymakers. Both were properly utilized so city public officials would have a clearer understanding about the bus reform.

#### Use of Normative Conflict Management Strategies

The internal conflicts of Seoul do not seem so great, except at the early stage of the reform. At that point they were mainly attributed to practical problems about promotion method ideas or regulations, rather than the bus reform goals.

The strategies for resolving these internal conflicts were normative, which maintained values through more active behaviors, such as establishing a cooperative goal through reform contents education, changing circumstances, and persuading those in charge to lead open discussions among the conflict parties.

The city focused on a variety of normative strategies, such as educational videos to improve public officials' understanding, reaffirming goal awareness, clarifying bus reform intentions, and creating meeting opportunities between the highest policy decision makers and officers in charge to improve employee morale.

#### Use of Descriptive Conflict Management Strategies

Along with normative conflict management, descriptive strategies in the form of staff exchange were used at the same time. In this way the Seoul

Metropolitan Government resolved its internal conflicts by properly utilizing normative and descriptive conflict management strategies.

## Conflict Management among Stakeholders

### Introduction of a Substantial New Governance System

A form of new governance was introduced into the Seoul Metropolitan Government as a measure to prevent and resolve conflicts in connection with the Seoul bus reform. It was a change from the existing form of public official-centered policy promotion. We examine the effects of this introduction on bus reform conflict resolution, focusing on the creation of a policy organization operating in committee and democratic formats.

### Construction of a Policy Consultative Organization That Brings Stakeholders Together

Many people participated in the Bus Reform Public Committee: members of the Seoul Assembly that represents Seoul residents, the representatives of the Seoul Bus Transport Association and the local bus transport union, representatives of the Bus Transport Labor Union, transport experts, representatives of civil society organizations, the National Police Agency and so on. The bus reform is an application example for the concept of new governance as it moves away from existing public official-centered policy decisions and instead resolves conflicts through consultative policy organizations.

In particular, the construction of a consultative body policy organization as under new governance, shows a different form from traditional governance, which excluded stakeholders. With the participation of such parties that will be directly influenced, such as the Seoul bus companies, the local bus union, the representatives of the Seoul Bus Transport Association

and civil society organizations, it is different from customary (or old) governance case in that the representatives who speak in opposite standpoints as not only users but also beneficiaries of the reform have participated in the reform from the early stage of policy formation.

### Democratic and Open Operation of Policy Consultative Organization

Operation modes newly applied by the consultative body, as well as construction of the policy consultative organization through the introduction of new governance have had a positive impact on bus reform conflict resolution. Unlike conventionally conferences and formally meetings, the Bus Reform Public Committee became a place of substantial discussions about common interests and agendas. Candidly expressing opinions on important issues contributed greatly to facing the problems at hand in a more positive, future-oriented, and problem solving-focused way through understanding of the other parties and compromises. This is a stark contrast as previously confrontation and opposition have been the norm. The democratic mode, in which discussion, arbitration, and consent have been applied, is judged to have acted positively to resolve conflicts generated by the reform through new governance.

In addition, along with formal meetings through various conferences, establishing and using informal networks among stakeholders worked to realize new governance bringing significant influence on mitigating acute conflicts that may occur between them thereby making the consultative policy organization work smoothly.

Informal contacts between relevant parties were utilized as part of new governance in relation to the reform. They can be said to be separate from the formal operated committees in the respect that they provided chances to understand other parties' common interests, resolve misunderstandings resulting from incorrect information, or to reconfirm the will to solve reform problems.

## Active Use of Direct Negotiation Strategy

Conflict management among stakeholders can be divided largely into before and after the establishment of the Bus Reform Public Committee. Before its establishment conflict management depended on direct negotiations between the stakeholders.

### Conflict Management Strategies between Seoul and the Seoul Bus Operation Union

#### Changed Attitudes and Methods of Negotiations: Frequent Face-to-Face Contact and Candid Dialogues

Before the establishment of the committee, conflicts appearing in relation to the bus reform were treated mainly with direct negotiations among the stakeholders. These direct negotiations occurred more frequently due to the failed test introduction of the median exclusive bus lane on the Dobong-Mia Road.

Mr. M, a Seoul public official, experienced direct negotiations about the need and direction for the bus reform. He evaluates that he shared the collective consciousness about the reform through frequent face-to-face contact and candid dialogue with representatives of bus transport companies, attending joint workshops in Chuncheon City, and having the opportunity to share improvement concepts for bus companies. Mr. H, who took part in some direct negotiations in relation to this, makes a positive assessment of the city's changed attitudes for negotiations.

#### Guarantee for Substantial Fairness

Above all, a guarantee for substantial fairness for the Seoul Bus Operation Union played a decisive role in conflict resolution between the city and the

union. Contents included the period of limited licenses would be extended from three years initially to six years, which was accepted on the condition of a single extension after three years, as well as the guarantee for certain profits, the entry of new suppliers into mainline route bids was not permitted, vested rights of the existing bus operation companies were maintained during a certain period, and ‘reasonable profits’ were guaranteed to cover deficit due to bus operation.

Furthermore, one of the substantial fairness guarantee measures was to properly utilize expert groups. Seoul Metropolitan Government and the union submitted different research results respectively and tried to find a middle ground through general committee the subcommittee meetings. In addition, initiatives were taken on studying overseas cases in order to seek alternative improvements for the welfare of bus workers, who expected a change of employment status due to the semi-public operation system.

Above all, the guarantee for substantial fairness might play an intragal role in connection with transport production costs. This guarantee as a strategy worked to resolve related conflicts through the following processes.

*“Discussions about the adjustment of production costs began from the second half of 2003. When I went to Curitiba City in Brazil, the Brazil government gave money depending on the operation achievement. The concept provides expenses according to service. If done like in this way, no bus drivers are neglected. So we decided to adjust the production costs to a 100 km unit. The adjustment of production costs was a theme that caused sharp opposition. So Seoul and the bus union made a consultation on the basis of the drafts that came from awarding contracts. The union came up with 600,000 KRW and Seoul came up with 420,000 KRW. After their consultation the standard cost was decided to be 453,000 KRW. It was not ideal, but as a second best scenario, I think, both Seoul and the union was satisfied with it.”*

*(Interview with Mr. M, a Seoul public official)*

## Conflict Management Strategies between Seoul and Relevant Organizations

### Utilization and Promotion of Human Networks

Human networks acted more efficiently than systematic ones in solving conflicts with the National Police Agency, which were generated in relation to the introduction of the median exclusive bus lanes. Problem awareness and purpose sharing between the city and departments in charge of the lanes contributed greatly to overcoming limits of the weak institutional cooperation system and the introduction of the lanes.

Promotion activities about the bus reform, such as producing and distribution of promotion videos to the officials of the National Police Agency were used effectively in solving conflicts generated between the organizations relevant to the reform.

