ISSUE 18
KOTI Knowledge Sharing Report
KOREA'S BEST PRACTICES
IN THE TRANSPORT SECTOR

The Improvement of the Pedestrian Environment in Korea: Policies and Achievements

by LIM Sam-jin et al.

THE KOREA TRANSPORT INSTITUTE

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Issue 18: The Improvement of the Pedestrian Environment in Korea: Policies and Achievements
- The Security of Pedestrians' Rights and Improvement of the Pedestrian Environment -

Editor_LIM Sam-jin
Authors_ CHO Jun-han, JEONG Seok, KIM Eun-hee, KIM In-seok, LIM Sam-jin, MYEONG Myo-hee, and SO Ki-ok
Copyeditors_KIM Gunyoung, CHAE Jiseon, and Richard Andrew MOORE

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Contact email: rorypop@koti.re.kr

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• Editor and Authors

* Authors are listed in order of the contributions appeared.

LIM Sam-jin

Dr. LIM Sam-jin, the co-author and editor of this book, was born in Jeonju in 1960 and graduated from Seoul National University with a major in Philosophy, Sungkyunkwan University Graduate School of Governance, and Seoul National University Graduate School of Environmental Studies, where he earned his Ph.D. in Urban Planning.

While in college, LIM participated in democracy movements and labor movements. In 1993, he coined the words "green transportation" and "pedestrian rights" and contributed to creating the civic organization named Networks for Green Transport, serving as Secretary-General. He has been devoted to developing public transportation by taking the initiative in restoring crosswalks in Gwanghwamun for people-oriented transportation and drawing up plans for Seoul bus reform. LIM also created the "traffic safety culture index" and contributed to enhancing traffic safety by having traffic lights placed in front of an intersection. He also served as the secretary-general of Green Korea United and the Head of the Korea NGO's Energy Network.

LIM also worked in the Cheongwadae during the Kim Dae-jung administration as the Head of the Presidential Secretariat Civil Affairs Division and the LEE Myung-bak administration as the Secretary for Civil Society of the Presidential Office. He also joined the Ministry of Land, Transportation and Maritime Affairs and the Ministry of Environment as well as various committees affiliated with Seoul City. He served as a research professor (1993-1998) at the Hanyang University Department of Transportation Engineering, and as associate research professor of engineering at Seoul National University (2009-2011). He also served as Executive Vice-Chairman (2011-2013) of the Korea Railway Association. LIM served as vice chairman of the Korean Society for Railway and a Research Consultant at the Korea Transport Institute. He has published several books, including *Dear Minister of Transportation* (1991), *21st-Century Value* (2000), *A History and Development of Korean Railway II* (2013, co-authored), and the papers, including the "Performance Assessment of Bus Transport Reform in Seoul," (2011, *Transportation*).

E-mail: isj2020@daum.net

MYEONG Myo-hee

Dr. MYEONG Myo-hee was born in 1969 and graduated from Sungkyunkwan University and studied law (civil law) and Urban and Local Administration and earned a Ph.D. in Public Administration.

She has been serving as a Senior Researcher in the Traffic Science Research Center of the Road Traffic Authority since 1995. Her major research areas include traffic safety policy, traffic administration, and traffic laws. She has conducted research on education and management systems of road users including drivers, policy for the behavioral improvement of road users, road traffic laws, and traffic safety plans, among others. Her current research interests include eco-friendly modes of transportation, such as walking, bicycles, and trams.

She works actively as a member of various government organizations, such as the Ministry of Security and Public Administration, the Police Agency, and Seoul City. She is currently working on research about the improvement of the enforcement and punishment of road traffic law violation, improvement of the driver's license system, vitalization of tram use, and legalization of 30 km zones. Her major works include the paper "Differences in Traffic Violations and At-Fault Crashes between License Suspension and Revocation" published in *Accident Analysis and Prevention* (2011).

E-mail: myohee@koroad.or.kr

KIM Eun-hee

KIM Eun-hee was born in 1964 and studied German language and literature at Inha University. In 1992, she served as one of the founding members of the "Citizens Alliance for Traffic Problems," the forerunner of the Networks for Green Transport. In 1994, she founded the Urban Action Network jointly with Choi Jeong-han. She now works as the Head of the Urban Action Network Policy Research Center.

She began to take interest in resident participation while engaging in the civic movement for the creation of safe school walk zones since 1992 and got involved in village remodeling movements through her activities in Insa-dong. Since then, she has worked with village remodeling movements in various regions, such as Bukchon, Bupyeong Culture Street, apartment complexes for the underprivileged, with special emphasis on residential roads and pedestrian safety. Being aware of the importance of critical reviews about the village remodeling movement, she is now conducting research on the evaluation of the village remodeling movements.

E-mail: gsg11011@hanmail.net

JEONG Seok

Dr. JEONG Seok was born in Jeonju, Korea, in 1962 and completed his undergraduate and graduate studies, earning a Ph.D. in Urban Architecture. He joined the Seoul Development Institute (present-day Seoul Institute) in 1994 and worked there until 2006.

While working at the Seoul Development Institute, JEONG participated in various urban architecture-related research activities, including research on urban landscapes, such as the landscape of the Hangang River and hilly areas, in addition to outdoor advertising facilities, research on resident-participatory village remodeling such as the creation of walkable cities and the pedestrian environment, and research on the preservation of history in Bukchon and Insa-dong. He was named the head of the Northeast Asia Urban Research Center in 2004 and undertook various comparative studies about cities in China and North Korea, as well as many other historical cities in Northeast Asia.

After a stint at Kyungwon University as a Professor of Urban Planning from 2007 to 2013, he moved to the University of Seoul in 2014, where he now teaches urban planning as a Professor of Architecture. He is the author of *I Like a Neat City Better Than an Extraordinary City* (Hyohyeong).

E-mail: jerome363@uos.ac.kr

SO Ki-ok

SO Ki-ok joined the civil service workforce after graduating from college with a major in Civil Engineering. For over 30 years, he worked for various government departments such as the Ministry of Home Affairs, the Ministry of Government Administration and Home Affairs, and the Ministry of Public Administration and Security and undertook various public works, including the road development and maintenance in local cities, overhaul of the child and senior safety zones, prevention of traffic accidents, and promotion of bicycling and walking. Especially, he took the lead in working behind the scenes for the enactment the “Promotion of the Use of Bicycles Act” and the “Pedestrian Safety and Convenience Enhancement Act.”

He serves as the Planning and Managing Director with the Korea Elevator Safety Technology Institute, a government institution that specializes in elevator safety and management, since 2013. He is much interested in the expansion of elevator installation in public transport facilities such as subway.

E-mail: sk8403@daum.net

KIM In-seok

Dr. KIM In-seok serves as a Principal Researcher with the Samsung Traffic Safety Research Institute. He received his Ph.D. in Psychology at Chungang University in 2001. His major research areas include traffic safety policy, traffic psychology, education, and rehabilitation. KIM is now active as a consultant in the traffic safety area for the Ministry of Public Administration and Security, Ministry of Land, Infrastructure and Transport, and the Police Agency. He is the author of the book, *Health Psychology-Injury Prevention* (2002), and the research paper, "Education of Driver's Education and Evaluation system, the Dangerous Behavior such as Driving with Disperse Attention, Danger of Traffic Accidents involving Seniors, and Measures for Prevention."

Email: inseok.kim@samsung.com

CHO Jun-han

Dr. CHO is a Senior Researcher with the Samsung Traffic Safety Research Institute. He received his Ph.D. in Transportation Engineering at Hanyang University in 2009. He had served as a Researcher with Geukdong Engineering, Research Professor and Affiliate Professor at Hanyang University, and Senior Researcher with the Korea Transportation Safety Authority. His major research areas include traffic safety, road designing, traffic signal operation, intelligent transport Systems, and transportation statistics.

He has been carrying out various projects for over two years, including the development of the traffic safety forecasting index and the traffic safety calendar, classification and analysis of the types of unsafe driving behaviors, digital tachograph analysis system, and analysis of dangerous driving behaviors.

Email: junhan.cho@samsung.com

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• 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 transportation 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, recognizing the value of walking, which is the start and end of movement, has been overlooked. This book covers the improvement of the pedestrian environment in Korea. Additionally, I truly hope that walking rights culture will spread and people's choice to walk would be respected.

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.

LEE Chang Woon
President
The Korea Transport Institute

Chapter 01

Introduction

LIM Sam-jin
Former Research Consultant,
The Korea Transport Institute

Section 1

The Value of Walking Seen in a New Point of View

The value of walking in urban transportation tends to be overlooked and even more so in developing nations than in advanced nations. However, walking is far more important than it seems. According to a survey conducted by the Korea Transport Institute (2009) the average modal share of walking accounts for 35.5 percent which is higher than that of passenger cars (32.6 percent). The poll also shows that the average walking distance is 939 meters, walking is the major mode of transport for a trip shorter than 1 km, and the people who do the most walking are students. Walking is in fact a more competitive and faster mode of transportation for short trips within 500 meters than compared to passenger cars, buses, trains, and other means of transportation.

The following is a brief summary of seven characteristics of walking and its social significance (LIM Sam-jin, 2012).

- Remarkable eco-friendliness: Walking relies on human power and has little environmental impact. The creation of a pleasant pedestrian environment is a valuable alternative to reducing dependence on passenger vehicles.
- Urban vitality: Walking adds vitality, freshness, and vigor to outdoor

life beyond its primary role as a mode of transportation. Walking transforms urban life.

- Urban economic development: Walking contributes to boosting the urban and local economy while promoting social interaction and regional economic activities. Most of the central business districts in Europe are pedestrian-friendly. Leeds in Britain, Curitiba in Brazil and maybe others succeeded in vitalizing their cities by expanding pedestrian areas. Strasbourg in France modernized its tram system and created a transit mall to transform itself into a pedestrian-oriented city, achieving the revival of its urban image and economic vitality.
- Transportation networking and accessibility: Walking is a flexible and direct mode of transport for access to various products, services, facilities, and public transportation in a region. Pedestrians' easy and safe accessibility to public transportation is a major factor that creates urban value.
- Health promotion: It has been proven that walking is effective in promoting health. According to the World Health Organization (WHO), a daily 30-minute walk reduces the risks of developing adult diabetes and being overweight by 50 percent. A healthy city therefore requires a healthy pedestrian environment.
- Equity: Everyone is a pedestrian. Walking is the only mode of transport that allows everyone, including children, youth, people without motor vehicles, and people with mobility difficulties, to travel independently.
- Urban safety: Increased walking among the population is accompanied by an increase in pedestrian safety and community security. An increase in pedestrians reduces car use which leads to less car accidents and better urban safety. In addition, pedestrians function as guardians for their community as their presence helps to deter criminal or violent acts thus ultimately contributes to preventing crimes.

According to a study by the Manhattan Borough President's Planning for Pedestrians Council (MBPPPC) two-thirds of street users in Manhattan, New

York, are pedestrians and 60 percent of Manhattan residents who are eligible for a driver's license are without one. However, the relative minority who drive passenger vehicles occupy most of the roads causing spatial inequality. Based on the premise "everyone is a pedestrian" the Council stresses the importance of pedestrian traffic as follows:

1. Street life is important for the Manhattan economy and pedestrians' safe and pleasant access to Manhattan is critical to creating value. 2. Pedestrians are a minority of road casualties. 3. A healthy city requires a healthy pedestrian environment. 4. Manhattan should rely less on passenger vehicles as they create various problems. 5. Walking is the cleanest, healthiest, and cheapest way to move around (Manhattan Borough President's Planning for Pedestrians Council, 1987).

Although this study focused solely on Manhattan it is readily applicable to cities in Korea. The summary stated above calls for shifting emphasis from motor vehicles to walking.

Good streets are democratic streets that have meaning for people, invite access for all, encourage use and participation, are loved and are well cared for by their users (Mark Francis, 1987). Pedestrian-friendly and democratic streets reflect urban social justice, economic health, and ecological sustainability. Pedestrian spaces in densely populated areas should be functional and environmentally pleasant because walking can give vitality and freshness to outdoor human life going far beyond its role as a mode of transport. In this respect, spaces for pedestrians should be conceived as living spaces instead of simply spaces for walking.

A comparison of past and present cities from various nations including Korea shows that car-oriented cities tend to lose vitality but they become livable and lively urban spaces when people become the focal point. The transformation of car-oriented streets into pedestrian-oriented ones increases resident's affection for their city and enhances their quality of life. What is most urgent is our determination to change the transit system from auto-oriented to people-oriented. This paradigm shift should start with re-prioritization by giving top priority to pedestrians and bicyclists leaving with

passenger cars at the bottom and public transport users in the middle.

Such changes in public awareness do not come naturally. The improvement of the pedestrian environment has resulted from social power formed by pedestrians who are more vulnerable. In Korea the pedestrian environment improvement came as an outcome of aggressive civil campaigns which eventually led to the enactment of pedestrian ordinances and pedestrian acts.

Section 2

From the Birth of Pedestrian Rights to the World's First Pedestrian Laws: Best Practices for Pedestrian Rights in Korea

The public awareness of pedestrian rights or people-oriented green transportation began with the effort to gain balance and harmony between pedestrians and motor vehicles. Since the beginning of the civil movement for pedestrian rights in 1993, various efforts have been made to secure pedestrian rights and improve green transportation. As Table 1.1 shows, Korea has consistently improved pedestrian rights along with relevant legal systems despite some bumps in the road. Since the enactment of pedestrian ordinances in Seoul in 1997, a total of 25 local governments have enacted such ordinances (LIM Jae-kyung, 2011).

In the wake of the ordinance enactment, various efforts were made to establish a framework act for Pedestrian Safety and Convenience Enhancement since 2005, which and finally came to fruition in 2011. It is the world's first Act that clearly prescribes the legal rights of pedestrians and spells out that the improvement of the pedestrian environment is the responsibility of the nation and local governments. It urged the government to draw up basic plans for enhancing these environments and pushes forward with a project to improve them. Such changes in the legal system were the outcome of unwavering and persistent efforts of civic organizations and

experts to ensure the rights of pedestrians and their safety.

Table 1.1 Timeline of major events in Korea related to pedestrian rights

1993	Commencement of campaigns on green transportation and pedestrian rights
1994	Introduction of the Transport Improvement Project
1995	Legislation of school zones
1997	Enactment of the Seoul Pedestrian Ordinance (followed by Jeju in 1999, Busan in 2000, Cheongju in 2004, among other cities)
1998	Drafting of a basic plan for the improvement of the pedestrian environment in Seoul
1998	Campaigns held for the installation of crosswalks and restoration of north-south crosswalks in Gwanghwamun in Seoul
1999	Commencement of project for the creation of walkable streets in Seoul and the Pedestrian Environment Improvement Project
2003	Construction of Seoul Pedestrian Plaza in front of Seoul City Hall
2004	Commencement of the Green Parking Project
2005	Restoration of east-west crosswalks in Gwanghwamun in Seoul
2005	Enactment of the Act on Promotion of Transportation Convenience of Mobility Disadvantaged Persons
2006	Finalization of the plan for the creation of the Pedestrian Plaza in Gwanghwamun
2007	Legislation prepared for the designation of silver zones for seniors
2007	Launch of Pedestrian Priority Zone pilot project
2009	Enactment of the Sustainable Transportation Logistics Development Act
2011	Enactment of the Pedestrian Safety and Convenience Enhancement Act

With the restoration of crosswalks in Gwanghwamun many crosswalks which had been removed were restored across the nation.

Many pedestrian overpasses were replaced with crosswalks and the number of new crosswalks installed near pedestrian underpasses has increased sharply as well. In addition to crosswalks, the green parking project is also contributing to enhancing public satisfaction with pedestrian environments.

The Seoul City Authority launched the Green Parking Project in 2004 in order to relieve the urgent parking problem in residential areas and improve the living environment. According to a survey conducted in September 2011, a total of 41,752 parking spaces were available (Korea Transport Institute,

2011). This project aimed to secure pedestrian, parking, and green spaces while promoting better communication among local residents by removing walls and enhancing the quality of urban spaces by improving urban amenities. A comparison of the residential street parking conditions in 1994 with those in 2006 shows a marked difference (LEE Eun-jeong, 2007).

The Pedestrian Priority Zone Project, which began in 2007 on a trial basis, has been expanded to 18 areas and many cities have created pedestrian streets and pedestrian priority streets. In addition, various civic organizations including the Urban Action Network have initiated various local community projects designed to secure pedestrian rights and create pleasant residential streets.

This book surveys various best practices for pedestrian rights from diverse perspectives.

Section 3

Effects of Best Practices on Improving Pedestrian Amenities

1. Restoration and Increase of Crosswalks

In many cities in Korea, motor vehicles operate on ground level while pedestrians often have to use an underpass or an overpass to cross a street. It is virtually impossible for people with physical disabilities to cross a street using an underpass or an overpass and even ordinary pedestrians are compelled to endure the inconvenience of crossing a street via an underpass or overpass. Many roads are without crosswalks due to the inhumane and unreasonable transport system that bans the installation of a crosswalk near an underpass or an overpass. In this respect, the restoration of crosswalks not only means an increase in crossing structures but it also means improvement in mobility of those with physical disabilities and accessibility of others.

Thanks to various campaigns for pedestrian rights and safety by civic organizations, governmental projects for improving pedestrian environments, and the introduction of median exclusive bus lanes in Seoul, there was a sharp increase in the number of crosswalks in Korea. For instance in Seoul the number rose from 19,380 in 2003 to 32,251 in 2013, a whopping 66.4 percent increase within a decade. Also, the number of crosswalks per 1 km

increased from 2.43 in 2003 to 3.94 in 2013 (Table 1.2).

Table 1.2 Number of crosswalks in Seoul

Year	2003	2005	2007	2009	2010	2011	2012	2013
Crosswalks	19,380	22,111	25,275	26,273	26,695	28,004	29,717	32,251
Crosswalks per 1 km	2.43	2.76	4.19	3.76	3.28	3.44	3.64	3.94

Source: Seoul Metropolitan Government Homepage

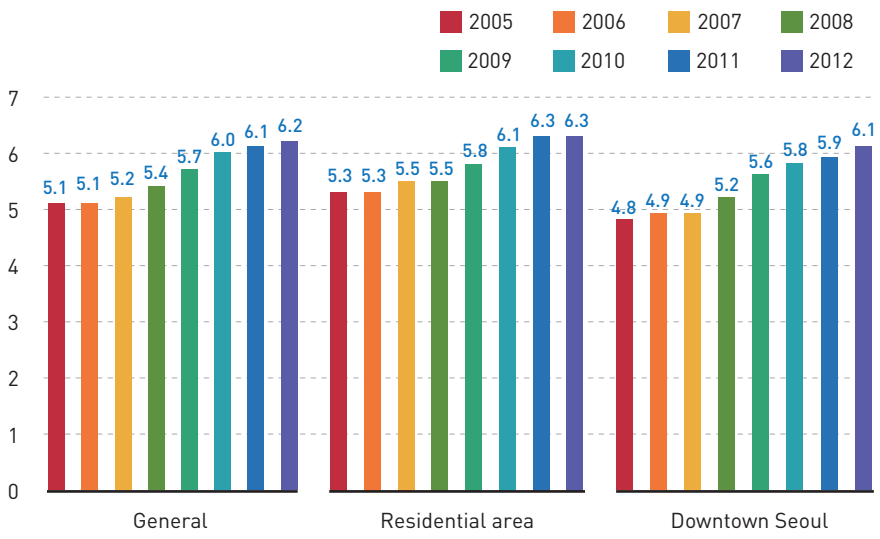
2. Improved Public Satisfaction with the Pedestrian Environment

Various movements staged by civic organizations and changes in governmental transport policies have significantly affected Korea's pedestrian environment and public satisfaction with it. For instance, there have been widespread efforts to transform the car-oriented areas like Gwanghwamun and the stonewall street around Deoksugung Palace into people-friendly places which results in consistent improvement in public satisfaction with the pedestrian environment.

According to a survey of some 600 Seoul residents first conducted in 1997 by the civic organization Networks for Green Transport, residents' satisfaction with the pedestrian environment in Seoul marked as low as 3.48 on a scale of one to ten. A poll by the Seoul Development Institute, a research center affiliated with Seoul, showed a similar result with 3.63 out of 10.

The Seoul City Authority has since undertaken several projects to improve its pedestrian environment and consequent public satisfaction with it. As Figure 1.1 shows, Seoul residents' satisfaction with the pedestrian environment hit 5.1 out of 10 in 2005 but gradually rose to 6.0 in 2010 and 6.2 in 2012 (Seoul City, 2012).