### Persuasion and Policy Confrontation

The conflicts with the Ministry of Land, Infrastructure and Transport that occurred in connection with the introduction of the semi-public operation system were resolved by policy confrontations, such as actively expressing the benefits and necessity of the project to the Ministry.

These confrontations changed the ministry from an oppositional institution to an institution that supported and cooperated with the Seoul bus reform and served as momentum for the case in Seoul to apply to other local governments.

### Adhere to the Principle

The conflict management strategy to adhere to the principle issue was applied to the conflicts between Seoul and railway authorities around the creation of a new transport card system. The railway authorities intended to use the

construction of the new transport card system as an opportunity to solve their complaints to the city or to ensure financial support in return for securing portions of the system or yielding its construction to the city. But they adhered to the principle issue and were able to resolve the conflict that existed.

## Conflict Management by Third Party Mediation: The Bus Reform Public Committee

A concrete form of the introduction of new governance was embodied in the Bus Reform Public Committee. The committee consisted of 20 individuals and was set up as third party conflict mediation on August 26, 2003. The members consisted of one Seoul resident, one person from the Seoul National Police Agency, two people from the Seoul Bus Transport Association, one person from the Seoul Metropolitan Stownbus Corporation, one person from the Seoul Bus Labor Union, four people from civil society organizations, six transport experts, one accountant, and one lawyer.

In the reform, committee activities were widely evaluated to be a worthy example of conflict management, not only in terms of a practical application of new governance, but also in the creation and operation of the committee. In this regard it is a worthy model for urban conflict management. We will try to evaluate the features of the committee that achieved these results.

### The Structural Aspects of the Bus Reform Public Committee

- Implementation of Procedure: Ensuring Representation and Participation of Stakeholders

One important element in conflict resolution is the implementation of procedure that encourages relevant stakeholders to participate in the policy decision process. The first element is for all stakeholders who will be influenced by the reform to participate with their representativeness. If this is realized, the committee can have a very desirable structural form.

However, there is controversy over whether residents, as substantial and final consumers, can fairly be represented by civil society organizations. This question can be answered in the positive since the organizations that participate in the committee have put great efforts on public transport focused on buses over an extended period of time and an elected member of the Seoul Metropolitan Assembly who was directly participated as well.

The members were posed a question on how conflicts were viewed in the committee. Most respondents responded positively about raising and solving problems. Previous research shows there would be great difficulty in solving issues if the individuals had negative feelings toward the committee. Additionally, conference attendance rates and the interests and enthusiasm shown in the conferences may have become an important basis for accomplishing the bus reform.

### Operational Aspects of the Bus Reform Public Committee

The operational aspects of the committee also greatly contributed to resolutions due to structural aspects.

- Neutrality of Mediators

The neutrality and objectivity of mediators, the willingness to solve problems and the creation of a free and sincere meeting atmosphere are emphasized as they are keys to conflict resolution through mediation by third parties. The neutrality of mediators played a great role in conflict resolution and all but one interviewed members of the committee rated the chairman as an appropriate conflict mediator.

- Starting from Points of Agreement

More than anything in the management of the committee, operating towards points of agreement played a significant role in conflict resolution. It can be said that it played an important role in postponing problems with diametrically opposed interests, problems requiring additional discussion or

meetings, and in forming an atmosphere for conflict resolution.

- Method to Adjusting Various Opinions

Conflicts arising in the Seoul bus reform were resolved through various forms of meetings. Opportunities for expressing opinions and allowing one's own views to be adjusted were presented in formal meetings, small scale subcommittees, and informal occasions and were essential in solving conflicts.

- Conversational Atmosphere of and Listening Attitude

Above all, listening to other parties, concentration of topics, and free conversational atmospheres ought to be taken in consideration. Members who participated in the committee at this time have all made a satisfactory assessment in this regard. A conversational atmosphere and listening attitudes have gone a great way towards conflict solving.

- Gaining Trust from the Bus Reform Public Committee

Seoul's attitude about the role of the committee also played an important role in resolutions. While helping it to operate in a substantial way, the city government utilized the agreements made as criterion for implementing reform policies despite its limitation as a device for policy decisions. In this respect the city received trust which provided it a substantial role instead of a nominal one. This gave considerable influence to the bus reform conflict resolution.

- Accessibility to Information

Information needed in consultations, discussions, or policy decisions had to be provided at the proper time. According to interviews with members of the committee, preparedness, sincerity, sufficient provision of information, and the level of information released were essential in the policy decisions related to the reform. We know that the release of information and their accessibility provided an important basis for understanding the conflicts brought by the reform, understanding the source allowed for the search for a resolution.

## Leadership of the Policymakers

A quality leader in contemporary society, as the mayor of Seoul showed in the bus reform, is a driving force in promotion regardless of success or failure (KIM Kwang Sik, 2005; SHIN Cheol Young, 2005). One of the main reasons of failure in the 1996 and 1997 Seoul bus reforms, was weak promotion from the leadership promoting the reform (Ddanzi Consumer Protection Board, July 2004). From this point of view, the driving force is resolutely behind the leader promoting the reform.

The mayor of Seoul moved away from traditional, administration-led decision making and specifically embodied a new form of city government operation, in which civil society organizations, expert groups, and stakeholders participate directly. In this respect the leadership of the final policy decision maker who tries to minimize conflicts can be evaluated as contributing appropriately to conflict resolution. This is because this leadership enabled the concept of new governance to be substantially introduced to the Seoul Metropolitan Government. Here new governance is a way to solve conflict generated in relation to policy promotion through discussions and consultations with relevant parties (KIM Kwang Sik, 2005).<sup>26</sup>

Distinct differences can be found in representative examples, such as compared with the Public Committee on Cheonggye Stream Restoration. The operation of the Bus Reform Public Committee is an exemplary case for new governance unlike the Public Committee on Cheonggye Stream Restoration, when the evaluation from the policy decision processes includes not only the stakeholders who can instigate conflicts but also experts and civil society organizations.

## The Willingness and Passion of Public Officials

The causes of conflicts are very diverse. A variety of these causes requires business consultations and policy coordination not only between persons in

charge, but between various departments. Especially, wide influencing public policy can always have the potential to cause conflicts.

There ought to be a willing and passionate zeal of relevant public officials who try to resolve a diversity of conflicts generated in the process of policy decision about the reform, its implementation, and strive to achieve policy goals. Without passion from the public officials, the Seoul bus reform might have been impossible. This passion from the Seoul City's Department of Transportation and other relevant departments became the solid foundation for resolving the complex conflicts generated in the bus reform.

Such passions and desire for better policy made not only the Seoul public officials problem solving oriented, but also their desire exercised great influence on conflict resolution. This also made the opportunity to move away from the traditional way of resolving conflicts, such as the DAD policy, and to introduce more various and effective conflict resolution methods. City officials related to the reform promoted direct negotiations and tenacious persuasions before the bus reform came to surface in order to resolve conflicts with stakeholders and relevant institutions. In this respect, their hard work should be essential as without them the success of the reform would have been remote. The leadership of the transport policy experts in relation to the Seoul bus reform contributed greatly not only to project adjustments and integrations from both public officials and departments, but also the realization of the reform in easing conflicts among stakeholders.

## 04

### **The Seoul Bus Reform vs. Cheonggye Stream Restoration Project**

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Removing traditional strategies, the Seoul bus reform presents a variety of conflict management. It can be compared in several aspects with other public policies conflict management, especially related to the Cheonggye Stream

Restoration Project. Through comparison of the two projects we can examine not only characteristics of each project's conflict management strategies through comparing the methods of each individual business, but also obtain great implications for Seoul's conflict management strategies thereafter.

## Commonality

### Types of Conflicts between Groups

Conflicts related to the Cheonggye Stream Restoration Project can be classified as their type between groups, in that they are generated in the enforcement process between the Seoul Metropolitan Government as project agent and groups of merchants as stakeholders influenced by the restoration project (PARK Min Jin, 2004). The conflicts related to the bus reform can be also classified as 'conflicts between groups' in terms of conflicts between the city government who tried to promote the bus reform and bus operation companies and their workers who will be directly influenced.

### Public as Final Beneficiaries

The direct beneficiaries of the Seoul bus reform along with the Cheonggye Stream restoration is the public. Both projects include various stakeholders but similarity can be found in the public as the final beneficiaries.

### Absence of Prior Guidelines for Conflict Management and Dependence on its Traditional Methods (Application of DAD Model)

Both conflict cases fell short of predicting conflicts in project promotion and conducted promotion in the absence of management guidelines or strategies. Additionally, both were dependent on traditional promoting methods for the establishment and implementation of public policies in connection with

complexly intertwined relationships. In the case of the Seoul bus reform this situation applies only to the early stage of the reform; the test introduction of median exclusive bus lanes with experienced conflicted was between the stakeholders.

## Differences

### Differences of Conflict Subjects

The constitution of the stakeholders is a factor that influences the difficulty level or degree of conflicts. The difficulty level of conflict management is also influenced by it. The stakeholders can be divided largely into direct and indirect. The direct stakeholders are groups consisting of persons who enforce relevant policies and persons who are influenced economically and materially and in terms of service use and policy, whereas the indirect are a group of persons who are influenced indirectly by the results of these policy enforcements.

If both conflict cases, the stakeholders in the Cheonggye Stream Restoration Project consist of the Cheonggye Stream Commercial Rights Protection Committee comprised of merchants in Seoul and at the Cheonggye Stream as well as the Task Force for Cheonggye Clothing District, whereas the stakeholders in the Seoul bus reform are composed of different ones like the Seoul Metropolitan Government and Seoul Bus Transport Association. Especially in the latter case the union does not take the characteristic of a direct policy partner with the Seoul city, but is influenced directly due to the reform. In this respect it can be understood as a direct stakeholder.

### Forms of Conflicts

Both cases show somewhat different forms of conflicts, when looked at in terms of participation of stakeholders, positive functions, responsible behaviors of participants, reinforcement of interrelationships and

communication. That is to say, while the Cheonggye Stream restoration project can be classified as a destructive form of conflict, the Seoul bus reform can be thought to take a constructive form of conflicts.

In the case of the Cheonggye Stream restoration project the participation of the stakeholders in policy decision and implementation was somewhat insufficient, the conflicts between them acted rather as a hindrance factor than a factor that would work positively in the project. The stakeholders who participated in talks in relation to the restoration project did not act with responsibility in relation to it and the project acted rather as a momentum, where the interrelationships between the city and the Cheonggye Stream Commercial Rights Protection Committee are worsened than provided an opportunity to intensify them. The project was not reciprocal, but one-way conversation-centered. In this respect the form of conflicts can be classified as a form of the destructive conflict management.

On the other hand, those who participated in the bus reform at the stage of policy decision and implementation were not only stakeholders, but the third party mediators. The conflicts between the stakeholders acted positively in promoting the reform successfully and all stakeholders participating in the reform acted responsibly on the assumption of the Seoul bus reform. Besides, the Seoul city and the Seoul Bus Transport Association avoided confrontation composition, taking opportunity of conflicts in the reform, provided opportunities to reinforce their interrelationships and trust and broadened reciprocal understanding through two-way dialogs. In this respect the conflicts between them can be classified as forms of constructive conflicts.

#### Differences in Causes for Generating Conflicts

Form or intensity and resolution degree of conflicts can appear in a different way depending on the causes for conflict generation. There were a lot of controversies about the goal of the Cheonggye Stream restoration as of in itself. So, what came fore preferentially in the restoration project was rather the problem of disagreements of opinions, than that of methods or

means to solve problems. After reaching the conclusion that the ultimate goal would be to restore the stream, what acted as major causes of conflicts were the compensation of business loss of the merchants, who ran business around the Stream, the device of alternative sites, and measures for transport improvement during the construction period.

On the other hand, for the case of the Seoul bus reform a social agreement about the ultimate goal of the bus reform ensured a very broad base. Thus, we can see that only disagreements about means and methods to implement this goal, such as the guarantee of profits for the bus operation companies and the improvement in welfare of bus workers were acting as major causes. It is judged that the conflicts could be relatively easy to be resolved in the cases for the conflicts that were generated due to the means for achieving a goal, about which a social consensus was formed. Seen from this point of view, the conflict management for the cases of the bus reform was somewhat easier than that for the cases of the Cheonggye Stream restoration.

### About Participation of Stakeholders

The problem of the participation of stakeholders is not less important to understand and resolve conflicts than the problem of causes generating them. In circumstances, where the importance of stakeholders in the conflict management seems to grow more and more, the Cheonggye Stream restoration and the Seoul bus reform project have a lot of implications in terms of conflict understanding and management. They are as follows, when compared as to whether the stakeholders of both projects participated or not.

The Cheonggye Stream restoration project shows that the participation of the stakeholders was not guaranteed institutionally and practically. Especially, it shows that the participation of the merchants surrounding the Cheonggye Stream, who could be said to be substantial stakeholders of the project from the planning or the enforcement stage as its early phase that was a starting point for conflict management was not taken into consideration. Besides, the function of conflict adjustment between action subjects that is stressed in

terms of new governance was relatively weak (PARK Myeon Hyeon, 2004).

The Seoul bus reform shows that the stakeholders affected by the bus reform all participated from the stage of forming ideas and concepts to the stage of planning and implementing. This participation of stakeholders over the whole course of the reform not only changed misunderstandings, that can be generated between them due to the reform, into understanding, but also contributed greatly to resolve conflicts efficiently and to promote the reform effectively.

### Differences of Conflict Management Methods: Intervention of a Third Party

The two cases show, that they use different management methods, in that they utilize the methods of negotiation and mediation as the main styles of conflict management. Early in promoting the Cheonggye Stream Restoration Project, the city depended on traditional DAD conflict management and this strategy was promoted with insufficient participation of the merchants around the stream. This led to physical confrontations; a negative strategy. The active and direct efforts for negotiation, shown by the Cheonggye Stream Commercial Rights Protection Committee, the Task Force for Cheonggye Clothing District, and the Seoul Metropolitan Government did not move far from DAD despite being worthy of a trial. It also appeared that the restoration project focused primarily on conflict pre-management than post-management.