Figure 1.1 Residents' satisfaction with the pedestrian environment in Seoul



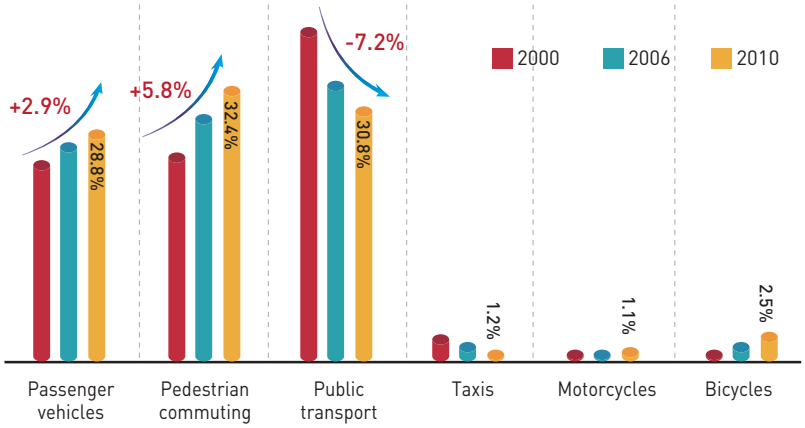
Source: Seoul Survey 2012, Seoul Metropolitan Government

3. Increase in Walking and the Number of Pedestrian Commuters

According to an analysis of changes in the means of transportation over the past ten years by the Korea Transport Institute, the use of passenger cars grew consistently while public transportation sharply declined from 2000 to 2010 (Figure 1.2). Walking increased 5.6 percent during the same period which resulted in a sharp rise in pedestrian commuting at 32.4 percent; the highest modal share among all means of transportation.

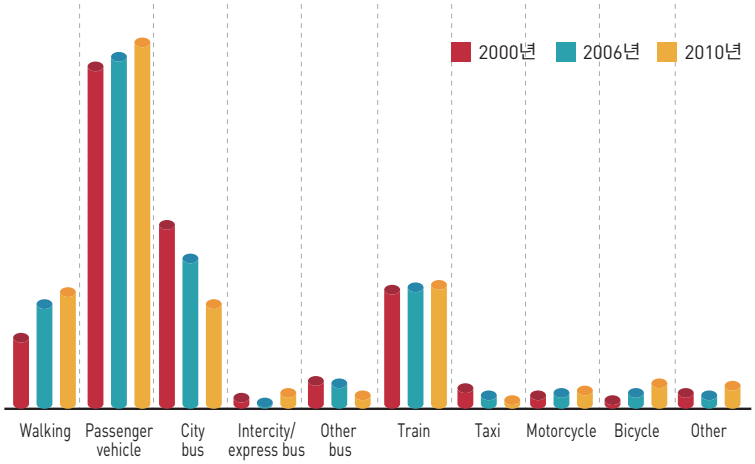
Korea has implemented various projects for the promotion of walking including the Pedestrian Priority Zone Project and the Walkable Street Project in metropolitan areas. For instance in Seoul the Seoul City Authority carried out various projects for the creation of walkable streets with the aim to secure pedestrian rights and improve the quality of life for residents by transforming its urban environment, which used to be insecure, inconvenient,

Figure 1.2 Changes in transportation modal shares from 2000 to 2010



Source: National Transport Database Center, "A Decade of Change in Korean Travel from 2000 to 2010," *National Transport Survey in Korea Pocket Book*, Korea Transport Database, 2011, p. 10.

Figure 1.3 Changes in commute modal share from 2000 to 2010



Classification	Walking	Passenger vehicle	City bus	Intercity/ express bus	Other bus	Train	Taxi	Motorcycle	Bicycle	Other
2000	11.0%	40.0%	23.2%	1.0%	3.0%	15.9%	2.0%	1.3%	0.9%	1.7%
2006	14.4%	40.8%	19.8%	0.8%	2.5%	16.2%	1.2%	1.5%	1.5%	1.3%
2010	15.7%	42.2%	14.8%	1.9%	1.4%	16.6%	0.9%	1.7%	2.5%	2.3%

Source: National Transport Database Center, "A Decade of Change in Korean Travel from 2000 to 2010," *National Transport Survey in Korea Pocket Book*, Korea Transport Database, 2011, p. 15.

and disadvantageous, into one that is comfortable, convenient, and beneficial. Above all, it refurbished 187 areas to improve the pedestrian environment through creating 21 pedestrian streets on a trial basis, made 39 specialized streets, restored crosswalks, introduced car-free streets, and renovated pedestrian underpasses.

As result, Seoul has seen a dramatic change in residents' commuting modes and there was a sharp increase in the number of pedestrian commuters. The commute modal share jumped from 11.0 percent in 2000 to 14.4 percent in 2006 and 15.7 percent in 2010, which proves the influence of a pleasant pedestrian environment on the development of sustainable green transportation (Figure 1.3).

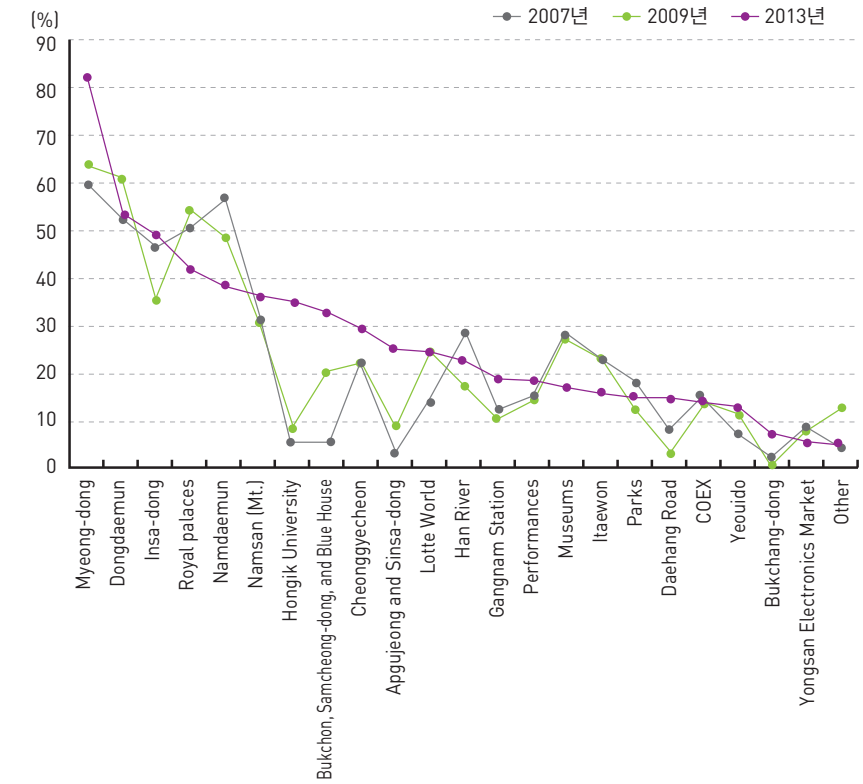
4. Increase in Visitors to Pedestrian-Friendly Areas

Dongseong Road in Jung District, Daegu is the 900-meter-long street between the Daegu Station Intersection and the Central Security Center in one of the busiest downtown areas in Daegu City. In 2009 Daegu created a transit mall that stretches some 1.05 km from the Banwoldang Intersection to the Daegu Station Intersection. As Korea's first transit mall, this people-oriented, eco-friendly street has attracted many tourists with a variety of stores with goods in interesting designs, putting itself on the map as one of the top-ten attractions in Daegu. Dongseong Road embraces an outdoor stage in the square in front of the Daegu Department Store and several alleys lined with stores on specific themes, such as ddeokbokki (a traditional street vendor snack), jewelry, bags, night markets, and second-hand clothing. These alleys are along the pedestrian street set with rectangular stones to be reminiscent of the old city wall.

Dongseong Road is not the only example. As Figure 1.4 shows, people-oriented areas in Seoul, such as Myeongdong, Insadong, and the street from Bukchon Village to Samcheongdong Street, have also enjoyed a significant increase in the number of foreign visitors and gained popularity as major tourist spots in Seoul.

To be more specific, foreign visitors to Myeongdong have increased consistently from 59.6 percent (2007) to 64.3 percent (2009) and 82.8 percent (2013), while those visiting Insadong have risen from 36.0 percent (2007) to 46.6 percent (2009) and 49.2 percent (2013). The area encompassing Bukchon Hanok Village and Samcheong Neighborhood is especially noteworthy as visitors to the area accounted for only 5.6 percent in 2007 but jumped to 20.4 percent in 2009 and 33.0 percent in 2013. These places, which are also popular among locals, attest to the fact that a pleasant pedestrian environment plays a decisive role in boosting a city and its economy.

Figure 1.4 Changes in the percentages of visitors to major tourist spots in Seoul (2007-2013)



Source: The Seoul Institute, 2014.

5. Pedestrian Fatalities in Car Accidents Cut by 73.7 Percent

The number of pedestrians who died in traffic accidents peaked at 6,675 in 1991 falling to roughly half of that a decade later. Since then the number of fatalities has slowly gone to a total of 2,027 in 2012; a decrease of 69.6 percent when compared to 1991.

Table 1.3 Pedestrian traffic fatalities (Unit: persons)

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Deaths	6,142	6,675	5,542	4,849	4,356	4,295	4,788	4,262	3,369	3,550	3,764
2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
3,137	3,108	2,896	2,581	2,548	2,442	2,304	2,137	2,137	2,082	2,044	2,027

The number of pedestrian traffic fatalities per 100,000 people was the highest at 15.42 in 1991 and consistently decreased since then (Figure 1.6). By 2012 the number of pedestrians killed in traffic accidents hit 4.05; a 73.7 percent reduction from 1991.

Figure 1.5 Changes in pedestrian traffic fatalities (1990-2012)

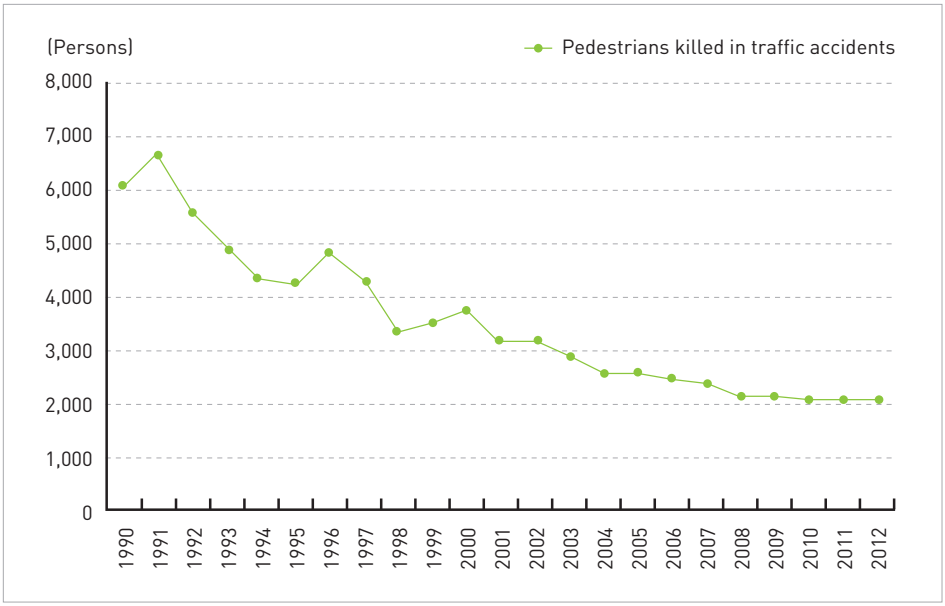


Figure 1.6 Changes in the pedestrian traffic fatalities per 100,000 people (1990-2012)

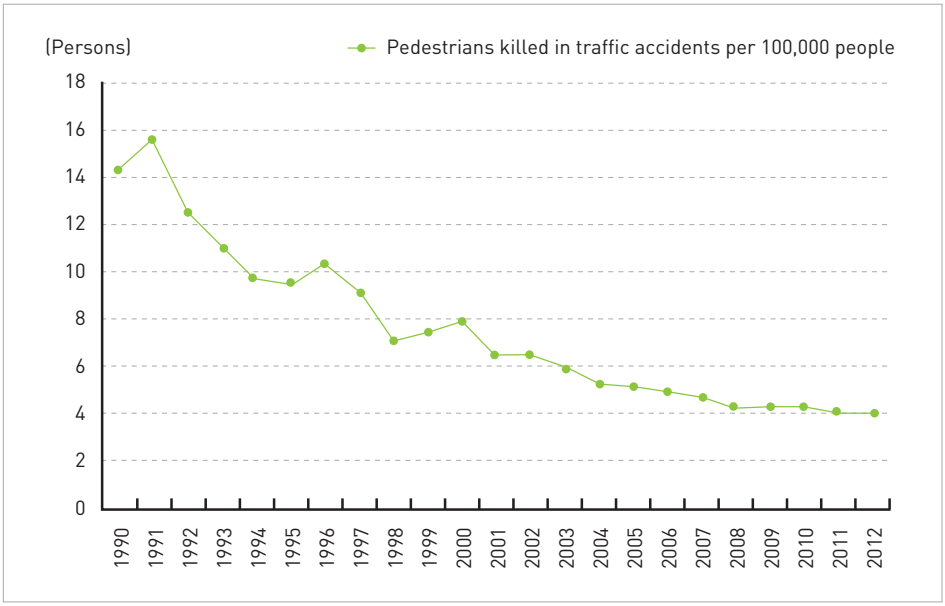


Table 1.4 Pedestrian traffic fatalities per 100,000 people

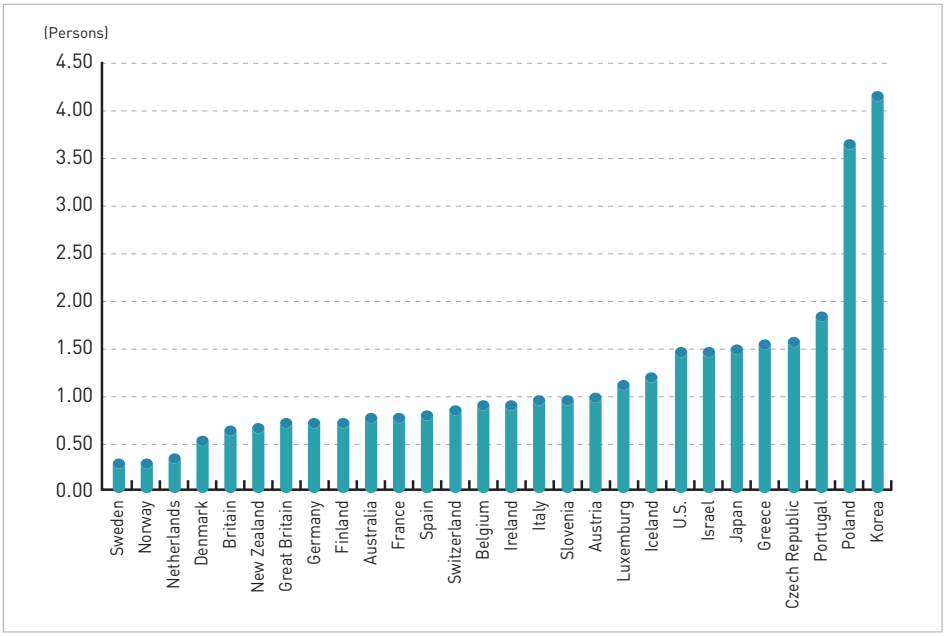
(Unit: persons)

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Deaths	14.33	15.42	12.67	10.97	9.76	9.52	10.52	9.27	7.28	7.62	8.01
2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
6.62	6.53	6.05	5.37	5.29	5.05	4.74	4.37	4.35	4.21	4.11	4.05

The decrease of pedestrian traffic fatalities by a whopping 70 percent is a remarkable achievement and an outcome of various efforts to improve the pedestrian environment, such as the designation of school zones, facility refurbishment, expansion and refurbishment of parking facilities in residential areas, improvement of accident-prone areas, increase in number of speed humps on residential streets, expansion of red light and speed limit enforcement cameras, and location readjustment of traffic lights.

In addition, various education programs designed for pedestrian safety, including senior pedestrian safety, children road safety, jaywalking enforcement, and the encouragement of wearing reflective gear at night have all contributed to reducing pedestrian deaths considerably.

Figure 1.7 Pedestrian fatalities per 100,000 people in OECD member countries



However, Korea continues to be ranked poorly among OECD member countries in terms of frequency of traffic accidents involving pedestrians. According to the International Road Traffic and Accident Database the number of pedestrians killed or injured in traffic accidents per 100,000 people is 4.18 in Korea which is more than three times higher than the OECD member countries' average of 1.35. In other words, Korea is ranked the worst among the 29 OECD member countries with accident and traffic data. With exception for Poland, which is ranked 28th, Korea has twice the number of traffic accidents involving pedestrians compared with other OECD member countries.

Such statistics clearly show that Korea has yet to pay sufficient special attention to pedestrian safety by adopting various measures, such as traffic calming and national speed management in urban and built-up areas. However, such measures are now being included in the National Traffic Safety Master Plan being implemented in Korea now. The successful fulfillment of this master plan will ensure a drastic cut in pedestrian accidents over the next ten years.

Section 4

The Scope of the book

This book deals with Korea's pedestrian-oriented development by categorizing it into several areas.

Chapter Two summarizes a brief history of pedestrian rights in Korea by dividing it into three periods: beginning, expansion, and maturity.

Chapter Three addresses various problems experienced due to Korea's previous pedestrian environment as well as various activities by non-governmental organizations to promote pedestrian rights and improve pedestrian environments. This chapter will help readers understand how campaigns for pedestrians' rights began in the 1990s by civic organizations.

Chapter Four covers the enactment of pedestrian ordinances in terms of their background and major issues as well as a 20-year history of the project for the creation of walkable streets.

Chapter Five delves into the enactment of the Pedestrian Safety and Convenience Enhancement Act along with its historical significance.

Chapter Six surveys various projects for the improvement of pedestrian environments such as the pedestrian priority zone, pedestrian environment improvement zone, car-free street, transit mall, and green parking along with several examples of best practice.

Chapter Seven presents strategies, future goals, and policies for the improvement of pedestrian environments in Korea.

This book provides readers with useful information about various efforts the Korean government has made to improve pedestrian environments and pedestrians' rights. In particular Korea's Pedestrian Safety and Convenience Enhancement Act is the world's first legislation related to pedestrians. It offers traffic-related experts and administrators around the world some valuable insights into the past, present, and future of Korean policy towards pedestrians.

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Chapter 02

The History of Pedestrian Rights Expansion in Korea

MEONG Myo-hee
Senior Researcher, Road Traffic Authority

It has been 20 years since the concept of pedestrian rights emerged in Korea. For the past two decades Korea's transportation paradigm has been in the process of shifting from automobile-oriented to people-oriented and eco-friendly mobility, aiming for sustainable transportation. While Korea has lagged behind Europe and Japan in terms of walking priority policy, law, and culture, its government has undertaken various policies and projects aggressively and consistently for the improvement of pedestrian rights.

This chapter gives an overview of the history of pedestrians' rights in three stages. The first stage, which is referred to as the formative period of pedestrians' rights encompassing the early 1990s. This was a time when non-government organizations raised questions about the poor pedestrian environment and consequent infringement of pedestrians' rights and represented the public to address issues about pedestrian safety, which had been dangerous enough to pose a threat. The second stage is the period of expansion in the right to walk from the late 1990s to the mid-2000s. The last stage is the mature stage of pedestrians' rights, which embraces recent trends, including the government's interest and efforts to protect pedestrians by enacting and revising laws related to pedestrian rights and undertaking various projects for the improvement of pedestrian environments.

Section 1

The Formative Stage of Pedestrian Rights (Early 1990s)

1. Public Awareness and Consensus about the Necessity to Improve Pedestrian Environments

In many cities throughout the world, the role and importance of walking have been neglected as motorization became a solution to increase mobility and overcome spatial and temporal constraints of urban sprawl. Since the mid-20th century, however, such concepts as sustainable development and urban regeneration have gained traction in calling for a modal shift.

As a result, discussions on pedestrian rights and the consequent vitalization of pedestrian malls began in Europe in the 1950s. According to the Buchanan Report from 1963, various actions were taken for the protection of the living environment from automobiles through transport improvements in the pedestrian environment. Starting with "woonerf" (living streets) in the Netherlands, the concept of pedestrian-oriented streets emerged one after another, affecting car-oriented urban planning to control transportation volume and speed and introducing traffic calming and speed limit areas. In 1988 the European Parliament enacted and promulgated the European Charter of Pedestrians' Rights, which recognized pedestrians' right to live in a healthy environment and enjoy the amenities offered by public

areas under conditions that adequately safeguard pedestrians' physical and psychological well-being (LIM Sam-jin, 2007).

In Korea, however, the car-oriented urban planning that reflected the social mentality that pursued speed and convenience rather than safety and quality of life forced the shaping of the transportation and legal systems accordingly. Intersections without a crosswalk, pedestrian crossing time too short for safe crossing, streets without sidewalks, and all sorts of facilities and hindrances that invade the sidewalk area characterized the pedestrian environment of Korea, and the importance and value of walking was undervalued. In a word, walking was a dangerous mode of transportation in Korea as pedestrians accounted for almost half of total traffic deaths across the nation. The mobility handicapped, particularly children, seniors, and the disabled were even more vulnerable.

Non-government organizations listened to complaints about unsafe routes to school and the mobility rights of the disabled and responded by organizing themselves to stage civic movements for pedestrian rights. It was in the early 1990s that the "rights of pedestrians" began to be recognized as a basic right. In 1993, civic organizations led by the Networks for Green Transport held the Urban Walking Festival to promote pedestrians' rights, which triggered a campaign for pedestrian rights and the introduction of the concept.

IM Sam Jin, who coined the phrase the "right to walk," recalled the beginning of the campaign as follows:

With the launch of the Networks for Green Transport, we made great efforts to choose the topic and concept of the campaign while planning the event for the first time. At that time, I was impressed by the book Ideas of the Right to Travel (Kodansha Ltd., 1985). I bought in around 1990 and I was beginning to learn the concept of pedestrian rights as part of social rights thanks to the book. In doing so, I took great time to seek ways to introduce this "right to travel" to Korea and decided to modify the term "pedestrians' rights," which in Korea lagged far behind those in advanced nations, to the "right to walk." So we decided on "Harmony between Humans and Cars Begins with the Promotion of the Right to Walk" as the sub-topic of the

"Urban Walking Festival for the Promotion of the Right to Walk." In other words, it was the declaration of humanism in transportation.

The campaign for the right to walk in Korea was born out of the concept of mobility rights with humanism, justice, and human rights as its philosophical basis. It addressed the necessity to approach the promotion of the right to walk taking into consideration protecting the rights of social minorities and spread pedestrian democracy, which claims public entitlements of access to streets.

2. Movement for the Right to Walk Led by Civic Organizations

The movement for the right to walk was led mostly by non-governmental organizations as it addressed mobility rights for the disabled and implied a close link between the right to walk and equity for the transportation poor. Civic organizations sought modal shifts to green transportation such as bicycles and called for measures aimed at pedestrian safety including children. Campaigns in the early stage such as 'the co-walking festival for the promotion of mobility rights for the disabled and the mobility handicapped' in 1994 and 'the bike ride in celebration of Earth Day' in 1995 are included this concept.

Civic organizations joined in partnership with other non-governmental organizations after realizing that joint action is more powerful than individual activities. They also banded together with experts affiliated with government and research institutions, interest groups, and the press after awakening to the importance of joining with experts and building a consensus. Their efforts to promote the right to walk through partnerships were more successful in Seoul than in any other cities. For instance, the Citizen's Transportation Environment Center (present-day Citizen's Solidarity for Walkable and Sustainable City) joined hands with the Seoul City Council, the Seoul Development Institute (present-day Seoul Institute) to push various projects for the improvement of pedestrian environments in Seoul. As a result, Seoul declared building a

pedestrian-oriented transportation system would be the main transportation policy after the launch of a municipal local government in 1995 and created the Green Seoul Bureau in 1996. In addition, Seoul City started the Site Transportation Management and joined forces with relevant institutions and civic organizations to create car-free streets in Myeongdong, Insadong, and Gwancheol Neighborhood and designate Deoksugung Street as a "pedestrian-oriented green street" as part of its transportation improvement project.

The movement for the right to walk was led by civic organizations in various areas and also achieved political success at the government level, such as the legislation of school zones for ensuring safe routes to school (1995) by consistently demanding safety for school commutes and suggesting institutional alternatives. Civic organizations have channeled the interest of parents and the general public in children's safe school commute through civic movements. The fruits of their efforts were first felt in local governments and then was seen in the institutionalization of relevant policies by the central government. This demonstrates the great ripple-effects of activities by civic organizations.

One of the achievements of the civic movements for the right to walk is crosswalk restoration.[1] The Networks for Green Transport and other civic groups conducted a campaign for the installation of crosswalks in ten locations including Gwanghwamun and Sinchon Rotary. The campaign was also designed to show the power of public-centered movements.

In September 1998, civic groups urged residents to sign the petition for crosswalk restoration and sent it to Seoul city government and the Korean National Police Agency under the names of six organizations, which drew the attention of the media.[2] As a result, a north-south crosswalk in

1) In accordance with the regulation of the Road Traffic Act that prohibits the redundant installation of road-crossing facilities such as crosswalks, overpasses, and underpasses, crosswalks began to disappear with the opening of subways and overpasses and underpasses took over the role of crosswalks.

2) In December 1998, Seoul City announced that it would replace crosswalks in six areas including Gwanghwamnun and Sinchon during the first half of 1999, saying that it concluded that the six among the ten areas civic organizations called for the installation of crosswalks.

Gwanghwamun was installed in 1999, in front of the Seoul Arts Center in 2000, and in Anguk-dong Rotary in replacement of the pedestrian overpass in 2001. The east-west crosswalk in Gwanghwamun was restored in 2005. The restoration of crosswalks in Seoul affected other local cities and changed the urban policy to replace pedestrian overpasses with crosswalks in Seoul, Busan, and many other local cities.

Section 2

Expansion of Pedestrian Rights (Late 1990s – Mid-2000s)

1. Enactment of Pedestrian Ordinance and Establishment of Master Plans for Pedestrian Environment Improvement by Local Government

The movement for pedestrian rights, which had been categorized into various issues, was taken a step further and pedestrian rights were established as part of the universal rights that people were entitled to through the enactment of pedestrian ordinances and the establishment of master plans for pedestrian environment improvement based on the ordinances.

Seoul City took the initiative in enacting pedestrian ordinances in January 1997. In 1996 a group of experts, Seoul City officials, and the Seoul Metropolitan Council led by civic organizations held workshops and forums to form a consensus on the necessity to enact ordinances and set basic goals. As a result of the groundwork laid out by them, Seoul City enacted the Seoul Metropolitan Government Framework Ordinance on Securing of Pedestrians' Rights of Way and the Improvement of the Pedestrian Environment (Seoul City Pedestrian Ordinance). It not only carried the symbolic meaning that the city publicly acknowledged pedestrian rights but it also stipulated the

responsibility of local governments for the protection of residents' right to walk safely.

Seoul's pedestrian ordinance stipulates residents' rights and duties along with Seoul's basic responsibilities to protect them by drawing up basic plans every five years and yearly action plans. Since then other cities followed in enacting pedestrian ordinances including Jeju in 1999, Busan and Gwangju in 2000, and Suwon, Mokpo, and Daejeon in 2001. The pedestrian ordinances enacted by these cities all stipulate that the cities should draw up a master plan for the pedestrian environment every five years. Seoul has established its master plan twice, first in 1998 and again in 2005. Some cities even completed basic plans before the enactment of their pedestrian ordinance. For example, Daegu completed the Daegu City Basic Plan for the Improvement of the Pedestrian Environment in April 2003 and enacted a pedestrian ordinance in October 2004. The basic plan includes an analysis and assessment of pedestrian environments, purposes of the plan, action plans for the goals, and diverse pilot projects.

2. Pedestrian Environment Improvement Projects of Various Local Governments

Local governments have undertaken various projects as part of their basic plans or special policies involving pedestrians. Below is a brief description of Seoul's Creation of Walkable Streets Project and the project for creating a transit mall in Daegu City.

As part of the Creation of a Walkable City Project Seoul launched for the enhancement of pedestrian safety and convenience as well as improving conveniences for easier usage of the subway, the Creation of Walkable Streets Project included the creation of exemplar streets and specialized streets. For the exemplar streets project, Seoul City and each of its' districts selected 21 streets including Donhwamun Street in Jongno District, and improved the street environment with budget support from the city.

The project for the creation of specialized streets included the creation of a history and culture trail, walkable green streets, scenic streets, refurbishment of streets damaged by subway construction, and installation of sidewalks. Among them Deoksugung Street served as a major model of walkable streets as it was Seoul's first shared space for pedestrians and motor vehicles. However, this project had only limited success due to a lack of planning, frequent revisions, and excessive emphasis on facilities, among other issues. Nevertheless, it resulted in various positive effects as it attracted media attention and the public recognized the importance of pedestrian rights (Road Traffic Authority, 2005).

Daegu designated a 1.05-km section of Jungang Road, a major street in Daegu, as a transit mall. Jungang Road belonged to the area that was beginning to be "ghettoized" and losing commercial vitality due to the donut effect. The section designated as a transit mall had a narrow width (roughly 22 meters), which made it difficult to fulfill its function as an arterial road, and a poor pedestrian environment due to illegal obstructions on the streets, narrow sidewalks, and illegal parking mixed with a considerable pedestrian volume.

In February 2003, Daegu gave shape to its plan to turn Jungang Road into a transit mall in its Public Transportation-Oriented Comprehensive Transportation Measures. One of the most serious obstacles in designating the street into a transit mall was the opposition by nearby merchants and interested parties. The city then made a concerted effort to win their cooperation by holding various meetings and investor relations conferences for seven years until December 2009. The city turned the street into a pedestrian and bus-oriented area, but emergency vehicles and bicycles were allowed and taxis could run only at night from 10 P.M. to 5 A.M. (YU Yeong-geun and LEE Sang-yong, 2010). It also linked nearby streets, including Dongseong Road and Yangnyeong Street (medicinal herb street), to form a network with Jungang Road as a connecting space. In addition, the city has come up with various ideas to vitalize the nearby commercial districts, increase areas for cultural events and performances, and create a

cultural district linked to nearby parks and the medicinal herb market. Seoul followed Daegu in creating a transit mall at Yonsei Road and the cities of Busan, Incheon, and Suwon are also planning or considering the creation of transit malls.

3. Introduction of a Safety Zone for Pedestrians and People with Mobility Difficulties

The early national policies for the improvement of pedestrians' rights were carried out along with local governmental projects or followed afterwards. They focused mostly on designating safety zones for the transport vulnerable including children and seniors while also making and safety zones for all pedestrians.

With poor environments along routes to school and a growth in traffic accidents involving children, experts and civic organizations consistently demanded governmental measures to ensure children's safety which led the government's Administrative Reform Committee to introduce the school zone system in 1993. In January 1995, the government revised the Road Traffic Act to designate certain areas around kindergartens and elementary schools in order to regulate traffic or ban it outright. On September 1, 1995 the government enacted the Regulations on the Designation and Management of School Zones which stipulate the process and criteria for the designation of child safety zones, installation of safety features, and follow-up management of these zones.

In 2004 the government attempted to implement the 'green zone' system similar to the 30 zone in Europe and other nations; a pedestrian zone with 30 km/h speeds for pedestrian safety and convenience. The National Police Agency, which was responsible for the project, drew up the action plan in August 2004 and each police agency across the nation chose 18 green zones to supervise on a trial basis.

However, the enactment of the Act on Promotion of the Transportation

Figure 2.1 Pedestrian safety zone trial

Convenience of the Mobility Handicapped, which introduced the 'pedestrian priority zone' similar to the green zone, raised the question of a political overlap. Accordingly, the government decided to end the pilot project by unifying green zones with pedestrian priority zones and adding necessary particulars to the Road Traffic Act.

Section 3

The Mature Stage of Pedestrians' Rights (Later Half of the 2000s)

1. Enactment of Legislation Related to the Ensuring of Pedestrian Rights

As the pedestrian-related projects led by local governments posed many problems, well-prepared and fair national policies were called for and a series of fundamental laws on pedestrian rights were enacted. The Act on Promotion of the Transportation Convenience of Mobility Disadvantaged Persons was passed and included measures to enhance pedestrian safety and convenience was followed by enactment of the Pedestrian Safety and Convenience Enhancement Act which stipulates the government's responsibility to guarantee pedestrians' rights to travel and live in a safe pedestrian environment.

The Act on Promotion of the Transportation Convenience of Mobility Disadvantaged Persons was enacted in January 2005 and implemented in January 2006.[3] It aims to expand convenient mobility equipment by means of transportation and passenger facilities and on roads, and through the improvement of the pedestrian environment so that mobility disadvantaged persons may travel safely and conveniently. With these acts as the basis, the

government aimed to establish human-oriented advanced transportation systems and boost social participation of people with mobility difficulties and improve welfare in transport. The acts include establishment of plans to improve transportation convenience of mobility disadvantaged persons, types of mobility convenience facilities and criteria for their installation, introduction and increased usage of low-floor buses, a measurable scale of new special transportation means and eligibility, and designation and format of pedestrian priority zones.

There was a consensus on the need for the legislation of pedestrian-related basic acts for the drastic improvement of the pedestrian environment. Bills for the protection of pedestrian safety was proposed three times in 2007 and 2009 in the National Assembly but was scrapped due to conflicts among lawmakers and governmental departments. The national government formed the Expert Advisory Committee to collect public opinion and drew up the draft of the Pedestrian Safety and Convenience Enhancement Act in April 2010. Consisting of 30 articles and two addenda, the act was proclaimed on February 22, 2012 and went into effect on August 23, 2012.

The Act is significant in that it legally defines pedestrian rights and describes the duties of the national and local governments to ensure pedestrian rights. It also stipulates that local governments should establish a basic plan for pedestrian environment improvement every five years and designate areas with high pedestrian volumes or a wealth of culture and tradition as pedestrian environment improvement districts to implement a project for improving pedestrian environments.

The Road Traffic Act expanded the protection of people with mobility difficulties by designating protective areas for the elderly (2007) and disabled

3) The previous act on the promotion of the convenience of mobility disadvantaged people such as people with physical disabilities, seniors, and expecting mothers, took effect as early as 1998. However, it included only passenger facilities and roads without any reference to transportation or comprehensive consideration about the transportation of mobility disadvantaged persons. Accordingly, it had been pointed out that the act did not contribute much to the promotion of the convenience of mobility disadvantage people and that mobility disadvantaged people were exposed to the risks of traffic accidents due to the poor pedestrian environment.

(2011) and combined them together with protective areas for children (school zones) in accordance with the Regulations on the Designation and Management of Protective Area for Children, Aged, Disabled in January 2011. It also doubled fines for traffic violations within school zones as a countermeasure to tackle consistent traffic accidents in school zones.

2. Pedestrian Environment Improvement Projects Led by the Central Government

The pedestrian environment improvement projects independently pushed by local governments were successful but levels of success ranged by region. In order to solve this problem, the central government launched various projects for pedestrian environment improvement by providing grants to match local government spending.

The projects for the creation of pedestrian priority zones and pedestrian environment improvement zones are an important part of the pedestrian environment improvement project led by the central government.

The Pedestrian Priority Zone Project aims to create pedestrian friendly environments by designating pedestrian priority zones in accordance with the Promotion of Transport Convenience of Mobility Disadvantaged Persons Plan.[4] The project was carried out over a period of five years from 2007 to 2011 and designated and managed 23 areas as pedestrian priority zones on a trial basis. Since 2012, one area is designated annually as a pedestrian priority zone and enhanced through the application of various forms of traffic calming, street pavement overlay, and reform of streetscape, seating, and lighting facilities.

The Pedestrian Priority Zone Project is designed to create a pedestrian-

4) The pedestrian priority zone refers to the pedestrian-centered living zone for safer and easier passing of the pedestrians than the cars, and organically connects major facilities and places in the area.

Table 2.1 Pedestrian environment improvement projects of the central government

Department	Project		Period	Funding
Ministry of Security and Public Administration	Creation of safe pedestrian environments	• Improvement in areas with the poor pedestrian environments • Installation of sidewalks, linkage with disconnected sidewalks, sidewalk leveling, etc. • Installation of access roads for agricultural machines, livestock, and bicycles	2009-2012	State subsidy
	Pedestrian environment improvement districts	• Plan for each pedestrian environment type (6) • Change from linear approach to spatial approach • Plan → implementation → assessment system for pedestrian environment improvement	2013-	State subsidy
	Improvement of school zones	• Improvement of safety facilities for creating safe routes to schools • Installation of signs, pavement overlay, speed humps, safety fences, etc.	2003-	State subsidy
Ministry of Land, Infrastructure and Transport	Pedestrian priority zones	• Pedestrian environment improvement in residential and commercial areas with poor pedestrian environments and high risks of traffic accidents • Installation of safety facilities and application of traffic calming tools	2007-2011	State subsidy
	Pedestrian convenience zones for mobility disadvantage persons	• Improvement of areas with poor pedestrian environments and areas that pose a high risk of traffic accidents involving people with mobility difficulties		State subsidy
	Pilot project for transit mall construction	• Environment improvement project for the creation of a pedestrian, bicycle, and public transportation-oriented urban spatial structure • Regulation on vehicle traffic and facility installation for controlling traffic		State subsidy
	Installation of sidewalks on state roads	• Installation of sidewalks on state roads without sidewalks		State subsidy

Source: Korea Research Institute for Local Administration, 2013.

oriented safe and pleasant environment by controlling traffic, caring for people with mobility difficulties, removing various factors that put pedestrian safety at risk, and improving the landscape. The basic goals include safety, mobility, accessibility, convenience, comfort, and a sense of place. In order to be designated as a pedestrian improvement zone, an area should be one to two square kilometers in size and surrounded by a local arterial road. The pedestrian improvement zones are categorized into six zones depending upon their pedestrian environment traits including social safety zones, walkable zones, agricultural zones, zones for people with mobility difficulties, and public transportation zones.

Figure 2.2 Before and after pedestrian priority zone construction

The project employs an assessment and planning system for sustainable management and maintenance and is based on spatial analysis away from previously applied linear approaches. In other words, the project undertakes a pre-post analysis, cost-efficiency analysis, resident satisfaction survey, and conducts a maintenance inspection every year.

Section 4

Policy Achievements and Future Directions

1. Policy Achievements

Since the introduction of the pedestrian rights concept, Korea has made various efforts to secure pedestrian rights and seen considerable achievements over the past 20 years. Above all, the Korean government enacted the world's first fundamental pedestrian-related act which recognizes people's right to walk in a safe and convenient environment and prescribes the national and local governments' duties to guarantee people's right to safely and conveniently walk in a pleasant environment (Article 3, Pedestrian Safety and Convenience Enhancement Act). Also, the Korean government introduced various policies for child safety, such as the introduction of the school zone system which cut traffic fatalities for children by almost one-third in only five years, according to 2011 statistics.

Korea has also succeeded in shifting paradigms related to the pedestrian environment improvement projects. Until a few years ago, the Korean government focused mainly on linear aspects in improving the pedestrian environment, such as the installation of new sidewalks, connection of disconnected sidewalks, and the designation of safety zones for people with

mobility difficulties. However, it now realizes the importance of spatial perspectives in improving the pedestrian environment and approaches the issue with pedestrian networking in consideration.

2. Future Directions

Despite increasing public awareness of the importance of pedestrian rights and various successful efforts for the security of them, Korea continues to be ranked as one of the lowest among OECD member countries in pedestrian-involved traffic fatalities and it is poor in terms of pedestrian environments. What needs to change for Korea to enhance pedestrian safety, convenience and security in the true sense?

First of all, changes in the public conception of walking and political support at the governmental level are imperative. The paradigm shift in the formula from "street minus roadway equals sidewalk" to "street minus sidewalk equals roadway" is important in urban plans and street maintenance.

Pedestrians' rights on roads should be upgraded. 30 km/h zones are undergoing a trial basis in Korea and should be institutionalized legally as in Europe and Japan. Defining various concepts by law, such as safety zones for mobility disadvantaged persons including children, seniors, and the disabled, should be unified or redefined in relation to various safety zones and priority zones. Moreover, the concept of the pedestrian priority zone, in which pedestrians use entire streets and pedestrians' prior right-of-way is acknowledged, should be introduced beyond simply installing speed limits.

Last but not least the safety of pedestrians crossing roads should be reinforced. It includes punishment of jaywalking, which is defined as crossing a road without using a crosswalk, and prohibition of installing crosswalks near a pedestrian overpass or underpass, or another crosswalk within a 200 meter distance.

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Chapter 03

Korea's Second-Rate Pedestrian Environment and Campaigning by Civic Movements

KIM Eun-hee
Head,
Urban Action Network Policy Research Center

JEONG Seok
Professor, Dept. of Urban Planning and Design,
The University of Seoul

LIM Sam-jin
Former Research Consultant,
The Korea Transport Institute

Section 1

Seoul, an "Unwalkable" City

1. Intersections without Crosswalks

There is an intersection near Sincheon Station and not far from Jamsil Stadium, a major venue of the 1988 Seoul Olympic Games. The area was packed with apartment complexes on three sides with Saemaul Market on the southwest near the station of Subway Line 2. The apartment complexes, which used to consist of low-rise, five-story apartment buildings, are now all reconstructed into high-rise buildings with nearly 30 floors each. Now there are crosswalks in all directions but 15 years ago there used to be only two. With the opening of Subway Line 2 in 1980 two crosswalks across Olympic Road were removed. You may wonder why they disappeared with the opening of the subway station. Is it pure coincidence?