On the other hand, the Seoul bus reform depended mainly on the conflict management system of mediation from Bus Reform Public Committee as a third party. This third party played the role of solving misunderstandings or untangling issues and helped through constructive dialogues with the stakeholders. In addition, the reform shows that it was dependent on various systems of conflict management unlike the Cheonggye Stream Restoration Project. The city managed conflicts through the rationalization of conflict management processes, such as adjusting them in advance and ensuring the participation of stakeholders through direct consultations between Seoul policymakers and bus operation companies.

The Seoul bus reform show that it managed conflicts through hybrid ADR, in that it utilized a mediation system by the intervention of the third party Bus Reform Public Committee and direct talks which was a major step forward over traditional DAD. The reform managed conflicts through the rationalization of participation processes, such as ex-ante conflict management and the guarantee of participation, it moved away from DAD, on which the Cheonggye Stream Restoration Project was dependent.

### Legitimacy of a Policy

While the restoration project searched for the legitimacy of policymaking and implementation of technical planning, the bus reform perused legitimacy and rationality in democratic policy decisions through communication among stakeholders. In this respect it can be understood that the dependency on hybrid ADR, using negotiation and mediation as ADR, worked as the background of the bus reform's conflict management.

### Role of Civil Society Organizations

In spite of the various opinions that people have about the functions and the role of civil society organizations in the policy decision making process, there is no denying that the civil society organizations play many roles in the process of decision making. Not only the restoration, but also the Seoul bus reform project was no exception. Their support and criticisms in both projects had much influence in conflict management.

### Problem and Role of Committee Representatives

Both cases show different aspects in the constitution and operation of the committees. The Public Committee for Cheonggye Stream Restoration Project showed a certain limitation in stakeholder's representation as being composed mostly of experts in each field. Such a constitutional limitation

of the committee acted as a cause for generating the results that came from its relatively weak function in mediating conflicts between the stakeholders (PARK Myeong Hyeon, 2004).

The Bus Reform Public Committee was an organization that mediated the Seoul bus reform and properly reflected the constitute stakeholders. The committee provided the basis for actively playing a leading role in helping to adjust and manage potential conflicts by ensuring various stakeholders participation.

### Scale and Organization System of the Committee: Top-down vs. Bottom-up

The scale of the committee, no less than constitute representation, is one of the elements taken in consideration in carrying out effective operation and function. Though the ideal scale differs depending on the theme or operation,

**Table 2.11 Comparison of conflict management in the Seoul bus reform and the Cheonggye Stream Restoration Project**

Classification		The Cheonggye Stream Restoration Project	The Seoul bus reform
Similarities	Types of conflicts	Conflicts between groups	Conflicts between groups
	Ultimate beneficiaries	Public	Public
	Techniques of early conflict management	Decision-Announcement-Defense(DAD)	Decision-Announcement-Defense (DAD)
Differences	Conflict subjects	Seoul Metropolitan Government and merchants around Cheonggye Stream	The Seoul Metropolitan Government, Seoul Bus Operation Union, Bus Transport Labor Union
	Forms of conflicts	Destructive ones	Constructive ones
	Causes of conflicts	Goal conflict	Means conflict
	Stakeholder participation or not	Stakeholder exclusion	Participation guarantee
	Major system of conflict management	Bargaining	Mediation by third party intervention
	Legitimacy of policies	Rationality and technical planning	Democratic decision-making of policies
	The role of civil society organizations	Critical position	Leading position
	Representation and role of the committee	Weak representation, weak adjustments,	Insuring representation and coordination
	Scale of the committee and organization system	About 100 members, top-down	20 members, bottom-up

a committee composed of too many members is possible to act as a hindrance for performing effectively their role. When viewed from this aspect, the Bus Reform Public Committee had different efficiency as it consisted of 20 members, whereas the Public Committee on Cheonggye Stream Restoration had a massive 100 members.

Both committees took on different organizational aspects. The Public Committee on Cheonggye Stream Restoration and Seoul Metropolitan Government took top-down roles, while the Bus Reform Public Committee took a bottom-up mode which allowed civil society organizations to play a leading role.

These similarities and differences had great influence on conflict management results. They will have considerable influences on managing various future conflicts that will arise and search for solutions for them (Table 2.11).