As crosswalk installation in Korea is governed by the Road Traffic Act, the answer is hidden in this Act. According to Article 11, Clause 4 of the Road Traffic Act Enforcement Rule (criteria for crosswalk installation):

Crosswalks shall not be installed within 200 meters from an overpass, underpass, or other crosswalks. On the proviso, according to Article 12 or Article 12-2, it does not apply when it is within a section designated as a

school zone or a senior safety zone, or deemed necessary for the safe passage of pedestrians.

Figure 3.1 A woman with baby stroller crossing a road without a crosswalk (1996)

In other words, a crosswalk should not be installed along with an overpass, underpass, or another crosswalk within 200 meters, which seems to serve as the legal criteria for the prohibition of crosswalk installation, rather than those for crosswalk installation. Accordingly, many crosswalks in Seoul, including the one near Sincheon Station, have been legally removed with the construction of subway stations.

Apartment residents across the street in Sincheon Neighborhood may have to cross the street often, in order to visit to a doctor's office, a pharmacy, a bank, or a market, especially when they are with their children in strollers. Below is a photo this author personally took while conducting fieldwork on a summer's day in 1996 near Sincheon Station for my study on pedestrian environments in Seoul.

Suppose a woman living in Jamsil Apartment Complex II is trying to cross a street with a baby in a stroller to go to Jamsil Apartment Complex I. In this case, she has three options:

First, she could fold the stroller and hold it with one hand and hold the baby in the other while she takes the underpass. Second, she could walk to the closest crosswalk, which is rather far away, and cross there. Or third, she could jaywalk as shown in Figure 3.1.

In 1997 only 51.7 percent of intersections in Seoul had crosswalks in all directions which means that nearly half of all intersections in Seoul were not equipped with crosswalks or at best only partially. It is a vivid example of a car-oriented, inhumane traffic operation with little consideration of people and an example of a backward city where priority is given to cars.

At that time, civic activists who emphasize pedestrian rights insisted that the expression 'crossing of a non-crosswalk' be used instead of jaywalking, which implies illegality.

Such a conceptual change does not happen overnight. Pedestrians, a relative minority in traffic, could bring about positive changes in the pedestrian environment by raising their voices to influence society. In Korea, changes in the pedestrian environment have not been possible without powerful civic movements which ultimately led to the enactment of the Pedestrian Ordinance and the Pedestrian Act.

2. Short Pedestrian Crossing Time

Here is another example that proves Seoul is an "unwalkable" city. Take a walk some 250 meters toward Jamsil Stadium along Olympic Road from Sincheon Station and you encounter a crosswalk. This is the crosswalk the lady in the photo above could cross with a baby in a stroller if she could manage to come here. When you witness an elderly individual about to cross that intersection pay close attention to the pedestrian crossing signal. The person starts crossing the street when there is a green light, but it is likely that they would get stuck in the middle of the road when the light turns red. That person still has a long way to go to cross the road but the traffic lights do not take into account those with a slow walking speed and cars already enter the intersection when the crosswalk signal turns red. This was the brutal reality of the pedestrian situation in Seoul in the mid-1990s. Seoul at that time was a city that was certainly far from walkable; rather it was a brutal place where you had to risk your life when crossing a street.

How could this happen in a capital city like Seoul? The Manual for Road Traffic Safety Facilities published by the National Police Agency, which figures that the average walking speed of adults is 1.0 meter/second and that of children and seniors is 0.9 meter/second, stipulates that the pedestrian crossing time should be determined based on the width of a crosswalk and

the number of pedestrians under consideration. However, the pedestrian signal time in actuality has been determined based on 1 meter/second. without proper consideration of the crosswalk width or the number of pedestrians. The 1 meter/second is based on a healthy adult and is not sufficient for most pedestrians to cross a road safely. Pedestrians can cross a crosswalk safely within this time limit only when they wait for the light to change and start crossing the road as soon as the light turns green.

It poses even more serious problems in Gangnam where many streets are as wide as 50 meters with 14 lanes. It is impossible for pedestrians to cross the road in time unless they start running as soon as the light turns green.

According to the National Survey on the Pedestrian Traffic Environment jointly conducted in May 1994 by Media Research and Networks for Green Transport 85.6 percent of respondents said green lights did not stay green long enough (17.2 percent said "too insufficient" and 68. 4 percent said "rather insufficient") which far outnumbered the 14.3 percent who said the lights stayed green "sufficiently" (13.1 percent said "generally sufficient" and 1.2 percent said "very sufficient").

The duration of the walk light should be set by taking into account the length of a crosswalk, pedestrians' walking speeds, pedestrian reaction time in recognizing the green light (normally five to seven seconds), and pedestrian safety. Since pedestrian walking speeds depend on gender, age, and road width, the pedestrian crossing time should be determined based on these factors and allow sufficient time for pedestrians' safe crossing.

In addition to the short crossing time, long traffic signal cycles also lead to pedestrians jaywalking and subsequent traffic accidents. In downtown areas with high pedestrian volumes, pedestrians often find themselves waiting for a long time to cross a street despite little vehicle traffic. At some intersections the pedestrian crossing signal time is only one-fifth of the total signal cycle, which forces pedestrians to run or jaywalk when the green light starts flashing.

The flashing pedestrian traffic signal poses another serious problem. All traffic signals in Korea, except those near elementary schools, begin flashing

when pedestrians cross one-third of the crosswalk to indicate that the signal is going to change soon. The traffic signals should guarantee a minimum time for pedestrians to cross the street safely but when duration of the signal is set to less than 1 meter/second pedestrians are in fact stripped of the right to walk at the speed of a healthy adult all in the name of "safety." Flashing green lights also unwittingly induce drivers to start to edge into the crosswalk which makes pedestrians feel intimidated.

According to a survey conducted in 1995 by the Networks for Green Transport and Media Research, 79.5 percent of the respondents criticized the fact that the green light would begin to flash when they cross one-third of the crosswalk, far outnumbering the 20.4 percent who responded that they were not bothered by the flashing green light. This survey tells us that the Korean traffic signal system needed to change.

Why then were cities in Korea so unfriendly to pedestrians? What is the fundamental reason? Let us compare San Francisco with Seoul. In a residential area in San Francisco you can see an elderly couple crossing a street. The couple is almost in the middle of the crosswalk but the pedestrian crosswalk light is still solid green. The light stays green even when the couple has crossed the street and walked far away. What then makes Seoul so different from San Francisco?

The main reason can be found in Korean culture and governmental policy that give greater priority to motor vehicles than to pedestrians. But a more

Figure 3.2 Streets in San Francisco (left) and those in Jamsil, Seoul (right)

fundamental reason lies in the width of the streets as roads in residential areas of San Francisco in Figure 3.2 are as narrow as 20 meters.

It takes a long time for pedestrians to cross a wide road but the time allocated to each phase of that signal cycle cannot be lengthened in proportion to the necessary pedestrian crossing time. On the other hand the signal cycle of a narrow road can be readily adjusted for the convenience of pedestrians. A comparison of a map or satellite photo of the road network of San Francisco and that of Jamsil in Seoul clearly shows the difference.

In Korea wide streets were once regarded as a symbol of a modern and advanced city have been constructed in every city in the country. However, they are the very reason why many cities in Korea are unwalkable. Seoul is not the only city with wide streets; many smaller cities have widened streets and continue to build more.

3. Crosswalks without Pedestrian Safety Islands

It is rather tough to cross a wide street and they are readily found in every city in Korea. For instance Taepyeong Road in downtown Seoul is roughly 40

Figure 3.3 Crosswalk without a refuge island on Taepyeong Road, Seoul, (left) and a refuge island in London (right)

meters wide but there are no pedestrian refuge islands.

In European cities, refuge islands are readily found on streets even if they are not very wide as they allow pedestrians to cross a road safely physically and comforting psychologically. Refuge islands provide pedestrians space to wait for a green light in case they cannot cross a road on one traffic signal cycle.

Refuge islands are also used to reduce the speed of cars driving through. Islands are installed at an acute angle which renders them like an obstacle. It is designed for drivers to drive with caution.

4. Increase in Obstacles along the Sidewalk

Despite various efforts for the improvement of pedestrian environments there have been many problems that threaten pedestrian safety in various situations due to the lack of public awareness of pedestrian rights and institutional inertia. Pedestrian rights are often violated even on sidewalks due to obstacles. A variety of obstacles such as subway station entrances and various protruding objects such as traffic signal controller boxes, street lamps, utility poles and electrical boxes reduce the clearance width of the sidewalk causing pedestrian inconvenience and discomfort. In a highly populated urban environment various infrastructural facilities occupy sidewalks reserved for pedestrians and aggravate the pedestrian environment. These facilities, which are designed for social benefits, are given priority over pedestrian uses.

In order to improve pedestrian environments proper guidelines for the installation of infrastructural facilities should be prepared by each public institution in order to ensure pedestrian rights and tighten regulations on violation of said rights. However, the absence of standardized criteria for the installation of infrastructural facilities for each organization has worsened the issues of maintaining balance between pedestrian rights and infrastructural facilities.

Figure 3.4 Example of obstacles to a pedestrian environment

It seems that the more populated an area is, the more unsatisfactory its pedestrian system is. To give an example, most areas near subway stations are populated with commuters and serve as traffic nodes crowded with large markets, cultural spaces, and entertainment facilities. Despite the high population mobility demands these environments are among the worst for pedestrians.

Many sidewalks are too narrow or broken without clear separation between pedestrians and vehicles. There are also streets without sidewalks. Also, many sidewalks are occupied by tenants and drivers as if they are private property. Cars illegally parked on sidewalks and parking lots of buildings that invade sidewalks are all too common. Reckless installation of benches without consideration of pedestrian mobility also makes walking inconvenient and unpleasant. Moreover, a variety of construction works, such as the construction of a building or a road, also forces pedestrians to endure inconvenience or even danger.

According to A Survey on the Pedestrian Environment near Subway Stations conducted by the Networks for Green Transport in 1995, as many as 11 out of 32 subway station areas had sidewalks as narrow as 1 meter or less and 22 subway station areas had sidewalks that were narrowed or disconnected without any prior warning and were no longer functioning as sidewalks. Additionally, 20 areas had sidewalks that were way too narrow for the number of pedestrians.

The segregation between vehicles and pedestrians on side streets near subway stations shows how the pedestrian environment has been neglected despite the importance of the areas in the daily lives of local residents. Among the 32 areas surveyed, 22 areas had side streets with no separation between vehicles and pedestrians. Also, four out of 13 side streets with traffic

Figure 3.5 Second example of obstacles to a pedestrian environment

lanes had no pedestrian separation structures. The study shows that even the side streets that separate pedestrians from vehicles have sidewalks only on one side and there are many sidewalks which pedestrians have no access to as they are occupied by street vendors, vehicles illegally parked, and illegal offloading and merchandise storage.

Pedestrian rights are also violated by street vendors on the sidewalks as well. Street vendors illegally occupy the public facilities and sidewalks to sell various goods and food. As street vendors are found mostly in areas with a large floating population they pose various problems from pedestrian perspectives which can be summarized as follows:

1. Illegal occupation of footpaths, making pedestrian spaces smaller
2. Interruption of the pedestrian traffic flow due to people gathering around street vendors
3. Noise and odors from street vendors causing pedestrian discomfort and unpleasantness
4. Negative impact on the urban landscape

Despite diverse efforts to solve these problems the government had difficulties in improving the situation effectively mainly due to the lack of consistent policy enforcement and issues related to illegal vendors' livelihood. Accordingly, it is imperative to come up with a unified set of regulations to ensure pedestrian rights and changes in public awareness.

5. Streets without Sidewalks

The pedestrian environment is even worse in rural areas. Many state and rural streets have no sidewalks which expose pedestrians, especially the elderly, to life-threatening risks.

It had almost been a time-honored customary practice to create a roadway first and then a sidewalk if there was space left. In other words, the creation of a sidewalk was an option. In Japan, the person who changed this conception was Minobe Ryokichi who was elected the governor of Tokyo in the 1967 local elections. As a former professor, Minobe Ryokichi served three terms after winning the 1971 and 1975 elections and contributed a great deal to the transformation of the urban government policy in Tokyo.

Minobe Ryokichi's innovative urban policy had an impact on the transportation and road planning in Tokyo. Minobe Ryokichi's road policy gave priority to sidewalks when constructing roads and changed the focus from automobiles to pedestrians in implementing road policies.

His idea of creating a necessary sidewalk first when building a road and then a roadway with the space available was valued as innovative 40 years ago and corresponds with such modern concepts as a "road diet," "pedestrian priority road," and "living street." These ideas have evolved into the recent approach called "shared space" which is designed to blur the boundary between vehicle traffic and pedestrians.

Figure 3.6 Rural streets without sidewalks

Source: Citizens' Solidarity for Participation and Self-Governance of Gunsan

The pedestrian environment in Seoul and other cities of Korea in the 1990s was far from ideal. Unwalkable cities, where pedestrians had to put their lives at risk, and urban areas where you did not feel like walking were the cities of Korea in the past.

Section 2

Pedestrians as Victims of Fatal Traffic Accidents

1. Half of Traffic Fatalities Were Comprised of Pedestrians

Pedestrian safety in the traffic system and culture as such may be virtually as impossible to change as to draw water with a fishnet. The reality of a traffic system that suppresses pedestrian rights is reflected well in the nature of traffic accidents in Korea.

The unfortunate traffic culture in Korea, dominated by motor vehicles, is evident in Korea's dismal record in terms of the types of traffic accidents. Particularly in the early 1990s, Korea shifted into an era of motorization with a sharp increase in the number of motor vehicles and traffic volume. On the other hand, Korea had not yet established its traffic culture well and consequently saw a rapid growth of traffic accidents. With the mass distribution of passenger vehicles, the total number of motor vehicles in Korea has shown a steep escalation since the mid-1980s. The number of traffic fatalities reached 10,000 in 1988 and has continued to grow.

The most notable aspect of traffic accidents in Korea at that time was the high percentage of traffic accident pedestrian deaths compared to other nations, as the number of pedestrian deaths accounted for almost half of all

traffic deaths in the nation. As Table 3.1 shows, the total number of pedestrians among 13,429 deaths from road traffic accidents in 1991 was 6,952 or 51.77 percent, which was slightly lower than 49.85 percent in 1992, 50.38 percent in 1993, and 44.21 percent in 1995. Nevertheless, the high percentage of pedestrian deaths proved the dismal record of traffic accidents in Korea.

The year of 1991 was marked by the most number of pedestrian deaths in Korean history. In that year, as many as 6,952 pedestrians were killed on the streets. The number of traffic accidents involving pedestrians has gone down since 1991, as the number of pedestrian deaths per 100,000 people was 16.06 in 1991 and 13.26 in 1992.[1]

Table 3.1 Traffic accidents in Korea in the 1990s

Year	Population (1,000 people)	No. of traffic deaths	Pedestrian deaths	Pedestrian death rate among all traffic fatalities (%)	Pedestrian deaths per 100,000 people
1991	43,296	13,429	6,675	49.7	15.42
1992	43,748	11,640	5,542	47.6	12.67
1993	44,195	10,402	4,849	46.6	10.97
1994	44,642	10,087	4,356	43.2	9.76
1995	45,093	10,323	4,295	41.6	9.52
1996	45,525	12,653	4,788	37.8	10.52

Source: Road Traffic Authority, A Statistical Analysis of Traffic Accidents in Korea, 2013.

The transport poor, who are relatively less dependent on cars, tend to suffer from the dominance of motor vehicles and even find their right to live under threat. A significant amount of traffic accident deaths were of children; 79.2 percent in 1991, 78.3 percent in 1992, and 74 percent in 1993. This highlights the extent to which the traffic environment in Korea had been highly unfavorable to pedestrians and especially children.[2]

1) The number of pedestrian deaths reached its peak in 1996 and started to decrease, and recorded 2,082 deaths in 2010 and 2,044 deaths in 2011. The number of pedestrian deaths per 100,000 people also has decreased by 4.21 in 2010 and 4.11 in 2011.

2) The number of child deaths from road traffic accident has decreased consistently thanks to the introduction of the School Zone, down to 169 fatalities (with 94 pedestrians) in 2010, 113 fatalities (with 57 pedestrians) in 2011, and to 110 fatalities (with 66 pedestrians).

Table 3.2 Traffic accidents involving children in the early 1990s in Korea

Year	No. of child deaths from road traffic accidents	No. of child pedestrian deaths	No. of child pedestrian injuries	Child pedestrian death rate among total traffic accidents (%)
1991	1,454	1,151	39,279	79.2
1992	1,114	872	34,676	78.3
1993	919	680	31,104	74.0

Source: The Road Traffic Authority, A Statistical Analysis of Traffic Accidents in Korea, 2013.

2. High Rates of Traffic Accidents Involving Pedestrians in Korea in Comparison with Other Nations

The most serious problem with traffic accidents in Korea in the early 1990s was the high number of pedestrian fatalities. Table 3.3 shows the remarkably high rate of traffic accidents involving pedestrians compared to traffic accidents in other nations.

The average rate of traffic accidents involving pedestrians in France, Germany, Sweden, and Australia ranges from 13 to 18 percent and in Japan and Britain ranges from 25 to 32 percent. However, Korea shows an exceptionally high rate of pedestrian deaths, especially among children and elderly people, indicating the seriousness of Korea's traffic environment that threatens pedestrian safety. A comparison of pedestrian deaths per 100,000 people in various nations shows the pedestrian danger index in Korea is four to ten times higher than some nations; 2.95 in Japan compared to 11.00 in Korea, 1.07 in Sweden compared to 11.00 in Korea.

The international road traffic accident statistics, which were presented at the Korea-Japan symposium held in Seoul and jointly sponsored by the Networks for Green Transport and Japan's Association for the Research of Transportation Problems and Human Rights in April 1996 hit the headlines, creating quite a sensation.

There are various reasons why Korea has seen so many traffic accidents in general and traffic accidents involving pedestrians in the early 1990s.

Table 3.3 Pedestrian deaths in Korea and other nations as of 1993

Nation	No. of pedestrian traffic fatalities	No. of total traffic fatalities	Ratio of pedestrian traffic fatalities (%)	No. of pedestrian deaths per 100,000 people
USA	5,638	40,115	14.05	2.18
Canada	473	3,601	13.13	1.73
Australia	330	1,951	16.91	1.86
Germany	1,580	9,949	15.88	1.94
Britain	1,241	3,814	32.54	2.20
France	1,131	9,568	11.82	1.96
Sweden	94	632	14.87	1.07
Italy	923	6,645	13.89	1.62
Netherlands	147	1,252	11.74	0.96
Japan	3,676	13,269	27.70	2.95
Korea	4,849	10,402	46.61	11.00

Source: Revised from Statistics Bureau of Japan, White Paper on Traffic Safety, 1995.

Above all, Korea failed to establish a proper traffic culture and increase public awareness of road safety despite the rapid increase of motor vehicles during this period. Also, Korea failed to consolidate its social system that could regulate the tyranny of drivers with road rage propelled by the social conception that viewed impatience as a sign of economic success and national growth.

Considering such high rate of traffic accidents, it was only natural to come up with tight controls over road rage, such as speed management, but it was just the opposite. Traffic accidents not related to fatalities, drunk driving, or other infringements included in the ten categories of gross negligence were exempted from arraignment if they were fully insured. They were not even fined. The car insurance premium was not even affected by violations of law, unlike that in the United States.

In the 1990s, laws related to traffic safety included several poisonous clauses that unduly protected drivers. For instance, a driver who did not drive defensively in an alley and critically injured a pedestrian was not punished if he or she was covered under comprehensive coverage. This unwittingly overprotected drivers and indirectly promoted the social trend that gave

priority to pedestrians. Some of the laws were revised but some poisonous clauses still remain. In the traffic system pedestrian safety was hardly protected and the types of traffic accidents in Korea reflected it. Eventually pedestrians expressed their suffering by supporting and joining traffic-related civic movements.

3. Insecurity about Traffic Safety

A considerable number of traffic accidents involving pedestrians occurred in back streets and other places in residential areas. According to the statistical data gathered in 1994, 18.1 percent (1,831 pedestrians) of total traffic deaths and 16.4 percent (57,469 pedestrians) of road traffic injuries occurred on streets 6 meters or less in width. Also, 68.7 percent (6,935 pedestrians) of total traffic fatalities and 61.2 percent (214,597 pedestrians) of total traffic injuries happened on the streets as narrow as 9 meters or less.

Traffic accidents per se are dangerous enough but the fear of living

Figure 3.7 Newspaper article comparing traffic accidents with pedestrians among various nations

보행자 교통사고
선진국 10배수준

교통권신장 한·일 심포지엄

우리나라 보행자들의 교통사고율이 선진국에 비해 최고 10배나 높은 것으로 나타났다.

이런 사실은 녹색교통운동과 일본 민간단체인 교통권학회가 30일 프레스센터에서 공동으로 개최한 '교통권 신장을 위한 한·일 국제심포지엄'에서 발표된 일본 간사이대 아베 세이지 교수의 주제발표 논문에서 밝혀졌다.

일본 총무청의 95년도 교통안전백서 통계를 인용한 이 논문에 따르면, 지난 93년 우리나라에서 4천8백49명이 보행중에 사망해 전체 인구와 대비한 '보행자 교통사고 위험지수'는 11로, 비교 대상국중 가장 높게 나타났다. 이는 네덜란드의 0.96이나 스웨덴의 1.07의 10배 이상이며, 비교적 높게 나온 일본의 2.95에 비해서도 4배 가량 높은 것이다. 이 자료에 따르면, 또 전체 교통사고 관련 사망자에서 차지하는 보행자의 비율도 한국이 가장 높아 45.61%로 나타났다. 이는 네덜란드나 스웨덴의 11.74%, 11.82%보다 4배 이상 높으며, 일본의 27.70%의 2배 가까운 수치다.

녹색교통운동 임삼진 사무처장은 주제발표를 통해 "우리나라의 보행자 교통사고율이 이처럼 높은 것은 고도 경제 성장 과정에서 사람들이 너무 조급해지고, 자동차 소유자가 우월의식을 갖게 되면서 난폭운전자가 관을 치고

있는데도 이를 통제할 법과 제도가 뒤따르지 못하고 있기 때문"이라고 풀이했다. 임 처장은 또 "건축물과 보도 사이의 공간 확보를 위해 건축법상 건축물을 차도에서 일정 거리를 띄워 놓고 짓게 하고 있으나, 건축선 후퇴 공간이 차량통행로나 주차장 등으로 활용되고 있을 뿐 아니라 신호시스템이 보행자보다는 자동차 위주로 되어 있어 장애인과 노인 등 약자들은 물론 정상인들조차 보행에 큰 불편을 느끼고 있다"고 밝혔다.

아베 세이지 교수는 "94년 1년 동안 일본의 교통사고 사망자 수는 1만6백49명으로 한·일전쟁 사망자 1만3천4백명에 육박하고 있으며, 이 가운데 38%가 걷거나 자전거를 타고 가다 숨졌다"며 "자동차보다는 보행자 본위의 교통시스템을 만들어가야 한다"고 촉구했다.

조연현 기자

under a constant threat of traffic accidents poses psychological problems. According to the survey conducted in 1994 by the Networks for Green Transport and Media Research, 95.4 percent of the respondents when asked about the danger of traffic accidents involving children in school zones or on residential streets, said they were worried (53.3 percent said "very worried" and 42.1 percent said "fairly worried"), proving their fear. Especially, those respondents with children (97.2 percent) said they were afraid.

Children are not the only people who are exposed to the threat of traffic accidents. 87.9 percent of the respondents said they were afraid of being involved in traffic accidents in everyday life (34.7 percent said they were "highly afraid" and 53.2 percent said they were "fairly afraid") and only 9.6 percent said they were "not very afraid" or "not afraid at all." The poll showed that the majority of Koreans lived under the threat of experiencing traffic accidents in everyday life. When asked if they had family members or neighbors who had traffic accidents, 43.7 percent said yes while 56.3 percent said no, a figure that suffices to show the serious reality of the traffic environment in Korea.

Section 3

Campaigns for Pedestrian Rights and Seoul's Enactment of a Pedestrian Ordinance

1. Launch of Campaigns for Pedestrian Rights

It was civic organizations that raised questions about the seriousness of the pedestrian environment in Seoul and called for improvement. Their launch of campaigns for pedestrian rights is based on the seriousness of pedestrian traffic accidents as discussed in the previous chapter of this book. Civic movements for pedestrian rights started in 1993, along with various demands for the improvement of the poor pedestrian environment in school zones and the installation of crosswalks.

The term "pedestrian rights" was coined by civic activists, who put the common idea that "walking is also a right" in the spotlight. It is noteworthy that civic activists succeeded in bringing traffic-related issues, which had been viewed as matters related only to experts and administrative policies that require professional knowledge or skills, into the "realm of civil society and everyday life."

The Urban Walking Festival for the Promotion of Pedestrian Rights was held on June 20, 1993 by six civic organizations, including the Networks for Green Transport, Safe Kids Korea, Korea Healthy Walking Federation, and

the Korea Traffic Disabled Association, declaring walking as a full-fledged means of transportation. The campaign created quite a sensation. Over 1,000 people joined the parade from Seoul City Hall to Marronnier Park in Jongno 5-ga, calling for the improvement of pedestrian rights and security of pedestrian rights, both concepts that were quite new to most people in Korea. The event started with the proclamation of the Declaration of Pedestrian Rights, which had been neglected and denied for the sake of "economic growth and traffic efficiency" for the social restoration of pedestrian rights. The participants then called for the expansion of the budget for traffic safety for the improvement of the pedestrian environment, creation of school zones and residential zones within 500 meters of elementary schools, and the improvement of the road system and road facilities for pedestrian rights of people with physical disabilities.

Driven by the walking festival, the idea of "pedestrian priority" spread fast and experts, who tended to maintain car-oriented perspectives, became interested in pedestrian rights as young local urban designers and traffic experts began to introduce various policies related to pedestrian safety in other nations. While persistently and successfully demanding changes in

Figure 3.8 Newspaper coverage of the Urban Walking Festival for the Promotion of Pedestrian Rights

"보행권 보장" 걷기대회

내일 탑골공원 ~ 동숭동 마로니에공원

녹색교통운동등 15단체 '권리선언' 발표

도시교통체계가 갈수록 자동차와 차도 중심으로 짜이면서 안전보행이 위협받는 사례가 늘고 있는 가운데 시민의 보행권 보장을 촉구하는 걷기대회가 20일 오전 9시40분 서울 종로구 탑골공원에서 열릴 예정이어서 관심을 끌고 있다.

녹색교통운동·어린이교통안전협회 등 15개 교통·환경관련 시민운동단체 회원과 장애인·어린이 등 시민 2천여명이 참가할 이번 걷기대회는 참가자들이 탑골공원에서 동숭동 마로니에공원까지 인도를 따라 걸으며 쾌적한 교통환경 만들기와 보행여건 개선 등을 당국과 시민에게 촉구할 계획이다.

참가자들은 또 '보행자 권리선언'을 발표해 △보행권 신장을 위한 시민 의식개혁운동 전개 △안전보행을 위한 학교·주거생활권역 설치 △장애인의 보행권 보장을 위한 도로체계 개선 △자동차 배기가스 및 소음규제 강화 등을 7대 실천과제로 채택한다. 참가자들은 이와 함께 교통사고로 부모가 죽음을 잃거나 생활력을 잃은 가정의 어린이(교통유아)들에 대한 사회적 관심을 호소하는 시민모금운동도 펼치기로 했다.

대회집행위원장 최정현(37·녹색교통운동 사무국장)씨는 "교통사고로 숨지거나 다친 사람의 절반이 보행자인 데서도 드러나듯이 보행자의 안전이 심각하게 위협받고 있는 게 우리나라의 교통문화현실"이라며 "사람과 자동차가 조화롭게 공존하는 인간적인 도시교통환경 조성을 위해 시민들이 먼저 나서야 한다는 취지에서 이번 대회를 개최하기로 했다"고 말했다.

이들 교통·환경시민운동단체들은 이날 대회를 계기로 보행관련 입법 청원운동과 교통안전 예산 확보를 위한 공청회 개최 등 시민의 안전보행을 위한 각종 시민운동을 다각적으로 펴나갈 방침이어서 우리나라에서도 '사람중심'의 교통환경개선운동인 '녹색교통'운동이 점차 활성화할 전망이다. 이인우 기자

Source: The Hankyoreh, June 19, 1993.

administrative policies, civic organizations engaged in various activities for pedestrian safety in everyday life, such as school zone monitoring, treatment of accident blind spots, and demands for the installation of child safety zones.

The introduction of pedestrian rights to Korea carried at least three significant implications. The campaigns by civic organizations in cooperation with the general public raised public awareness about pedestrian rights, specifically the right to walk as a part of basic human rights. Also, the campaigns presented practical tasks to fulfill in order to achieve people-oriented transport and drawing public resistance to car-dominated urban traffic policy. Lastly, the campaign brought urban transport policy, which had been considered a professional realm, into the realm of everyday life as a part of everyday issues.

The adoption of the pedestrian policy in Korea can be ascribed to civic organizations, which made an aggressive effort to raise questions about the

Figure 3.9 Newspaper article on Seoul's symbolic streets


東亞日報 1995年4月18日 火曜日 【28】

시민 보행권 최대한 보장

수도권

서울市 발표 「국가·서울상징街路」 조성내용

서울 삼각가로 8경

제1경 광화문광장 (국가상징공간서의 품격)

제2경 시청앞광장 (서울상징은공서의 복격)

제3경 영동과 여경공원 (도심은공서의 품격)

제4경 남산과 서울타워 (남산의 자연경관)

제5경 용산공원과 세계전자용품단지 (세계화의 이미지를 지향)

제6경 한강과 상징조형물 (한강의 경관과 시민휴식공간)

제7경 시청·시역의 거리 (공공건물의 지역 구심점)

제8경 예술의 전당과 문화예술의 거리 (문화예술과 시민휴식의 장)

광화문 보행자공간 歷

시청앞 북창洞·무교洞

남대문 남대문路 중앙

서울역 고가路철거 곽

서울상징가로는 都心의

Source: Dong-A Ilbo, April 18, 1995.

car-oriented public administration and acted aggressively to change traffic policies in Korea. Civic movements for pedestrian rights were initially slow but they gradually gained public support and spread nationwide. In this sense, civic movements for pedestrian rights were part of human rights movements.

The movement for pedestrian rights developed in various forms. It called for the creation of child safety zones in front of schools and succeeded in having relevant acts enacted. It also demanded the installation of crosswalks in front of City Hall and other areas in downtown Seoul. Cho Soon, the former mayor elected in 1995, also responded favorably to civic movements for pedestrian rights led by civic movements. The Seoul Development Institute, a Seoul City-affiliated policy research institute founded in 1992, started a series of research for Seoul residents' pedestrian rights and improvement of pedestrian environments went into full swing.

The movement for pedestrian rights was a small-scale campaign at first, but it affected the Korean society as a whole. Pedestrian rights were reflected in policies and public administration starting in 1995. For instance, the major daily newspaper Dong-a Ilbo featured the article, "Plans for Seoul's Symbolic Street, National Central Street" with "Pedestrian Rights Secured as Best as Possible" as the headline.

The term "pedestrian rights" began to be found in the courts' written judgments around this period, showing that the term had gained currency as a social and political issue.

2. Launch of the Urban Action Network and Enactment of a Pedestrian Ordinance

In October 1995, the civic campaign for pedestrian rights took a turning point for further development. The Urban Action Network (formerly known as the Public Transportation Environment Center) introduced the "people-oriented concept" from the perspective that "a city becomes lively by pedestrians and redefined by pedestrians." It regarded walking as part of

an urban social movement that could change an urban structure as a whole, rather than some spots or streets. With this idea as the basis, the Public Transportation Environment Center launched the campaign for the creation of a walkable Seoul.

The campaign was joined by several institutions including the Public Transportation Environment Center, Korean Federation for Environmental Movement, Seoul YMCA, People's Solidarity for Participatory Democracy, Hansalim, Korea Center for City and Environment Research, Korean Federation of Wives' Clubs (present-day Korean Women's Federation for Consumers), and Living Cooperative Federation to announce its three goals, including creation of a pedestrian plaza in front of City Hall, enactment of a Seoul City pedestrian ordinance, and the installation of crosswalks. In order to draw support the participating organizations published newsletters, organized a petition to collect signatures, and created various campaigns and street parades.

In order to bring their goals into reality, civic activities held a workshop for the creation of a walkable Seoul" on May 9, 1996, after various preliminary meetings with urban, transport, and administrative affairs experts, raising public awareness about the importance of enacting a pedestrian ordinance and launching the Solidarity for a Walkable and Sustainable Seoul in an effort to put the goals of changing urban spaces into action.

The launch of the Solidarity for a Walkable and Sustainable Seoul had several important implications. Above all, various civic organizations organized new campaigns to draw public support for the improvement of the pedestrian environment and the promotion of pedestrian rights. As a result, Seoul City enacted a pedestrian ordinance and the Network for Green Transport was established.

After a series of discussions and research with civic activists, the Network for Green Transport finalized five goals for the creation of a walkable Seoul:

First, creation of safe streets for children

Second, creation of street convenient for people with physical disabilities and elderly citizens

Third, creation of convenient streets for commuters using public transportation

Fourth, creation of streets that mesh with nature

Fifth, creation of streets that create culture

The enactment of the Seoul pedestrian ordinance was based on the need for the establishment of a new relationship putting pedestrians before cars for the creation of "livable Seoul, walkable streets."

Issues related to the pedestrian environment were viewed as rather abstract compared to the Seoul City pedestrian ordinance but they could not be solved with the enactment of an ordinance as they were intertwined with

Figure 3.10 Newspaper article about the enactment of a pedestrian ordinance

'보행권'조례 첫 추진

서울시의원·시민단체…시장 책무로 규정

시민이 맘놓고 걸어다닐 권리 확보를 시장의 책무로 규정하는 내용의 보행권 관련 조례가 처음으로 제정될 전망이다.

시민교통환경센터를 비롯한 시민단체들과 김영춘·박경수·이시영 의원 등 서울시의원 10여명은 8일 서울시장이 보행권 관련 기본계획을 세워 시내 교통환경을 보행자 위주로 바꾸기 위한 정책을 집행해야 한다는 내용을 포함한 조례 제정을 추진하기로 했다.

조례안은 또 어린이와 노인, 장애인 등 약자들이 걸어다닐 때 불편을 겪지 않도록 공간을 확보하고, 공사장 주변에 안전보도를 갖추는 것 등을 의무화하고 있다.

이 조례안에 상당수 시의원과 서울시도 긍정적인 태도를 보여 국내에서 처음으로 보행권 보장을 위한 조례가 만들어져 교통정책이 보행자 중심으로 바뀌는 계기가 될 것으로 보인다.

한편 시민교통환경센터와 참여연대를 비롯한 7개 시민단체는 9일 오후 기독교100주년기념관에서 '걷고 싶은 서울 만들기 운동본부' 출범식을 열고 '서울시 보행권 확보 및 보행 환경 개선에 관한 특별조례'를 발표할 예정이다.

시민단체들은 이날 또 '걷고 싶은 서울 만들기' 워크숍을 열어 서울시 보행 환경의 문제점과 개선방안 등에 대한 토론을 벌일 예정이다.

조연현 기자

Source: The Hankyoreh, May 9, 1996.

urban growth or urban life in general. In order not to make this ordinance useful, the Network for Green Transport and other civic organizations aimed to find solutions in the field by setting practical goals, such as the creation of a safe Seoul Nokbun Elementary School zone and organized a campaign for the restoration of crosswalks. They continued to monitor pedestrian-related policies and call for improvement. They believed that the enactment of an ordinance was not the end but the beginning for the improvement of related laws and policies which would require civic movements.

The civic movement for a walkable Seoul created a cooperative model among experts and administrative and local governments. In order to create a people-oriented urban space, each organization held the idea that various civic organizations should cooperate organically with experts in order to utilize their expertise and analytic capacity along with their own experiences and competence in planning. The enactment of a pedestrian ordinance serves as a good example. Civic organizations presented problems and called for solutions and experts in various areas suggested political alternatives in response to the demand, which eventually became policies. Seoul City drew

Figure 3.11 Newspaper interview with GANG Byeong-gi; Hanyang University Professor and Chairman of the Pedestrian Ordinance Enactment Committee

"서울도로 보행자입장 너무 외면"

서울시 문화상 수상
康 炳 基 교수

金惠曄기자

『지금까지 서울이라는 도시 연구에 매달려왔고 서울의 도시기본계획에 주로 참여해 왔는데 이러한 노력을 인정받게 되어 매우 기쁩니다』

제45회 서울시 문화상 수상자 가운데 건설부문 수상자인 康炳基 한양대교수(64·도시공학).

그는 지금까지 △서울시 도시기본구조연구 △2000년대를 향한 서울시 도시기본계획 △역세권 개발전략 입안 △기성시가지 정비방안연구 등을 수립, 상당부분이 정책으로 실현됐다.

시는 『康교수가 서울 주요간선도로변 도시설계나 남산경관관리를 위한 컴퓨터 시뮬레이션 연구 등을 수행해 학문적으로나 실무적으로 이 분야 발전에 크게 기여했다』고 평가했다.

康교수는 현재 비대해진 공룡과도 같은 서울의 가장 큰 문제점으로 『사람을 존중하는 도시가 아니다』는 점을 꼽았다.

『도로를 한 번 보세요. 차만 보이지 어디 사람이 보입니까. 도로에서 보행자의 입장이 되어보면 서울의 도시문제가 극명하게 보입니다』

이 같은 문제해결을 위해 최근에는 「걷고 싶은 서울 만들기 운동본부」 공동의장직을 맡았고 시청앞 광장을 시민에게 개방하자는 제안을 서울시에 하기도 했다.

康교수는 『서울은 사실 옛 것과 새 것, 혁신과 보수, 권력과 서민층이 공존하는 재미있는 도시』라면서 『서울의 이러한 다양성을 도시계획에서도 충분히 살려내야 할 것』이라고 강조했다.

Source: Dong-a Ilbo.

up the Five-Year Basic Plan for Improvement of Pedestrian Environments to provide political support for pedestrian rights.

Civic activists, who had led campaigns for pedestrian rights, young Seoul Metropolitan Council members, researchers with the Seoul Development Institute, and college professors held forums together to seek ways to restore pedestrian rights and upgrade the pedestrian environment. In December 1995, the Ordinance Enactment Committee was organized and consisted of 33 members, including KANG Byeong-gi as Chairman, experts in urban, traffic, and administrative affairs, Seoul Metropolitan Council members, and civic activists. The committee held 11 meetings over ten months in 1996 to draw up a bill of ordinance. The bill, which was proposed by 29 Seoul Metropolitan Council members, was passed unanimously and proclaimed on January 15, 1997. The Seoul City pedestrian ordinance was finally enacted.

3. Campaign for the Creation of a Pedestrian Square in Front of Seoul City Hall

A healthy city is a walkable city based on horizontal mobility. The calls for the installation of crosswalks by the Networks for Green Transport were in fact an outcry for the adherence to the principles of horizontal mobility through crosswalks, not underpasses or overpasses. The Networks for Green Transport organized various campaigns, meetings and petitions for the transformation of the car-only traffic square in front of Seoul City Hall to be turned into a pedestrian plaza.

The demand for the creation of a pedestrian plaza in front of City Hall aimed to create a walkable street that represents Seoul by linking Sungnyemun Gate (Namdaemun) to Gyeongbokgung Palace via Deoksugung Palace and Seoul City Hall. It also demonstrated the implementation of grassroots democracy through the pedestrian plaza as a space that symbolizes a city government that does not reign over the public but instead listens to them. It was also expected that the creation of the pedestrian plaza would

accompany the installation of sidewalks, making City Hall accessible without using the underpass.

The Networks for Green Transport proposed a practical plan for the creation of a pedestrian plaza in front of City Hall, which, in fact, had been discussed since the early 1980s, and delivered a petition to the then Seoul Mayor CHO Soon after picketing in August 1996.

Various events were held one after another, such as a mass demonstration, petitioning, and an urban walking festival. However, the plan for the creation of a pedestrian plaza was not put into action due to a group of traffic experts and the police agency, who bitterly opposed it in fear of a possible traffic jam.

Driven by the millions of soccer fans cheering for the Korean team during the 2002 FIFA World Cup at the plaza, the Networks for Green Transport put the issue in the spotlight again by holding discussions with the public and conducting public surveys. Several NGOs including the Green City Institute, and the Urban Action Network continued to show support and announced

Figure 3.12 Seoul City Hall's car-oriented plaza

Figure 3.13 Seoul City Hall's car-oriented plaza after transformation into a pedestrian plaza

several public statements asking Seoul and the City Council to take more decisive action to meet demands for the creation of a pedestrian plaza in front of City Hall.

Their efforts were successful as the car-oriented square finally was transformed into a pedestrian plaza in May 2004. It is an example that proves the old Korean adage that the creation of a thousand forests is within one acorn.

With Seoul Plaza as the beginning, a pedestrian plaza was formed in front of Sungnyemun Gate and Gwanghwamun which rapidly transformed Seoul into a people-oriented urban space.