## 05

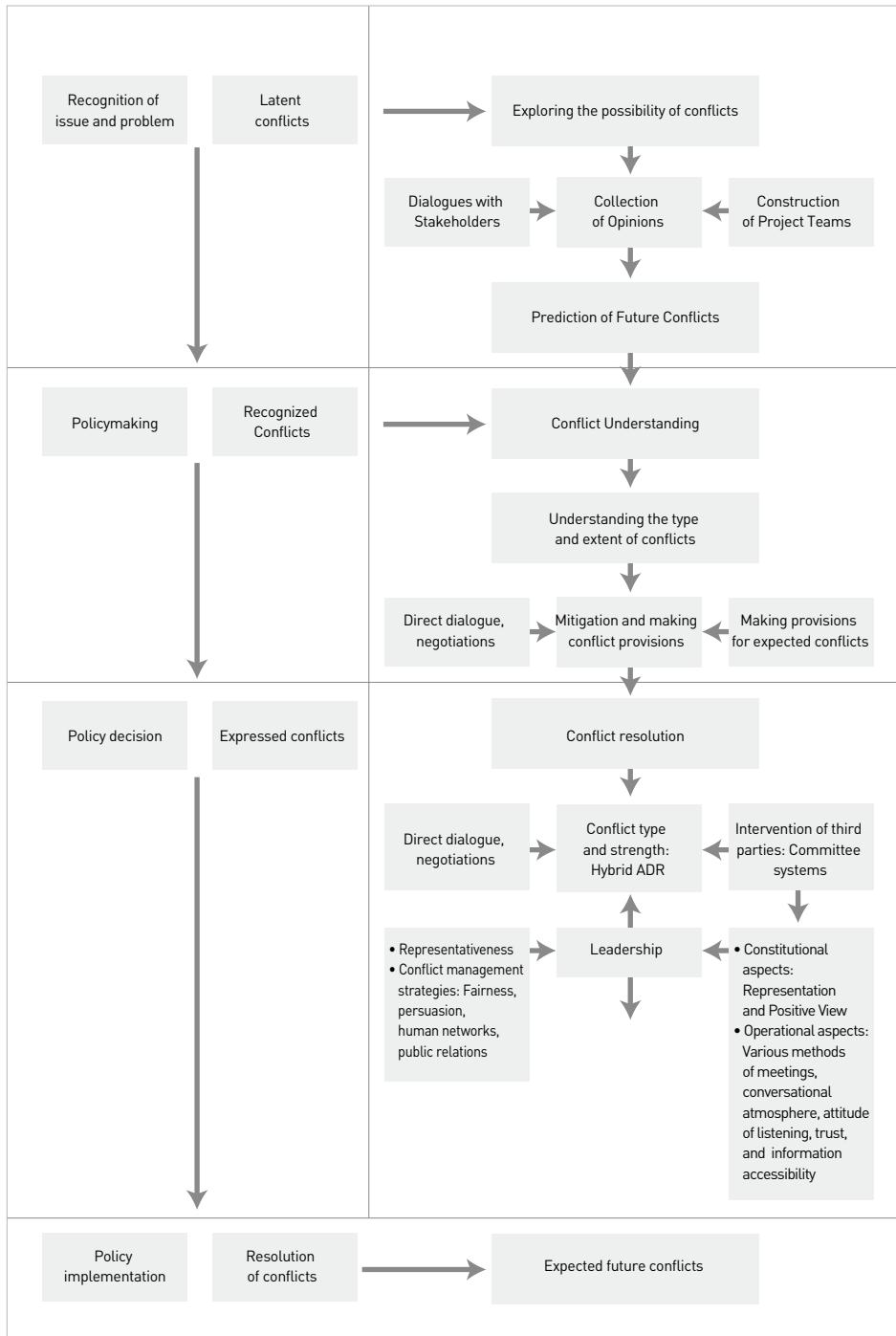
### A New Model of Conflict Management

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The Seoul bus reform, as a case for the conflict management can be evaluated to provide us a lot of implications. Especially, we need to have to use more widely this case, not only in order to resolve effectively the conflicts that are growing complicated and diversified according to changes in administrative and social environments, but also to use them more positively towards contributing to the problem resolution.

We will present here a model for the public conflict management, using this case as a representative example for it. The model here presented is judged to prevent the conflicts in advance and provide a lot of implications to manage more effectively the generated ones, though the model can be not said to be applied to all cases (Figure 2.40).

The model for a new public conflict management that is presented through the Seoul bus reform can give many suggestions in terms of not only



**Figure 2.40** Possibility for conflicts under new model for public conflict management

preventing conflicts, but also effectively managing conflicts coming to surface. This new model for the public conflict management can be applied to the actual management through the following processes.

## The importance of Conflict Prevention

The preventive aspect in public policies must be emphasized above all. Even once small conflicts surface and are then highlighted as problems, they are not resolved easily. The basis of this lies in the importance of actively recognizing and preventing conflicts early on rather than avoiding them. It is greatly important to examine possible latent conflicts which could occur in the future. Potential and expected conflicts must be grasped through conversations with potential stakeholders, who will be influenced directly or indirectly from relevant policies and project teams.

The search for latent conflicts is important as to minimize and prevent them by reflecting them in policy and provide important information for grasping expected conflicts and preparing proper countermeasures.

## Grasping Specific Conflicts and Seeking Countermeasures

Grasping various forms and degrees of conflicts is required as most public policies have a very high possibility for the conflicts generated by their enforcement to be expressed inevitably. The grasping of those conflicts can be embodied in policymaking.

Conflict management ought to be specifically reviewed in two directions: the application of direct dialogues and negotiations, largely to conflict mitigation in the stage of policy-making and preparation for countermeasures, considering cases where conflicts are hard to manage with these methods.

## Conflict Resolution

The third stage can appear concretely in policy decisions. It includes cases where conflicts are specified in a very sharp way. This stage specifies and applies countermeasures prepared in the second stage. This hybrid ADR mixes and uses various conflict management techniques suitable to the complexity of public policies and diversity of relationships in contemporary society, despite differences depending on the degree and form of conflict.

The following points in the application of the adjustment method by direct negotiation and intervention of third party as a complex and alternative conflict management system can be said to work as important factors that determine the success or failure of a conflict management system.

- Stakeholder representation ought to be sufficiently reflected in using the strategy of direct negotiation. This is because dialogue and negotiation with individuals or groups, who represent direct interests of conflicts, can ensure legitimacy on matters to be decided. Additionally the preparation for measures to guarantee substantial fairness, persuasions, the proper use of personnel networks, and promotion of alternatives in the case of direct negotiations ought to be taken in consideration in order that direct negotiations can carry out the proper function as a useful strategy of conflict management.
- The following matters must be taken in account honestly in term of the organizational and operational aspects and that of reciprocal trust in the case of intervention of a third party.

### The Organizational Aspect

- Representation must be ensured from the organizational aspect that the committee represents interests in reality and in name, sufficiently including the stakeholders. To do this, it consideration must be actively taken to constitute the committee in a bottom-up, not top-down style.

- An important factor is that the committee consists of persons who have more positive views about conflict management in light that inclinations of its members play a very important role in its operations and results.

## The Operational Aspect

- The Importance of Ensuring Neutral and Objective Conference Operators

The role of the committee chairman or conference operators is very important in operation of the committee. This is because results of conflict management can differ depending on the operation styles of its leadership. It is of great importance to maintain neutrality in which the chairman or conference operator is not biased to any side.

- The Need for a Strategic Conference Operation

Conference operation can require a somewhat strategic approach. For example, it is necessary to have a little more time to go through a cooling period as certain matters can damage the conference atmosphere due to sharply opposed opinions. Also efforts are needed to induce a positive atmosphere to reach agreements or face matters that are to be resolved.

- Taking Advantage of Various Forms of Conference Systems

It is necessary to take advantage of various forms of meetings, using not only formal conferences, but also informal meetings and opportunities for mutual understanding and opinion adjustment as ways toward excellence of operation of the committee.

- Ensuring Access to Information

The sufficient and objective provision of relevant data is a significant element of conflict management in order to judge accurately and confirm facts. The damage of objectivity of provided data or the flow of information in favor of one side encourages distrust rather than problem solving and distrust intensifies conflicts.

- Maintaining an Attitude of Listening to the Other Party

A straightforward attitude and an attitude of listening to views of the other party cannot be over emphasized. It is again stressed that besides a conference atmosphere the committee constitution is important in forming these attitudes as they are influenced by discussion techniques of participating members.

### Relationships of Mutual Trust

Mutual trust between stakeholders or between participants ought to be considered as the beginning of conflict resolution and thus the path to ending conflicts. Such trust influences participants' reputation and may be influenced by the attitudes or behaviors shown in a conflict solving process. Policy decisions made through consensus, ensuring procedural rationality of enforcement methods, candidly expressing opinions, understanding other parties and having a listening attitude toward them, objective provision of information, and neutral conference operation all bring positive effects toward forming mutual trust between participants. From this aspect the importance of substantial committee operations must be emphasized along with its organizational and operational aspects.

The 2000s will probably be expressed as the era of the median bus lanes. According to an analysis by the Seoul Metropolitan Government in December 2004 fruits of the bus reform have materialized in a 65% increase in bus speed and 7.3% increase in bus passengers through a combination of the median exclusive bus lane system and bus reform.