Section 4

Public Demand Changes a City and Restores Crosswalks in Gwanghwamun

1. Gwanghwamun, the Heart of Seoul, without Crosswalks

In the mid-1990s, when the pedestrian rights concept began to gain currency in Korea, many areas with intersections in Seoul did not have crosswalks. Gwanghwamun was one of these areas without crosswalks until 1998 when they were restored. The absence of crosswalks in an area as crowded as Gwanghwamun proves that Seoul was previously a completely car-oriented city. While streets were dominated by cars, people had to endure the inconvenience of crossing a street via an underpass or an overpass. There was little care for people with physical disabilities.

Civic activists made diverse efforts for the creation of comfortable and pleasant pedestrian environments for all without tangible results. In particular, there were many intersections without crosswalks in many crowded areas like Gwanghwamun, which posed great inconvenience to all pedestrians including people with physical disabilities. Since the dominance of cars on the road was accepted as natural at that time, civic organizations' persistent demands for improvement did not gain much public support.

Figure 3.14 Underpass for pedestrians at Gwanghwamun

The campaign for the installation of crosswalks is not just a demand for the installation of safe crossing facilities but an expression of the human desire to be entitled to human dignity. In other words, the campaign proclaims that people, not cars, are the owners of the urban space. In this respect, the campaign for crosswalk installation carries highly symbolic meanings.

At that time, Article 9 Clause 5 of the Road Traffic Act stipulated that "Crosswalks shall not be installed within 200 meters from an overpass, underpass, or other crosswalks," a poisonous clause that restricted pedestrian rights. Accordingly, many crosswalks were removed with the opening of subway stations and pedestrians had no choice but to walk up and down stairs.

Even in 1997, when civic organizations advocated pedestrian rights, Seoul City removed 35 crosswalks near 22 subway stations with the opening of Subway Line 5. The Urban Action Network then surveyed the 49 stations of Subway Line 5 for a month in July and organized a campaign for the restoration of the crosswalks removed. As a result, some crosswalks were restored and civic organizations continued to conduct a campaign for crosswalk restorations in residential areas as well. The campaign for the installation of crosswalks at arterial streets in Seoul was initiated by the Networks for Green Transport.

2. A Signature Campaign that Broke Barriers

Having realized the limited effect of addressing issues through the media, the Networks for Green Transport decided to garner public support for the restoration of crosswalks on intersections in downtown Seoul and planned a street rally.

Networks for Green Transport prepared a petition that demanded the installation of crosswalks in ten areas, including Gwanghwamun and Sinchon Rotary where crosswalk installation was thought to be imperative. The signature campaign was successful and drew much attention in part due to

Figure 3.15 Newspaper article covering the campaign to restore crosswalks in Gwanghwamun

"횡단보도를 되돌려 다오"

「잃어버린 횡단보도를 되돌려달라」 녹색교통운동 등 6개 시민단체는 보행자및 장애인 노약자 임산부 등 교통약자들이 서울시내 간선도로를 건너면서 지하도나 육교를 이용할수 밖에 없는 불편을 덜수 있도록 횡단보도를 다시 설치해줄 것을 요구하는 운동에 나섰다.

장애인·노약자, 지하도·육교이용 불편
'광화문사거리·시청앞등 10곳 우선설치'
시민단체 6곳 서울경찰청·市에 요구서

이들 단체는 지하도나 육교만 있는 곳과 횡단보도를 설치해도 교통 흐름에 영향이 없거나 덥한 광화문사거리, 시청앞 등 10개 지점에 대해 우선적으로 설치해달라는 요구서를 서울경찰청과 서울시에 냈다고 15일 밝혔다. 이들이 선정한 대표적인 「횡단 사각지대」중 하나가 신촌 로터리 홍익문고 앞 왕복 4차로로, 폭이 12m인 이 도로를 횡단하는데 성인의 걸음으로 15초 걸리지만 횡단보도가 없어 맞은편 현대백화점 쪽으로 가기 위해선 지하철 2호선 신촌역을 통할 수 밖에 없다.

이날 녹색 교통운동과 본사 취재진의 직접 확인결과 통제어 리프트도 없이 110여개 계단으로 이어진 지하보도를 통과하는데 걸린 시간은 1분 10초. 노약자나 임산부에게는 더많은 시간이 소요되는 「험난한 길」임은 물론이다.

2급장애인 김형수씨(23·연세대국문과4)는 「지하철역에 리프트가 없어 이곳에서 150m 떨어진 횡단보도를 이용할수 밖에 없는데 20초면 충분히 건너는 길을 10여분간 걸어 돌아가야 한다」면서 「사실상 다니지 말라는 얘기」라고 말했다.

불광동 국립환경연구원 사거리, 안국동 사거리, 송파대로와 가락로 교차점 등 20여곳의 사정도 마찬가지다. 특히 광화문사거리는 지하도 밖에 길을 건널 방법이 없어 지체장애인들에게는 정부청사, 세종문화회관, 교보문고 등에의 접근이 전혀 불가능하다.

서울시립대 도시공학과 김기호 교수(46)는 「횡단보도 설치로 차량 출발이 10여초 늦어질수 있지만 정체가 다반사인 상황에서는 의미가 없다」면서 「보행자의 권익을 무시하는 반인간적 교통문화는 바뀌어야한다」고 주장했다. 정기수·최재영기자

횡단보도 우선설치 요구 지점

Source: Kyunghyang Shinmun, September 16, 1998.

the location near Hongik Bookstore in Sinchon Rotary; it was absurd to cross a 10 meter street via an over 100 meter-long underpass.

In September 1998, the Networks for Green Transport started picketing with small signs which read "Please install a crosswalk here" and collected signatures. Over 2,000 people signed the petition in a few hours and the Networks for Green Transport submitted it to the National Police Agency and Seoul City under the name of six NGOs. The campaign garnered much attention from the public and the media.

MOON Chang-jae, an editorial writer for the daily newspaper Hankook Ilbo, covered the campaign in his column Jipyeongseon on September 21, 1998. "There is no other nation but Korea that drives its people underground in order to make the road better for cars. I don't even hope for a walkable street. I want to live in a city where I can walk and be comfortable walking."

About three months later, on December 23, 1998, Seoul announced that it decided that it would be possible to install crosswalks in six out of the ten spots the Networks for Green Transport designated and it would complete it by the first half of 1999.

The installation of a crosswalk in Gwanghwamun changed the deeply rooted conception that artillery streets are for cars only and introduced a new concept that people have priority in all streets. Driven by the installation of a crosswalk in Gwanghwamun, Seoul began to install crosswalks on all arterial streets.

Figure 3.16 Gwanghwamun with restored crosswalks

At first, the restoration of a crosswalk in Gwanghwamun seemed like an impregnable barrier. However, this is the power of the people that can break barriers. This is the power the public has over their city.

Figure 3.17 Proclamation by the Networks for Green Transport to declare the crosswalk was installed by public demand

The restoration of crosswalks in Seoul was achieved by thousands of residents applying their signatures to petitions. On April 15, 1999, right after the crosswalk restoration, the Networks for Green Transport erected a sign that read, "This is a crosswalk created by public demand."

3. The Ideas and Power of Residents Transformed a City

When a crosswalk in Gwanghwamun was restored, some media and experts criticized it because they argued that the crosswalk caused heavier traffic jams. In response to the criticism, civic organizations insisted that people and cars should be in harmony even if driving would become a bit more inconvenient.

The crosswalk in Gwanghwamun changed the image of the city and life in it, as well as traffic in the area where pedestrians had to use the inconvenient underpasses. The number of pedestrians increased sharply and patterns of shopping, dining, and overall business changed. Now more and more people enjoyed urban life thanks to the crosswalk that allowed them to move more conveniently and freely. The crosswalk serves as an excellent example that shows how traffic can change human life. The public responded positively, saying that a crosswalk is quite naturally more convenient than an underpass or an overpass when crossing a street. Shops nearby also welcomed the

crosswalk as it made shops on street-level more accessible than before and consequently contributed to sales growth. In retrospect, the restoration of the crosswalk in Gwanghwamun signaled the transformation of Seoul into a people-oriented, walkable city. It also marked the beginning of the promotion of pedestrian rights.

Figure 3.18 Plan for the creation of a pedestrian belt between Gwanghwamun and Seoul Station

In 2005, Seoul installed the crosswalk that ran along the east-west axis in Gwanghwamun and created Sungnyemun Plaza to make a pedestrian belt that stretched from Gwanghwamun to Seoul Station via City Hall and Sungnyemun Gate. Also, Seoul City made the sidewalk more pleasant than before with the growing number of pedestrians in mind. In addition, it reduced the number of lanes on Taepyeong Road which linked Gwanghwamun Building to the Koreana Hotel and Seoul City Council while increasing the sidewalks. Especially, it widened and refurbished the sidewalks of Mugyodong Street and Jongnogucheong Street which are linked to Cheonggyecheon Stream. The pedestrian trail bordering Cheonggyecheon Stream completed in October 2005

allowing residents to enjoy more eco-friendly environments than ever before.

In addition four crosswalks were opened in Sungnyemun Plaza to make it more easily accessible. The sidewalk was also widened by four to five meters at the 260-meter section of Namdaemun Road, which was a major road across central Seoul but was not pedestrian-friendly. With completion of the pedestrian belt project, the pedestrian environment in the central Gangbuk area (area of Seoul north of the Han River) improved drastically and residents could enjoy walking from Gwanghwamun to Seoul Station and Namsan via Seoul Plaza without having to use underpasses.

After the crosswalk in Gwanghwamun was restored Seoul continued to create many more crosswalks, which prompted other cities to follow suit leading to the restoration of many crosswalks that were removed in 2005. Daegu City, for instance, restored the crosswalk in Banwoldang after public protest. Many cities replaced overpasses with crosswalks and revised their urban policies to improve pedestrian environments.

4. Campaigns for Pedestrian Rights across the Nation

The campaign for pedestrian rights started in Seoul but soon spread to many provincial cities. Uiwang City in Gyeonggi Province was the first provincial city to complete a basic plan for a survey of the pedestrian environment and its improvement in July 1997. In response to the demands by civic organizations, Uiwang City created the Pedestrian Road Bureau and Seoul created the Green Seoul Bureau to transform their administrative systems.

In addition, NGOs in many cities led various discussions and rallies in relation to pedestrian rights. For instance, the Jeju Coalition for Economic Justice held a walking festival to provide the public with experience of the pedestrian environment and gave lectures in October 1996 to raise public awareness of issues related pedestrian rights in local communities and conducted various campaigns for pedestrian rights in partnership with local media.

With these activities as the basis, 43 NGOs in transportation, environment, and consumer bodies across the nation formed the National Network for the Restoration of Pedestrian Rights on April 16, 1999. The group was formed in order to create sustainable cities through the improvement of the pedestrian environment and promotion of pedestrian rights as a basic human right. Led by the Networks for Green Transport, the network, if not a powerful unified organization, was joined by many civic organizations and environmental organizations interested in pedestrian rights and contributed to spreading pedestrian rights-related issues to various cities and regions.

NGOs that participated in the network include the Networks for Green Transport, Korean Federation for Environmental Movement in Gwangju (Gwangju Public Meeting for Promoting the Use of Bicycles), Daegu Young Korean Academy, Solidarity for Participation and Self-Governance of Daejeon, Chungcheong Headquarters of the Networks for Green Transport, Korean Federation for Environmental Movement in Mokpo, Miryang YMCA, Public Solidarity for Participation and Self-Governance of Busan, Research Institute of the Differently Abled Person's Right in Korea, Suwon Center for Environmental Movement, Jeonju Green Public Transportation Solidarity, Jinju YMCA, Headquarters for the Creation of Walkable Cheonan, Cheongju Ecological Education Research Center "Teo," Chuncheon YMCA, and Pohang Citizen's Coalition for Economic Justice. These organizations have made various efforts to enact pedestrian-related laws and restore pedestrian rights.

The National Network for the Restoration of Pedestrian Rights conducted various campaigns across the nation, engaging in various activities, including consistent monitoring of traffic policies and administration of local governments, movements for enacting laws that assist pedestrians, surveys and research for the creation of walkable streets, monitoring of public participation, civic campaigns, and education among others. Driven by this, civic movements worked throughout the nation. Various NGOs' interest in Seoul's pedestrian ordinance spread nationwide and cities such as Jeju, Busan,

Gwangju, Gwacheon, Bucheon, and Cheonan enacted ordinances. However, pedestrian ordinances in cities other than Seoul were not incorporated with practical policies.

The ordinances should be the results of what the public agreed upon and contain a new system that should be agreed upon. Accordingly, the ordinances should be enacted in corporation with various social agendas. However, the ordinances were enacted independently without any relationship with the formulation of administrative policies, which often made the ordinances ineffective. Nevertheless, the National Network for the Restoration of Pedestrian Rights carried out various activities for the improvement of the pedestrian environment with the public and raised public awareness of pedestrian rights in partnership with various organizations locally and nationwide. Walking is more than simply a means of transportation and there needs consideration of things such as the environment, shopping patterns, and who the primary users will be in each area. The campaigns for pedestrian rights were incorporated with civic movements in various other areas to change the system of values in society.

The Car-Free Day campaign is also noteworthy. It started in La Rochelle, France in 1997 for the reduction of traffic volume and environmental improvement. Starting with the slogan "no cars in urban centers" this international civic movement is now held in some 2,100 cities in over 40 nations around the world.

In 2001, various environmental civic organizations in Korea including Networks for Green Transport, Korean Federation for Environmental Movement, Green Korea United, and Environmental Justice decided to hold a Car-Free Day event in Seoul on September 22 by organizing the Car-Free Day Private Organizing Committee. The Car-Free Day was by civic organizations until 2005. In 2007 it expanded into a joint private-public event with Seoul City's decision to join. Since then the event has been known as the Seoul Car-Free Day and is held annually.

On the Seoul Car Free Day in 2008, Seoul was divided into three zones and encouraged residents not to drive in the city to respect the car-free zone

within the four main gates in downtown Seoul. Cars were banned from entering Jongno (2.8 km from Sejong Road Intersection to Dongdaemun) and Cheonggyecheon Road (1.3 km from Cheonggye Plaza to Cheonggye 3-ga) for a whole day. Seoul also provided active support in order to urge public participation and the vitalization of public transportation by allowing everyone to use buses and the subway for free until 9 a.m. and closing the parking lots of all public institutions affiliated with the city and other local governments. The Car-Free Day has been held nationwide since 2009.

Section 5

Improvement of the Pedestrian Environment and Significance of Civic Movements

It is no exaggeration that the improvement of the pedestrian environment was initiated and expanded through civic movements. It was civil organizations that presented "pedestrian accessibility, convenience, and safety" as alternatives to issues related to traffic jams when administrators and experts focused only on cars and demanded administrators shift their emphasis from car-oriented polices to people-oriented urban polices. There are several reasons why the civic movement is important in improving the pedestrian environment.

Above all, civic organizations listened to what the public had to say. They listened to parents with children as victims of traffic accidents in school zones and their calls for the installation of the minimum safety features while also investigating the accident scenes to come up with improvement measures in cooperation with residents.

This process of solving problems could lead to political alternatives based on everyday life. Also, civic organizations could draw young researchers' interest and cooperation. In response to civic organizations' activity to raise questions and come up with alternatives to improve pedestrian rights, young researchers began to actively introduce the pedestrian policies of

other nations and contributed to the development of political alternatives. It was young experts' interest and cooperation that put civic organizations' campaign for pedestrian rights, which could have been dismissed as personal matters, in the spotlight. Civic movements also usher in changes in policy. It was never easy to change the public administration with focus on car-oriented policies based on car priority laws and systems without social consensus, persistent demand for administrative changes, and revision and enactment of relevant laws. In this respect, civic organizations' consistent monitoring of nationwide campaigns for pedestrian rights and administrative policies after the enactment of the pedestrian ordinance emphasized the importance of the pedestrian policies and succeeded in urging the central government to enact pedestrian-related laws.

The movement for the improvement of the pedestrian environment in Korea has resulted in a paradigm shift from top-down government led by public administration to a vertical governance paradigm which is a cooperative system among various institutions with the public at the center.

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Chapter 04

Enactment of the Pedestrian Ordinance and Twenty-Year History of Walkable Seoul

JEONG Seok
Professor, Dept. of Urban Planning and Design,
The University of Seoul

Section 1

Overview of the Pedestrian Ordinance Enactment

In early 1996, the movement for pedestrian rights reached a turning point. A group of activists, young Seoul Metropolitan Council members, and researchers from Seoul Development Institute and relevant universities, held forums to seek innovative ways to restore pedestrian rights and continue to improve the pedestrian environment. After many heated discussions over the course of a year, they finally agreed to push for the enactment of the Seoul Pedestrian Ordinance.

In early 1996, the Forum for Creating Walkable Seoul was formed and the first forum was held at the Seoul Development Institute on February 27, 1996. At the forum, participants examined the pedestrian environment in Seoul in order to find problems and solutions and discussed the necessity of enacting a pedestrian ordinance and the goals of civic movements. The event drew much attention from the press and hit the headlines in morning newspapers.

After the forum, the Pedestrian Ordinance Enactment Committee (KANG Byeong-gi as Chairman) was formed to prepare the full-scale enactment of the ordinance. On May 9, 1996 the Workshop for Creating Walkable Seoul was held on May 9, 1996. It was designed to spread the campaign of making

Seoul walkable and finalize the framework of the pedestrian ordinance prepared by the Pedestrian Ordinance Enactment Committee. The workshop was concluded with a launch celebration of the Headquarters for Creating Walkable Seoul, which announced the establishment of a new organization for the improvement of pedestrian rights and enactment of the pedestrian ordinance.

Preparation for the pedestrian ordinance lasted for an entire year. At stake was whether it should be an ordinance, a declaration, or a chapter. Some argued that the Mayor of Seoul should declare pedestrian rights, but there was a consensus that Seoul City should enact a pedestrian ordinance equivalent to Seoul City Act.

1996 was when the local autonomy system was restored, the domestic autonomy system was rather insecure, and local governments had constraints on enacting ordinances themselves. They had no problem enacting an ordinance under powers delegated by enacted Acts, but they were not able to enact their own ordinances without restriction. However, the committee concluded that the enactment of pedestrian ordinances should not be included in the restrictions as it stipulated the Mayor's duties to respect pedestrian rights and improve the pedestrian environment. At that time, the enactment of a pedestrian ordinance was unprecedented not only in Korea but in other nations except the European Charter of Pedestrian Rights. The pedestrian ordinance, which consists of ten clauses, was revised and complemented through the internal forums and open workshops held by the Pedestrian Ordinance Enactment Committee.

Figure 4.1 Workshop for Creating Walkable Seoul

Note: May 9, 1996.

On October 22, 1996, the Pedestrian Ordinance Enactment Committee

held a press conference at the Seoul Metropolitan Council on October 22, 1996 and Seoul Council Members proposed enactment of the ordinance. The ordinance was passed unanimously at the plenary session of the Seoul Metropolitan Council held in December and promulgated on January 15, 1997 (Ordinance 3,376) officially taking effect at the same time. The ordinance is often abbreviated as the Seoul Pedestrian Ordinance but its official name is the Seoul Metropolitan Government Framework Ordinance on Securing of Pedestrians' Rights and the Improvement of the Pedestrian Environment.

Section 2

Overview of the Pedestrian Ordinance

Enacted in January 1997, the Seoul Pedestrian Ordinance was revised in November 2009 and again in March 2013. Initially the ordinance consisted of nine clauses. It clearly stipulates the responsibilities of Seoul's Mayor and residents to respect residents' right to walk and create a pleasant pedestrian environment.

1. Purposes and Definition of the Pedestrian Ordinance

Article 1 (purpose) describes the reasons for enactment of the Pedestrian Ordinance. It states the purpose of the ordinance is to create a pleasant pedestrian environment and secure residents' pedestrian rights by stipulating the basic matters concerning the duties of Seoul, each district, and residents for the improvement of the pedestrian environment.

Article 2 (definition) defines major terms used; "pedestrians' rights (pedestrians' rights to walk safely and comfortably)," "pedestrian environment (the entire environment that affects pedestrian traffic and activities, including physical, perceptual, and mental aspects and systems

related thereto), and "pedestrians with mobility difficulties, including children, elderly, people with physical disabilities, and pregnant women)." However, the third term was deleted in the 2009 revision and only the first two still remain.

2. Duties of Each Subject

Article 3 (fundamental duties) and Article 4 (public's rights and duties) stipulate the basic duties of the Mayor and the rights and duties of residents. Seoul's Mayor is responsible for securing pedestrians' rights, maintenance and management of facilities for the pedestrian environment, improvement of the pedestrian environment, and public participation and cooperation in the improvement of the pedestrian environment. Everyone has the right to use safe and comfortable pedestrian environments, the right to be informed of the establishment and implementation of policies securing pedestrians' rights as well as improvement of the pedestrian environment, and duties to participate and cooperate actively in projects for the improvement of the pedestrian environment.

3. Basic Plans for Improving the Pedestrian Environment

Article 5 contains Seoul's basic plans for the improvement of the pedestrian environment, which are as follows:

The Mayor shall establish basic plans for the improvement of the pedestrian environment every five years and an annual implementation plan every year. The basic plans should include goals for improvement of the pedestrian environment and the direction of policies thereon, changes and prospects for conditions of the pedestrian environment, project plans for each area and each phase in order to accomplish the goals of the improvement of the pedestrian environment, the calculation of costs and expenses incurred in the implementation of projects and a plan for raising funds therefore, and

other matters necessary for the improvement of the pedestrian environment.

The title of the basic plans for the pedestrian environment was revised to the Basic Plans for the Pedestrian Environment when the ordinance was revised in 2009. This new title is currently in use.

4. Establishment of Guidelines for the Pedestrian Environment

Article 6 contains guidelines for creation of the pedestrian environment. The ordinance did not include further details until it was revised in 2009. The guidelines for the development of the pedestrian environment include the improvement of the pedestrian environment around main roads, school zones, side roads, areas with heavy pedestrian traffic such as roads with high concentrations of tourists or shops, maintenance of sidewalks, installation and maintenance of crosswalks, improvement of the pedestrian environment in connection with public transportation, creation of vehicle-free streets, improvement of wide intersections, and development of a smoke-free environment on sidewalks.

5. Financial Support and Other

Article 7 deals with financial support, which includes the mayor's duty to take measures for raising funds required for the implementation of policies on the improvement of the pedestrian environment and subsidize, within budget, some of the costs and expenses incurred in each autonomous district's (written as 'gu' in the Korean language) projects for the improvement of the pedestrian environment.

Article 8 states that Seoul's Mayor may delegate part of his/her authority under the provisions of this Ordinance to the head of each district.

Article 9 focuses on enforcement rules and stipulates that matters

necessary for the enforcement of this Ordinance shall be prescribed.

Full text of the Seoul Pedestrian Ordinance (2013)

Seoul Metropolitan Government Framework Ordinance on Securing of Pedestrians' Rights and the Improvement of Pedestrian Environment [Took effect on March 28, 2013] [Seoul City Ordinance, No. 5459, partially revised on March 28, 2013]

Article 1 (Purpose) The purpose of this Ordinance is to develop a safe and comfortable environment for pedestrians and secure pedestrians' rights for citizens of the Seoul Metropolitan City (hereinafter referred to as "citizens") by providing basic matters concerning the securing of pedestrians' rights for citizens and by implementing policies of the Seoul Special Metropolitan City (hereinafter referred to as the "City") on the pedestrian environment comprehensively as planned.

Article 2 (Definitions) Terms used in this Ordinance shall be defined as follows:

1. "Pedestrians' rights" means pedestrians" right to walk safely and comfortably;
2. "Pedestrian environment" means the entire environment that affects pedestrian traffic and activities, including physical, perceptual, and mental aspects and systems related thereto.
3. Deleted. <Nov. 11, 2009>

Article 3 (Fundamental Duties) (1) The Mayor of the Seoul Metropolitan Government (hereinafter referred to as "Mayor") shall perform fundamental duties regarding the following matters in order to create a city in which all pedestrians are safe and able to walk comfortably: <Amended by Ordinance No. 4885, Nov. 11, 2009>

1. Securing of pedestrians' rights;
2. Maintenance and management of facilities for the pedestrian environment;
3. Improvement of the pedestrian environment;
4. Citizens' participation and cooperation in the improvement of the pedestrian environment;
5. Other matters necessary for the securing of pedestrians' rights, maintenance and management of facilities for the pedestrian environment, and improvement of the pedestrian environment.

(2) The Mayor shall endeavor to render full assistance in each autonomous district's efforts to establish policies on the improvement of the pedestrian environment and improvement projects.

Article 4 (Citizens' Rights and Duties) (1) Every citizen has a right to live in a safe and comfortable pedestrian environment.

(2) Every citizen has a right to be informed of the establishment and implementation of policies on securing of pedestrians' rights and the improvement of the pedestrian environment.

(3) Every citizen owes a duty to participate and cooperate actively in projects for the improvement of the pedestrian environment.

Article 5 (Establishment of a Basic Plan for Improvement of Pedestrian Environment) (1) The Mayor shall establish a basic plan for the improvement of the pedestrian environment every five years and an annual implementation plan every year. <Amended by Ordinance No. 4885, Nov. 11, 2009>

(2) The basic plan for the pedestrian environment shall include the following matters:

1. The goals of the improvement of the pedestrian environment and the direction of policies thereon;
2. Changes of and prospects for conditions of the pedestrian environment;
3. Project plans for each area and each phase in order to accomplish the goals of the improvement of the pedestrian environment;
4. The calculation of costs and expenses incurred in the implementation of projects and a plan for raising funds therefore;
5. Other matters necessary for the improvement of the pedestrian environment.

(3) When the Mayor intends to establish a basic plan for the pedestrian environment or revise the plan with regard to an important matter, he/she shall collect and reflect citizens' opinions thoroughly therein.

(4) When a major plan related to the pedestrian environment, such as an urban plan, is established or revised, the Mayor shall ensure to have the basic plan for the pedestrian environment reflected therein.

Article 6 (Establishment of Guidelines for Development) (1) The Mayor shall prescribe guidelines for the development of the pedestrian environment, which shall be complied with in the course of the improvement of the pedestrian environment, and establish related plans so as to apply them to the operation, management, etc. of traffic facilities. <Amended by Ordinance No. 4885, Nov. 11, 2009>

(2) When the Mayor intends to prescribe guidelines for the development of the pedestrian environment pursuant to paragraph (1), he/she shall examine the following matters and reflect them in the guidelines: <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>

1. Matters concerning the improvement of the pedestrian environment around main roads; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
2. Matters concerning the improvement of school routes; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
3. Matters concerning the improvement of side roads; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
4. Matters concerning the improvement of the pedestrian environment in areas with heavy pedestrian traffic, such as roads with high concentrations of tourists or shops; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
5. Matters concerning the maintenance of sidewalks; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
6. Matters concerning the installation and maintenance of crosswalks; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
7. Matters concerning the improvement of the pedestrian environment in connection with public transportation; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
8. Matters concerning the creation of vehicle-free streets; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
9. Matters concerning the improvement of wide intersections; <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>
10. Other matters concerning the improvement of the pedestrian environment. <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>

(3) Further specific guidelines for the development of the pedestrian environment, in which the matters under subparagraphs of paragraph (2) shall be reflected, shall be prescribed by Rule. <Newly Inserted by Ordinance No. 4885, Nov. 11, 2009>

Article 7 (Financial Support, etc.) (1) The Mayor shall take measures for raising funds required for the implementation of policies on the improvement of the pedestrian environment.

(2) The Mayor may subsidize, within budget, some costs and expenses incurred in each autonomous district's projects for the improvement of the pedestrian environment.

Article 8 (Delegation of Authority) Mayor may delegate part of his/her authority under the provisions of this Ordinance to the head of each district.

Article 9 (Enforcement Rules) Matters necessary for the enforcement of this Ordinance shall be prescribed by Rule.

ADDENDUM <Ordinance No. 4885, Nov. 11, 2009>

This Ordinance shall enter into force on the date of its promulgation.

Section 3

Impact of the Pedestrian Ordinance

The Seoul Pedestrian Ordinance is Korea's first local ordinance that announced the city's determination to secure pedestrian rights and improve the pedestrian environment. It is especially noteworthy that the ordinance has brought major changes to Seoul's administration. The Pedestrian Ordinance aimed to force Seoul to draw up a practical plan (Basic Plans for the Pedestrian Environment) for securing pedestrians' rights and improving the pedestrian environment every year and put the plan into action. Since the enactment of the Ordinance in early 1997, the Seoul Development Institute completed the Basic Plans for the Pedestrian Environment in 1998 for Seoul. GOH Kun, who was elected Mayor in 1998, pushed the Project for Creating Walkable Seoul for four years in accordance with the plan. In 2005, the Second Plan for the Pedestrian Environment was completed. Since then Seoul has continued to make every effort to improve the pedestrian environment in Seoul.

The Seoul Pedestrian Ordinance affected not only Seoul's administration but other local governments, prompting them to enact pedestrian ordinances of their own. For instance, Jeju enacted a pedestrian ordinance in 1999, followed by Busan and Gwangju in 2000, and Suwon and Mokpo in 2001.

In addition, many other cities, including Gwacheon, Bucheon, Jinju, and Daejeon, enacted pedestrian ordinances.

Seoul's pedestrian ordinance also played a critical role in the enactment of pedestrian-related acts at the government level. In January 2005, Korea enacted the Act on Promotion of the Transportation Convenience of Mobility Disadvantaged Persons and made an effort to enact a pedestrian-related act at the government level. A pedestrian-related basic bill was proposed to the National Assembly in 2007 and 2009 but failed to make the legislative deadlines. The Pedestrian Safety and Convenience Enhancement Act was promulgated in February 2012 and went into effect six months later. All these actions were driven by Seoul and its Pedestrian Ordinance.

Section 4

The 20-Year History of Creating Walkable Seoul

When the Seoul Pedestrian Ordinance was enacted in January 1997, the Mayor of Seoul was CHO Soon. After CHO, GOH Kun took office and it was during his administration that Seoul City's first Basic Plans for the Pedestrian Environment were established. Campaigns for pedestrians' rights led by civic organizations were launched over two decades ago in 1993 leading to significant changes in the present including many in Seoul. The following is a brief history of the 20-year Walkable Seoul Project, starting with the establishment of the Basic Plans for the Pedestrian Environment.

1. Establishment of Basic Plans for the Pedestrian Environment

Seoul started drawing up its first Basic Plans for the Pedestrian Environment after the enactment of the Pedestrian Ordinance. The Seoul Development Institute was chosen to undertake the task for ten months from October 1997 to July 1998.

Figure 4.2 Cover of Seoul's Basic Plans for the Pedestrian Environment

The Basic Plans for the Pedestrian Environment consists largely of three parts. The first part surveys the pedestrian environment in Seoul while the second part presents ten tasks to be fulfilled for the improvement of the pedestrian environment. The last part focuses on the establishment of Seoul's administrative organization in charge of pedestrian environment affairs, the structure of residents' participatory organizations, and practical strategies such as PR and education.

The survey of the pedestrian environment includes the statistical date of sidewalks, crosswalks, traffic accidents involving pedestrians, and subway facilities for pedestrian convenience, along with various facilities, parking, street vendors, and obstacles on sidewalks of major roads such as artillery roads, local distribution roads, side streets, and school zones in a road hierarchy in 25 local districts in order to investigate and analyze the pedestrian environment in depth and produce useable data. A survey was also conducted among 1,000 residents on their average walking distance and time, satisfaction with the pedestrian environment, and priorities for pedestrian environment improvement.

In order to present practical tasks to be fulfilled for improvement of the pedestrian environment, the research team established a few principles to set priorities. The first was sidewalk restoration, crosswalk expansion, and improvement of the pedestrian environment of residential streets. The second was improvement of the pedestrian environment directly related to public transportation, such as bus stops and subway stations. The third was the expansion of pleasant pedestrian spaces in areas where plans could be

readily applicable with efficiency. The fourth was gradual expansion of spaces without hindrances for people with physical disabilities. The ten projects for the improvement of the pedestrian environment were based on these four principles.

Table 4.1 Ten projects for improving the pedestrian environment

Improvement of the basic pedestrian environment	1) Restoration and expansion of crosswalks at intersections 2) Refurbishment of sidewalk facilities and prohibited vehicle parking on sidewalks 3) Improvement of the pedestrian environment in neighborhoods
Improvement of the pedestrian environment related to public transportation	4) Expansion of pedestrian convenience facilities in subway stations (e.g., elevators and escalators) 5) Expansion of convenience facilities for transfers between bus stops and subway stations
Expansion of pleasant pedestrian spaces	6) Car-free streets/zones 7) Pedestrian-friendly road structure improvement 8) Improvement of intersections/traffic square geometric structures: creation of pedestrian plazas in front of Seoul City Hall and other locations
Improvement of pedestrian conditions for people with physical disabilities	9) Designation and refurbishment of obstacle-free stations/buildings on a trial basis 10) Designation and refurbishment of obstacle-free streets/parks on a trial basis

The plan included a detailed description of each project and the total estimated expenses for annual projects to be carried out for over a five year period and yearly investment plans. The total expenses for the projects were KRW 310 billion for five years and in preparation for a sharp decrease in Seoul's revenue due to the financial crisis at that time, a scaled–down plan for the projects was also drawn up.

The ten projects included in the Basic Plans for the Pedestrian Environment have been put into action one after another. However, some important tasks have not been fulfilled yet, such as the launch of an administrative organization in charge of handling issues related to pedestrian environment improvement.

The basic plans were completed and GOH Kun was sworn in as Mayor of Seoul in 1998. The same year was also marked by Korea's financial crisis. Many organizations were reduced and businesses were restructured. Under these circumstances it was not easy to create the Planning Team for Creating Walkable Seoul under the supervision of the Deputy Mayor of Seoul. As a

result the Facilities Division of the Urban Planning Bureau was chosen to take responsibility for supervising general affairs and relevant departments would be responsible for individual projects.

2. The Creation of Walkable Seoul from 1998 to 2002

On July 1, 1998, GOH Kun was sworn in as Mayor of Seoul. During his term the Creating Walkable Seoul project was given priority as an important policy and actively implemented during his entire period in the office. When he was a mayoral candidate he made a pledge to push the project with all his heart and soul if he were to be elected, saying:

"Dear Residents of Seoul, I love Seoul. I have three dreams about the city. First, I dream of a walkable Seoul, a humane city with a couple holding their child's hands and taking a walk along the road, enjoying the fragrance of lilacs and knowing this is what our founding leaders of our country envisioned. I will turn Seoul, a smoke-choked concrete jungle owned by cars into a people-centered green city."

As he promised, on becoming the 31st Mayor of Seoul, GOH Kun took various measures to fulfill his pledge. On July 9, 1998 he ordered the drafting of the General Plan for Creating Walkable City on July 9, 1998 and finalized it on September 26, 1998. The Facilities Division of the Urban Planning Bureau was chosen to take charge of creating walkable streets in Seoul and local districts on a trial basis with various relevant departments supervising projects. Many divisions in charge of culture (history and culture trails), landscaping (green streets), traffic operation improvement (crosswalks, car-free streets), road management (sidewalk maintenance), architecture guidance (scenic streets), subway construction (pedestrian convenience facilities in subway stations), collaborated to launch various projects for Creating Walkable Seoul. Most of the projects were also found in the ten basic plans.

At that time, Seoul aimed to focus on improving the pedestrian environment rather than engaging in various projects at the same time. Seoul

believed that a drastic improvement of the pedestrian environment of some streets on a trial basis would be more effective than the improvement of the basic pedestrian environment in various areas.

Among various projects undertaken during the term of Mayor GOH Kun, the projects for creating walkable streets and scenic streets were the most complicated and provoked controversy. The city and local districts chose a total of 25 streets, including one in each district and Jongno chosen by Seoul. All the projects were scheduled to be undertaken at the same time. However, the Jongno project faced various problems and was about to be scrapped. The Jongno project, which was chosen through a design contest, contained various innovative ideas for that period. Above all, it placed emphasis on the expansion of pedestrian and green spaces by narrowing the road, which sparked strong opposition by many people. Many experts who stressed their support for car-oriented traffic flow expressed their opposition and even civil organizations resisted the plan. Even the Seoul YMCA, which was headquartered in Jongno District, showed their concern about the plan, fearing that wide sidewalks would only attract street vendors even more. Finally, Seoul City gave up turning Jongno into a walkable street. Donhwamun Road was chosen as a replacement, which was already designate by Jung District, for the walkable street pilot project.

The project for the creation of scenic streets promoted by the Architecture Guidance Division faced similar problems. Seoul, being a city with many mountains, has many roads that offer beautiful scenery of mountains and the project was designed to highlight this unique trait. Seoul chose several candidates and finally designated Sejong Road for the project.

Similar to the Jongno Project, the Sejong Road Project aimed to create a pedestrian space in the middle of the road around the gingko trees so that residents can enjoy the view of Mt. Baekaksan and Mt. Bukhansan from Sejong Road. Having completed the concept design, a detailed design was started in October 2000. When Seoul unveiled its Sejong Road plan, experts and the press raised questions about possible traffic jams in the area. In January 2001 the Seoul Metropolitan Police Agency notified its decision not

to allow Seoul to install a crosswalk nor narrow the road, which led Seoul to decide to postpone the scenic street project indefinitely in April 2001.

From 1998 to 2002 the Walkable Seoul Project accomplished many tangible achievements. Insadong Street, Gwancheoldong Street, and Myeongdong Street became car-free streets in 1997, but the number of car-free streets in Seoul increased a great deal during that period.

Several streets, including Jeongdong Street, Insadong Street, Gogung Street, Myeongdong Street, and Daehang Road were turned into pedestrian streets and referred to as "history and culture trails." The successful and prompt completion of the project history and culture trails was attributable in part to the 2002 FIFA World Cup.

Many roads that had been dug up for subway construction (Lines 5-8) were restored with the pedestrian environment under consideration. It was also around this time that many crosswalks that had been removed with the opening of subway stations were re-installed. Among the four crosswalks installed in the Sejong Road intersection, the two north-south crosswalks were installed in 1999. Two crosswalks were installed at the three-way intersection in front of the Seoul Arts Center in 2000 in addition to the existing underpass.

Figure 4.3 Crosswalk restored at the Sejong intersection in Gwanghwamun, Seoul (1999)

One of the most notable and tangible results of the Creating Walkable Seoul Project can be seen in subway stations. In the past, passengers, especially those with children in strollers, had to go up and down stairs holding their baby in one hand and their stroller in the other. It was not uncommon to see people assisting

Figure 4.4 Underpass in front of Seoul Arts Center (left) and after installation of a crosswalk (right)

Source: JoongAng Ilbo.

someone in a wheelchair on staircases by lifting their wheelchair. Currently most subway stations are equipped with elevators or escalators. Also several transfer stations with long passageways to other lines, such as Jongno 3-ga and Express Bus Terminal, now have are long moving walkways installed.

3. The Pedestrianization of Downtown Seoul and the Improvement of Public Transportation from 2002 to 2006

The Walkable Seoul Project continued during the period from 2002 to 2006 under the leadership of the 32nd Mayor LEE Myung-bak. Several changes had been made during this period. The pedestrian plaza named Seoul Plaza was created in May 2004 right in front of Seoul City Hall, a place where cars previously had reign as there were a number of intersections there and all without crosswalks.

Figure 4.5 Area in front of Seoul City Hall before (left) and after the creation of a pedestrian plaza (right)

With the creation of Seoul Plaza, people could use a crosswalk in front of Seoul City Hall without using an underpass. The area is now the most symbolic place of the city. Moreover, this area was well known as the place where thousands of Koreans cheered on the national team during the 2002 FIFA World Cup. The transformation of the area into a pedestrian plaza carries significance as it means that the area, which used to be a car-oriented space that functioned like a highway interchange, has been reopened to people.

Sungnyemun Plaza (Namdaemun) was also created during this period. As National Treasure No. 1, Sungnyemun, the south gate in wall around Seoul, was the largest gateway through Seoul's protective wall during the Joseon dynasty (1392-1910). Despite its historical significance, Sungnyemun had been isolated like a remote island in the middle of heavily trafficked road

Figure 4.6 Before (left) and after (right) the creation of Sungnyemun Plaza

for a great time. With the creation of Sungnyemun Plaza, people could easy access the national treasure via a crosswalk. A crosswalk was installed also near Heunginjimun (South Gate of Seoul) (Dongdaemun), serving as a link between the sidewalk and the national asset.

The reform of the public transportation system undertaken during the second half of the period is also part of the Walkable Seoul Project. The new bus system, which is designed to expand bus-only lanes and remove transfer fares, is widely used in advanced countries to discourage car use and encourage mass transit. Some essential measures are included that ensure bus punctuality and a convenient and pleasant environment for passengers.

4. Creation of Gwanghwamun Plaza and Design Seoul Street

Among many projects related to pedestrians carried out during the two term Seoul Mayor of Seoul, OH Se-hoon from 2006 to 2011, most noteworthy may be the creation of Gwanghwamun Plaza and the Design Seoul Streets. Sejong Road, which starts at Gwanghwamun and is an entrance gate to Gyeongbokgung Palace, was the widest road at over 100 meters and served as a symbol of Seoul and the starting point of Korea's main road.

Sejong Road used to be a 16-lane, two-way road with a green strip lined with gingko trees. It was equipped with a sidewalk on each side but was car-oriented by nature. There have been several attempts to turn Sejong Road into a people-oriented space. For instance, the Project for Creating Sejong Road Scenic Street was designed to turn the middle section of Sejong Road between Gwanghwamun and Mt. Baekak into a scenic pedestrian street by narrowing the road. However, the project was abandoned at that time due to concerns that it would interrupt traffic flow. Mayor OH Se-hoon revived the project under a new name; the Project for Creating Gwanghwamun Plaza.