The bus culture reform has come, as acknowledged by the median bus lanes. Passengers do not need to chaotically run to catch a bus. They need only to wait at a bus stop. Seoul public intercity buses are starring in their golden age, being able to quickly know bus operating information as provided by the introduced intelligent transport systems (ITS).

## The 2000s

The 2000's could be expressed as the era of median bus lanes. According to an analysis conducted by Seoul in December 2004, the results of the median exclusive bus lane system and the bus reform were visualizing as both the average bus speed and passengers increased by 65% and 7.3% respectively. With stabilization of the median bus lane system bus culture also changed as passengers started to wait in line instead of running to catch a bus. We are facing another golden age for Seoul public intercity buses as we receive fast and correct bus operating information with the introduction of an intelligent transport systems (ITS).



Figure 2.41 Four types of intercity buses newly organized in 2005



## How Conflict Management from the Seoul Bus Reform Impacts the Seoul Metropolitan Government



# 01

## Implications

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The Seoul bus reform, as the representative model for the conflict management has more than a few implications for the Seoul Metropolitan Government. The reform's conflict management, through which conflicts generated by its public policies were effectively managed, has great implications for the city government.

Above all it brought the opportunity to confirm conflicts did not have to be a negative force in policy decision and implementation. The popular conception was that conflicts ought to be avoided as much as possible because they frequently brought negative actions. But the reform showed there is a positive aspect as they can bring substantial help to problem solving, depending on how they are used.

In addition, this positive view about conflicts provides the opportunity to spread recognition that the construction of a symbiotic or cooperative resolution system will benefit not only stakeholders, but also society as a whole through their smooth resolution.

Conflict management in the bus reform presents a useful model to manage or resolve the conflicts generated by urban policy more effectively. Furthermore, this case can be a useful model for constructing

an urban management system, through which this model can be legally institutionalized. Through it conflicts are prevented in advance and generated conflicts can be minimized.

The case also gives some suggestions to the city government, in that the maintenance of trust and cooperative relationships among stakeholders built in relation to the reform is very important for its duration.

Finally, an ideal conflict management model is important for making conflict free environments. Additionally stakeholder interest and understanding is most important for minimizing and resolving conflicts when they accept that certain ideals are not always practical.

Therefore, the Seoul bus reform concretely shows conflicts can be minimized and managed effectively to prepare an institutional and practical measure. This allows the stakeholders to recognize problems and participate in the policymaking process from policy decision and implementation and to seek alternatives to reflect their opinions, so that they can contribute.

A precondition is to change the views policymakers, who are responsible for policy decisions, see conflicts. In addition, there must be changes in thinking that participation enhances the legitimacy and driving force of a policy rather than hindrances it against policy promotion. Along with this the work for institutionally complementing a policy promotion system will have to be done.

In conclusion, the case study presents an effective alternative on current or future conflict issues faced by local governments including Seoul, the central government, and public institutions. The case study suggests not only preventive measures for the public management sector, but also a useful direction and measure for conflict management in various fields.

# 02

## Conflict Cases Expected in the Future

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This case study illustrates various suggestions for public policies conflict management and also conflict cases expected in the future. It is inevitable that continuous work must be done in the in order to construct a more convenient public transport, at which the reform is ultimately aimed.

First, controversies about the change in direction of an urban management system, including the bus operation, have come to light. This problem was not sufficiently considered especially setting the direction for the overall system of urban management ought to be discussed seriously. This is because a change due to the introduction of a semi-public system can result in an unavoidable issue. The problem is also expected to appear with an increase in bus fare.

Second, as closely related to the first topic, conflicts around calculating profits and operating costs can occur. Especially, as profit calculation criterion of production costs is applied to the bus expense calculation. Additional potential conflict includes revenue transparency and advertising revenue management.

Third, determining who is responsible for subsidizing wide area buses that run in both Seoul and neighboring districts can cause conflicts between Seoul and those areas.

Fourth, there is still the possibility of future conflicts between the Seoul Bus Transport Association and the Bus Transport Labor Union. Seoul became involved in labor and management problems due to the introduction of the semi-public bus system.

Fifth, conflicts may be generated between potentially weakened management or weakened efforts by the bus industry leading to requesting changes in management due Seoul providing subsidy support. Keeping the entrepreneurial spirit of the bus industry under the semi-public operation system stimulated and maintained can become an important problem.

Sixth, there is a possibility that interpretation conflicts are generated around the ambiguous agreement articles made between the city and the bus union. The possibility for conflict around the management of bus routes is still a real possibility.

Seventh, complaints by those using transport road transport means, such as private passenger vehicles or truck drivers, can appear in connection with expanding the median exclusive bus lanes. Also adjusting intersection signals due to introducing more bus lanes may act as a factor causing conflicts.

Additionally, other conflicts can be generated around cost burdens if the improvement in facilities and services of general buses leads to smaller town's buses also being upgraded. Also anything that could disturb the trust and cooperative relationships constructed among the stakeholders could lead to potential problems.

## • Notes

1. According to the Seoul City Transport Bureau, passenger cars account for 72% of total road usage. Among them 79% of cars are in operation run as single occupancy cars. They are a major cause of traffic congestion and the cost of such traffic congestions is analyzed to have reached 5 trillion KRW per year (Seoul City Transport Bureau, 2004).
2. In Curitiba of Brazil a policy priority has been put on their bus reform. The reasons are unsufficient capital for the construction of subways, subways long-term construction periods, which may be more than 10 years, and their high cost. Curitiba has improved their bus transport system with 1/80 of subway construction costs and have made buses fast and convenient transport not inferior to subways (KIM Gyeng Chul, 2001, p.10).
3. Mass transit is an aspect of the five cultural city-centered policies that are oriented to build a cultural city: 1) maintenance of rich parks and green spaces through a green space policy, 2) the establishment of an almost complete recycling system through an environmental waste policy, 3) social welfare policy through the Lighthouse of Wisdom Public Library, 4) integration and time administration (KIM Gyeng Chul; 2001).
4. The Bus Reform Public Committee started with 19 people and was composed of 20 members by the seventh session (January 14, 2004) by adding the Vice President of Seoul Bus Transport Association as a member at the request of the Seoul Bus Transport Association.
5. In the Cheonggye Stream restoration, one primary question raised in overseas lectures was how a large project such as the Cheonggye Stream restoration was accomplished without larger social conflict (HWANG Kee Yeon, 2005, P. 6).
6. CHEON Dae Yun states political, economic, technical, and information factors as determinants of social conflict in addition to social and cultural factors (2001, p.58).
7. LEE Gwang Yun points out insufficient preliminary reviews or opinion convergence of national policy projects as a cause of conflict around public policies (Munhwa Ilbo, Feb. 11, 2005).
8. LEE Gang Chul recommends an institutional device for conflict solution when referring to Cheonseong Mountain stating he “will seek for creating an apparatus to adjust and prevent a social conflict in institutions through public discussions

with expert groups" (Donga Ilbo, Feb. 7, 2005). But the effectiveness of the institutional device is expected to be halved, lest the efforts to seek a fundamental change in accomplishing a public policy are accompanied by this apparatus.

9. YE Gyeong Hee and HONG Yang Hee suggest the DAD model as the conflict cause according to the promotion of a top-down policy due to political factors, such as the problem of the decision-making system (YE Gyeong Hee and HONG Yang Hee, 1998).
10. Legal-institutional devices for inter-governmental conflicts are specified in the Constitutional Court Act, the Administrative Litigation Act, and the Local Government Act, among others. However, if agreements between concerned parties are not made concerning conflicts between governments or between residents, they depend on non-institutional means and judicial adjustments such as appealing to public opinion through collective actions rather than exploring rational adjustment measures (the Ministry of Government Administration and Home Affairs, 1999).
11. PARK Min Jin analyzes the relationships between the formation of trust and conflict management, using the case of the Cheonggye Steam restoration as example (PARK Min Jin, 2004).
12. CHEON Dae Yun defines it as "situational conflict management" (2001, p. 181).
13. PARK Myeong Hyeon explained three conflict management strategies by dividing them into periods : Compulsory conflict management strategies in early 1980-1990, normative and social conflict management strategies after establishing a civilian government in 1993, and utilitarian and technical conflict management strategies after launching autonomous local government in 1995. (p.34)
14. Lewicki, Weiss and Lewin present descriptive and normative models in their model of negotiation. The descriptive model is a scientific approach that describes or predicts factual processes of a conflict in simple terms, while the normative model describes individual's actions and reflects their evaluation in historical aspects; whether they are inherently bad or destructive. In most normative models, researchers argue that negotiators should collaborate or use win-win strategies (Womack, 1990, p. 33). Interviews with negotiators and participatory observations are closer to a scientific-descriptive model rather than a normative one.
15. Mr. J felt the opposition politicians had regarding the test operation of Dobong-Mia Road came from a lack of information or understanding of the bus reform,

including the introduction of the median exclusive bus lanes, rather than opposing the Seoul bus reform.

16. Mr. K believed the reason for failure in the median bus lane test project was rather the opposition of bus companies or passengers than those of politicians.
17. Mr. F points out that the median exclusive bus lanes introduction and reestablishment of bus stops were very difficult with problems such as accessibility and transport communication were inverted. He stated a policy judgment was made from the standpoint of absolute majority and hence did not express much interest in the financial survival of others.
18. Whereas public officials who participated in the Seoul bus reform claim there was no internal conflict or minimal conflict between departments, Mr. H. who is a member of the Bus Reform Public Committee stated the following: "There were a number of powers that confronted each department due to their conflicting interests. And the conflicts are still present. However, it's hard to tell you with specificity." (Interview with Mr. H., a member of the Bus Reform Public Committee)
19. Pierre explains the concept of old governance as a form in which the government plays a leading role. This is unlike the concept of new governance which emphasizes the importance of networks (2000).
20. KIM Kwang Sik refers to cooperation, consensus, partnership, network, interaction, social capital, empowerment, and accountability as characteristics of governance (2005).
21. Considine & Lewis classify governance into four types: procedural governance, market governance, enterprising governance, and network governance. Network governance as a form of organization linking customers, suppliers, and producers together as co-producers, is especially in line with Pierre's new governance as it seeks partnerships based on controls and influences people and their trust, rather than on regulations or supervisions (2003).
22. New public management (NPM) can be understood as a concept introduced as a measure to increase efficiency and productivity of the public sector, introducing principles of market economy, such as competition and privatization in the public sector since the 1980s.
23. Neoliberalism is a movement toward minimizing market intervention by the government and emphasizing market autonomy. At the same time it emphasises the active role of the government for essential tasks.

24. Porto Alegre, Brazil is experimenting with a participative budget system to concrete public participation from budget establishment to its implementation and evaluation through the construction of a participatory pyramid on behalf of representative democracy. It also advocates “democratization of democracy” as one of the important mottos of the experiment (PARK Jong Cheol, Hope for a New Democracy, 2005.).
25. Guy Sorman stresses a new function of the state and its search for a new role, saying that politicians, who take chare of state management, are now only subjects who lead state management in connection with entrepreneurs, media, churches, lawyers, labor unions, internet, and NGOs (Jung Ang Ilbo, April 1, 2005).
26. Unfortunately the introduction of new governance into the Seoul Metropolitan Government in relation to the bus reform was not actively led by the city government but rather by the failure in the early bus reform, due to opposition from autonomous regions and their residents in the test introduction of the median exclusive bus lanes. Civil society organizations also encouraged the introduction of new governance in the bus reform.

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**Appendix**  
**I**  
**Interview Questions**

**Table 2.12 Interview questions on conflict management**

Division	Conflicts	Question contents
Latent conflicts	<ul style="list-style-type: none"> <li>• Conflicts between departments</li> <li>• Conflicts between relevant parties</li> <li>• Conflicts with external organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Cases for conflicts between departments</li> <li>• Cases for conflicts between relevant parties</li> <li>• Cases for conflicts with external organizations</li> </ul>
	<ul style="list-style-type: none"> <li>• Internal conflict management</li> <li>• External conflict management</li> </ul>	<ul style="list-style-type: none"> <li>• Internal conflict management method of Seoul Government</li> <li>• Conflict management between Seoul Government and external organizations</li> <li>• Preparations for internal/external conflict management (planning, institutions, etc.)</li> </ul>
Recognized conflicts and expressed conflicts	<ul style="list-style-type: none"> <li>• Bus operation reorganization</li> <li>• Bus management system</li> <li>• Public transport fare</li> </ul>	<ul style="list-style-type: none"> <li>• Seoul ↔ bus union</li> <li>• City/town ↔ bus labor union</li> </ul>
	<ul style="list-style-type: none"> <li>• Conflict management</li> </ul>	<ul style="list-style-type: none"> <li>• Committee representation</li> <li>• Internal stability of information disclosure</li> <li>• Trust relationships</li> <li>• Atmosphere of communication</li> <li>• Objectivity (moderators/specialized media)</li> </ul>
Conflict aftermath	<ul style="list-style-type: none"> <li>• Effects of conflict management</li> <li>• Expected conflicts</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholders evaluation on results of conflict management</li> <li>• Future expected conflicts</li> </ul>

## 1. Conflict Contents of the Bus Reform

### Question Group 1 *Stakeholders*

- How did stakeholders view conflicts?

### Question Group 2 *Causes of conflicts*

- Did conflicts result in strategies or help legitimize the bus reform?

- What were the major conflicts about and happened behind the scenes?

#### **Question Group 3** *Types of Conflicts*

- What conflicts existed between city departments and between policymakers?
- What conflicts existed between the city and external organizations such as civil society organizations or expert groups?
- What conflicts existed between external groups?

#### **Question Group 4** *Degree of Conflicts*

- What were the most difficult conflicts centered around?

## **2. Degree of Seoul's Preparation for Conflict Resolution**

#### **Question Group 5** *Measures Seoul took for conflict prevention and mitigation*

- What opportunities did stakeholders have for participation from early stages?
- Planning and implementation of policy promotion concerning the legitimacy and necessity of the bus reform
- What were guidelines for preventative conflict management?
- What were conflict management guidelines for ongoing conflicts?
- What were guidelines for completed conflicts?
- What degree of authority did the city mayor, the Bus Transport Office and the Bus Reform Public Committee have?

## **3. Adjustment Process of Conflict Resolution: Operation and Role of the Bus Reform Public Committee**

#### **Question Group 6** *Conflict management by mediation, especially by a third party*

- What problem did the committee have in representing the views of its members?
- What degree of information was disclosed at subcommittees or informal meetings?
- How reliable were interactions between Seoul ↔ the bus union ↔ the bus labor union ↔ experts ↔ civil society organizations?
- How reliable were persons directly involved between Seoul and bus union / the bus union and the bus labor union?
- How reliable do the third parties (experts/civil society organizations) view the stakeholders?
- What are three major factors that influenced forming trust among stakeholders?
- How reliable are civil society organizations and expert groups?
- What efforts were made on maintaining objectivity? Were moderators / experts / civil society organizations able to maintain objectivity?

## 4. Mass Media and Conflict Management

### **Question Group 7** *Mass Media and Conflict Management*

- Did mass media reflect conflict management positively or negatively?
- Do stakeholders think mass media influenced them?

## 5. Role of Leadership: Role of the Seoul Mayor / Chairman of the Bus Reform Public Committee

### **Question Group 8** *Role and contribution of the Mayor of Seoul*

### **Question Group 9** *Role and contribution of the Chairman of the Bus Reform Public Committee*

## 6. Effects of Conflict Management

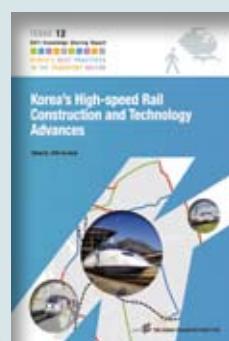
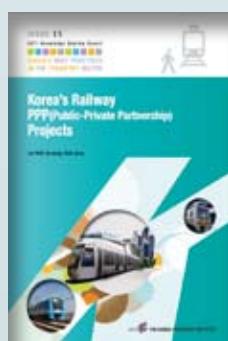
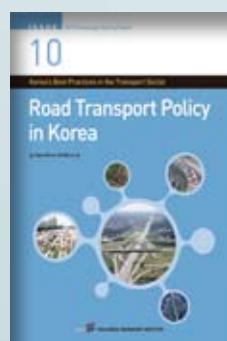
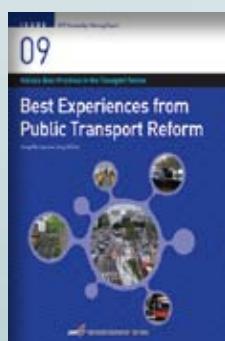
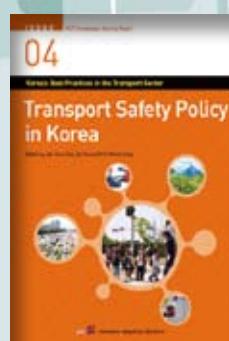
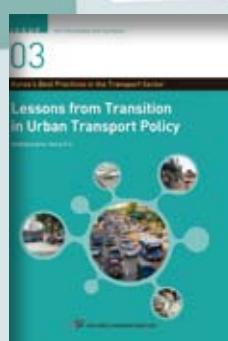
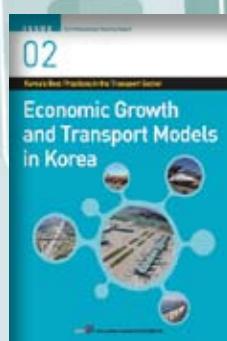
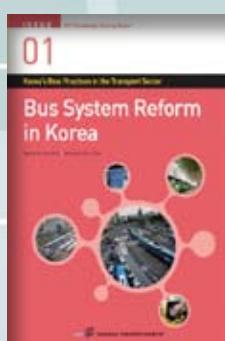
### **Question Group 10** *Analysis of Effects of Conflict Management*

- How did relevant officials manage conflicts?
- What points should Seoul consider as priority for the prevention and resolution of conflicts?
- Now that the reform is completed, what conflicts are expected in connection with the bus reform?

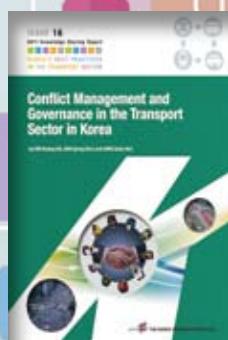
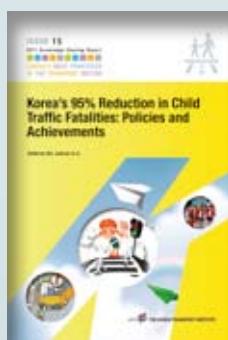
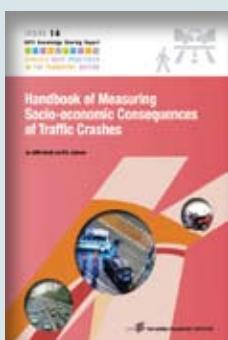
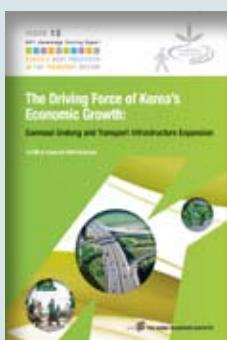
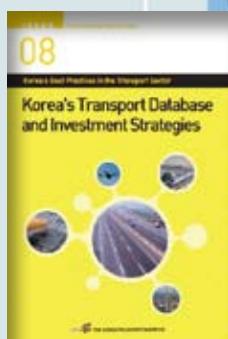
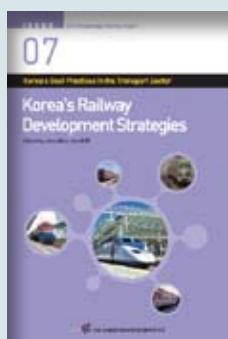
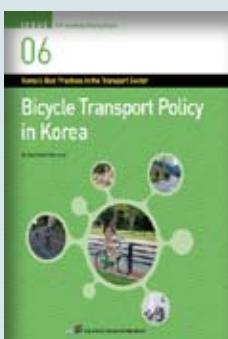
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- Issue 16** | Conflict Management and Governance in the Transport Sector in Korea



# **Conflict Management and Governance in the Transport Sector in Korea**

The Korea Transport Institute (KOTI) is a comprehensive research institute specializing in national transport policies. As such, it has carried out numerous studies on transport policies and technologies for the Korean government.

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