The Gwanghwamun Plaza Project started in May 2008 and was completed in July 2009. It included the reduction of the lanes from 16 to 10

Figure 4.7 Before (left) and after the creation of Gwanghwamun Plaza (right)

Source: Seoul City

and transformation of the strip with gingko trees in the middle of the road into a gigantic pedestrian plaza. The square was adorned with a large statue of King Sejong the Great and a fountain and other waterscape facilities around the statue of Admiral Yi Sun-sin.

The Gwanghwamun Plaza Project was lauded as it transformed the car-oriented Sejong Road into a pedestrian plaza where visitors have easy access to the historical space. However, there were some criticisms that the project stripped the historical place of its history and made it into an event venue, especially when a gigantic jump ramp was installed for the FIS Snowboard World Cup Big Air Competition in Gwanghwamun Plaza in December 2009.

Another project the OH Se-hoon advanced during his terms was the Design Seoul Street Project. Since the announcement of the plan in July 2007, Seoul created ten design streets by 2008 and 20 in total by 2009 while investing roughly KRW 130 billion. In response to the criticisms that various street-related projects in the past were undertaken individually and lacking organic integrity, the Design Street Project aimed to create world-class design streets in accordance with the basic principles of Design Seoul (airy, integrated, collaborative, and sustainable).

The project was received with mixed feelings among critics. Some applauded that the project took the design standards of streets in Seoul to the next level while others said the project was a waste of money by focusing on

appearance rather than practicality and the newly replaced sidewalk paving material was not eco-friendly due to its low permeability.

5. Project for Pedestrian-Friendly Seoul from 2011

PARK Won-soon became the 35th Mayor of Seoul on October 26, 2011 and unveiled his pedestrian-related policy in his Vision for Pedestrian-friendly Seoul in early 2013.

His vision for a pedestrian-friendly Seoul consisted of ten projects, including turning Sejong Road, Itaewon Road, Gangnam Boulevard and other busy streets into car-free streets on weekends or weekdays, creating pedestrian-friendly areas such as the Sinchon Transit Mall, creating pedestrian priority roads, installing additional escalators and elevators in subway stations for people with mobility difficulties, expansion of child safety zones, and restoring crosswalks in downtown Seoul.

Figure 4.8 Walking Festival at Gwanghwamun

Source: Newsis

Since declaring Seoul a pedestrian-friendly city, Sejong Road becomes a car-free zone twice a month. The annual Walking Festival from Sejong Road to the Han River has been held since 2013. In addition some crosswalks in downtown areas have been restored and plans to restore all crosswalks in downtown areas are in the works. However, the Seoul Metropolitan Police Agency has not yet agreed with Seoul to restore all the crosswalks in downtown Seoul.

Section 5

20-Year History of the Walkable Seoul Project: Its Accomplishments and Future Tasks

The pedestrian environment in Seoul has improved gradually for the past 20 years from the launch of civic movement for pedestrian rights in early 1993 to the declaration of Seoul as a walkable city by Seoul Mayor PARK Won-soon in January 2013.

1. Accomplishments

Car-free streets, which started first in Insadong, Myeongdong, and Gwancheol, have spread to all districts of Seoul. Pedestrian priority streets, which were applied first to Deoksugung Street in Seoul, are now ubiquitous in the city. Although crosswalks had to be removed with the opening of subway stations due to draconian clauses of the Road Traffic Act that prohibit the installation of a crosswalk near an overpass or an underpass, they were later restored and new crosswalks were installed on car-oriented districts such as the Gwanghwamun intersections and the street in front of City Hall.

There were times when passengers with babies had to walk long staircases holding their children with one hand and their strollers with the

other. However, almost all subway stations are now equipped with escalators and elevators for the convenience of the elderly and those with mobility difficulties. The Mass Transit Preferential Treatment Program, which includes operation of bus-only lanes and free transfer discounts, has contributed to a drastic increase in car users switching to public transportation.

The pedestrian environment in Seoul has been improved over the past 20 years. Determined not to rest on its achievements, Seoul declared the Pedestrian-Friendly City Project. However, there are still some tasks to be fulfilled in order to transform this vision into reality.

2. Tasks to be Fulfilled: Restoration of all Crosswalks and Governance

Seoul City needs several tasks to be completed to fulfill its vision for Seoul as a pedestrian-friendly city. One is the restoration of the crosswalks at all intersections in the city, promotion of more active public participation in its pedestrian project and the creation of a governance system.

Crosswalks function like bridges that allow pedestrians to cross roadways safely. No matter how beautifully designed, pedestrian underpasses or overpasses are intended to facilitate vehicular traffic flow at the expense of pedestrian convenience. The most important thing for walking convenience is the installation of as many crosswalks as necessary at all intersections.

In 1996, more than a half of all intersections over 12 meters in width had crosswalks, which mean that almost half of intersections were without crosswalks. The project for the installation or restoration of crosswalks has been carried out consistently and, accordingly, the number of crosswalks has increased since then. However, it is still not uncommon to find intersections without crosswalks. Moreover, some streets force pedestrians to take long detours to in order to cross.

Before the creation of Seoul Plaza in front of Seoul City Hall in May 2004, residents and visitors were unable to cross the street between there

to Gwanghwamun without using an underpass. It was in March 2005 that crosswalks were restored in all directions. The pedestrian plaza and these crosswalks carry symbolic significance. With this as the beginning, Korea needs to go beyond the capital city and start to uphold pedestrian rights throughout the nation. All intersections should be provided with crosswalks regardless of the existence of underpasses or overpasses as crosswalks help create a city full of vitality.

Crosswalks should be provided at all intersections in all directions, regardless of three or four-way intersections. The design of a crosswalk is as important as its installation. The proper design of a crosswalk should be selected among the various designs that exist. The design of a traffic island or a right-turn track is important, as well as traffic signal timing and operation. The installation of crosswalks at necessary locations with pedestrians under careful consideration will lay a solid foundation for the transformation of Seoul into a pedestrian-friendly city.

What is at stake in shaping Seoul into a walkable, pedestrian-friendly city is how the people pursue it. The public should be aware of the importance of pedestrian rights and take action to create a pedestrian-friendly city. Pedestrians should be as assertive as car users to make their voices heard and secure their rights by complaining about the inconveniences they are forced to endure and expressing anger over the disadvantages they experience in order to transform Seoul faster.

When civic activists called for the creation of a pedestrian plaza in front of City Hall 20 years ago, and when they conducted a campaign for the installation of crosswalks at Gwanghwamun Intersection, not many residents showed support or interest. At that time, the general public was captivated by the convenience that motor vehicles offer. Additional the general population was not well aware of cities that give priority to pedestrians. We are now living in a totally different era. The majority of residents are well aware of the value of a walkable, pedestrian-friendly city and its necessity. But why does Seoul remain so unfriendly to pedestrians?

The Basic Plans for the Pedestrian Environment Seoul were first drawn

up in 1998 and included several detailed projects for the transformation of Seoul into a walkable city along with strategies to put the plans into action. It emphasized the necessity to create a powerful body (Promotion Team for Walkable Seoul) to supervise and control various affairs undertaken by several departments under the city to improve the overall pedestrian environment and transform it into a pedestrian-friendly city. On the other, a citizens committee (Citizens Committee for Walkable Seoul) can draw participation of the public. According to the basic plans, these two organizations should form a governance system to take the initiative in advancing the plan. Unfortunately, Seoul failed to create the two organizations due to the financial crisis.

With the declaration of Seoul as a pedestrian-friendly city in 2013 as a beginning, the city should establish a governance system of two organizations to be established as early as possible. A pedestrian-friendly city is not created with a few car-free streets or pedestrian priority streets. A city formed and operated for cars should undergo a complete restructuring in order to be reborn as a pedestrian-friendly city. Seoul's administrative style and public perception should change first in order to transform every corner of the city. The collaboration between the Promotion Team for Creating Walkable Seoul and residents will advance the plan and make the dream of turning Seoul into a walkable, pedestrian-friendly city a reality sooner rather than later.

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Chapter 05

Enactment Process and Contents of Pedestrian Safety and Convenience Enhancement Act

SO Ki-ok
Planning and Managing Director,
Korea Elevator Safety Technology Institute

Section 1

Achievements of the Enactment of the Pedestrian Safety and Convenience Enhancement Act

1. Legislation by the Korean Parliament (National Assembly)

Korea experienced intensive economic growth in the 1970s and 1980s and as the society valued efficiency and effectiveness a vehicle-centered transportation culture formed. As the walking environment worsened and pedestrian safety arisen as a serious issue, a social consensus was established that the pedestrian framework should be legislated in order to improve the pedestrian environment.

On three occasions Parliament attempted to enact a pedestrian framework, all of which failed. The pioneering legislator was lawmaker SHIN Myeong who submitted a motion for the Act on the Rights of a Pedestrian after a series of expert discussion hearings in 2007. However, it was automatically discarded as it was not voted on during the session. On July 6 and September 5, 2009, lawmakers LEE Mi-kyung and YOON Young submitted motions, respectively, for acts on pedestrian safety. Unfortunately, neither of the two motions was voted on during the session due to the conflict between Parliament and national departments and they were discarded.

Figure 5.1 Hearing on legislation regarding pedestrian environment improvement and pedestrian rights

Source: Parliament, December 4, 2008.

2. Government's Enactment Efforts

The government, led by the Ministry of Public Administration and Safety, decided to enact the pedestrian framework act. Starting from April 2010, an expert consultation committee was set up with representatives from academic circles, research institutions, The media, civic organizations, and local governments which held frequent meetings. By collecting opinions from various segments of society, a draft of the Pedestrian Safety and Convenience Enhancement Act was compiled. After coordination of the opinions within the government, both the Ministry of Public Administration and Safety and the Ministry of Land, Infrastructure and Transport decided to make a joint legislation motion.

Starting from July 2010, 38 national administration organizations and local governments started to coordinate their opinions and go through several revisions in order to produce the final legislation draft. On February 10, 2011, the Office of the Prime Minister conducted the regulation review and

checked whether there were any unnecessary regulations, thereby effecting another revision and backup. In May 2011, the Ministry of Government Legislation completed its legal review. After these numerous reviews and revisions the legislation draft was approved during the Cabinet meeting. With the approval of the President it was submitted to Parliament for review on May 27.

The legislation draft submitted to Parliament was sent to Parliament's then Public Administration and Safety Committee. After the review of the legislation by members of Parliament, it was proposed as a new law to Parliament's Standing Committee of Public Administration and Safety Committee. Twenty-two Congressmen and Congresswomen from both parties went through the coordination and after a detailed review by the Sub-Committee of Legal Review in Public Administration and Safety Committee it was proposed for a vote and approved. Next, the draft was submitted to the general meeting of Parliament and it was approved on December 30, 2011. Thereafter, the legislation was subject to the review of the Cabinet meeting and the approval of the President. On February 22, 2012 it was announced as Act No. 11339, and after six months, starting from August 23, 2012, it became effective.

The Pedestrian Safety and Convenience Enhancement Act took five years to be finally enacted which reflects the experiences and expertise of many participants involved from diverse sections of society including government and civic organizations.

Section 2

Summary and Basic Contents of the Pedestrian Act

1. Pedestrian Act Summary

The Pedestrian Safety and Convenience Enhancement Act is composed of 30 Articles and two Addendums (Table 5.1). The Act includes the definition of the rights of pedestrians, obligations of the national government and local governments, and various systematic devices such as basic plans for pedestrian safety and convenience enhancement.

Table 5.1 Composition of the Pedestrian Safety and Convenience Enhancement Act

Article 1	Purpose
Article 2	Definitions
Article 3	Guarantee of Pedestrian Rights
Article 4	Responsibilities of State and Local Governments
Article 5	Relationship to Other Acts
Article 6	Fact-Finding Surveys to Enhance Pedestrian Safety and Convenience
Article 7	Formulation of Master Plans to Enhance Pedestrian Safety and Convenience
Article 8	Formulation of Annual Implementation Plans
Article 9	Designation of Pedestrian Environment Zones Subject to Improvement
Article 10	Implementation of Projects to Improve Pedestrian Environment

Article 11	Evaluation of Projects to Improve Pedestrian Environment
Article 12	Management of Pedestrian Environment Zones Subject to Improvement
Article 13	Cancellation of Designation of Pedestrian Environment Zones Subject to Improvement
Article 14	Prompt Clearance of Illegal Facilities
Article 15	Installation of Facilities to Enhance Pedestrian Safety and Convenience
Article 16	Designation of Pedestrian-Only Paths
Article 17	Development of Pedestrian-Only Paths
Article 18	Construction Authorization, Permits, ETC.
Article 19	Keeping Management Register of Pedestrian-Only Paths
Article 20	Review of Pedestrian Environment in Implementing Development Projects
Article 21	Securing of Pedestrian-Only Paths in Establishing Street Parking Lots
Article 22	Giving Priority to Pedestrian Rights
Article 23	Constitution and Operation of Council for Joint Installation of Public Facilities
Article 24	Installation of Visual Information Processing Systems for Pedestrian Safety
Article 25	Duty to Take Safety Measures for Pedestrians While Performing Construction Works
Article 26	Assistance in Research and Development Projects for Pedestrian Safety
Article 27	Implementation of Measures for Promoting Culture of Safe Pedestrian Traffic
Article 28	Delegation or Entrustment of Authority
Article 29	Penal Provisions
Article 30	Fines for Negligence

2. Basic Contents

• Purpose (Article 1)

The purpose of the Act is "to guarantee and create the rights (pedestrian rights) and pedestrian environment (comprehensive pedestrian environment: physical, ecological, and environmental) in which pedestrians can walk and live safely and conveniently." This has huge significance as the pedestrian rights and the relevant government obligations are stipulated in legal text.

• Legal Stipulation of "Pedestrian Rights" (Article 3)

"Pedestrian rights" has much significance as an abstract concept is stipulated in a legal manner. A supplementary gain or a passive right under the existing traffic regulation has been elevated to an individual civil right; a proactive

right. In particular, by explicitly stipulating that "The State and local governments shall guarantee and maximize people's rights to safely and conveniently walk in a pleasant environment," pedestrian rights have been formalized as a social right.

• **Responsibilities of State and Local Governments (Article 4)**

The State and local governments shall establish and implement policies so that pedestrians can safely and conveniently walk through pedestrian walkways in a comfortable pedestrian environment. The governments shall also endeavor to develop a pedestrian environment in which the elderly, pregnant, children, disabled, and people who have difficulty walking on their own, can safely and conveniently walk on pedestrian walkways without discrimination.

By stipulating that the State and local governments may fully or partially subsidize persons who perform a project for securing pedestrian rights or improving the pedestrian environment, within budgetary limits, for expenses incurred therein, the legal foundation for the budgetary support for the pedestrian environment improvement project is created.

Section 3

Formulation of Master Plans to Enhance Pedestrian Environment

1. Background

For the purpose of the successful execution and effectiveness of the pedestrian act, it is necessary to formulate specific goals and basic directions. Thus, the government conducted basic research regarding the Master Plan to Enhance Pedestrian Safety and Convenience so that each city government can formulate their own master plan.

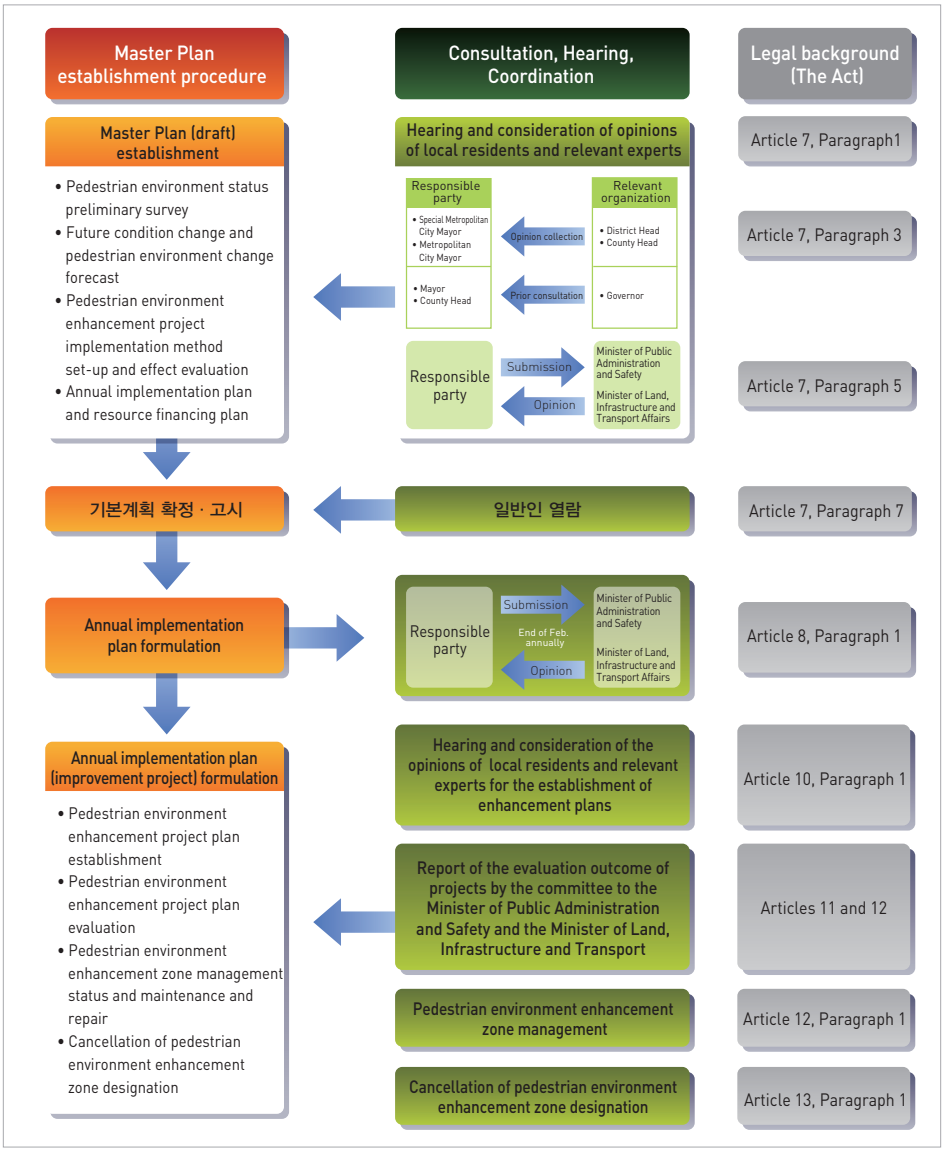
The Master Plan suggests a future vision for pedestrian safety and convenience enhancement and clearly sets goals so that the concepts and contents of the primary plan and related plans are realized via pedestrian environment improvement projects in accordance with the pedestrian act. It also specifically presents implementation strategies.

It intends to reject improvement projects flooded with disordered or unnecessary artificial structures by setting the directions and guidelines for pedestrian environment improvement schemes from the perspective of a people-centered city function recovery and alignment via the Master Plan. It also encourages priority given to areas with the most inadequate pedestrian safety and convenience, thereby implementing environment-friendly and

reasonable improvement schemes and creating safe, pleasant, and people-centered pedestrian environment thereby restoring the proper functions of a city.

Under the Master Plan, the social, economic, cultural activities, physical

Figure 5.2 Detailed procedure for creating the Pedestrian Environment Enhancement Project Basic Plan



environment status of a city, and future changes are subjected to scientific analysis. The impact of the improvement schemes are evaluated per stage, thereby reacting effectively to future changes with respect to pedestrian safety and convenience enhancement. The guidelines were formulated in order to improve the reasonableness and effectiveness of the improvement projects.

By notifying each local government of the procedures and methods of the Master Plan formulation, project implementation was promoted and any errors that may occur during the implementation process were minimized. The specific formulation process of the Master Plan is shown in Figure 5.2.

2. Formulation of Master Plans by Local Governments to Enhance the Pedestrian Environment (Articles 6, 7, 8)

Local governments shall formulate a master plan for enhancing pedestrian safety and convenience every five years upon gathering the opinions of local residents and relevant experts based on the outcomes of the fact-finding survey. Local governments shall also formulate annual implementation plans and designate, repair, improve, and manage zones with heavy pedestrian traffic volume or inconvenient zones for pedestrians. In order to prevent any redundancy and reduce the workload of local governments, if matters to be included in a master plan are included in any of the following plans, they shall be deemed that a master plan has been formulated with respect to such matters: a plan to improve pedestrian traffic under Article 38 of the Sustainable Transportation Logistics Development Act, a local plan to improve the transportation convenience of mobility disadvantaged persons provided for in Article 7 of the Act on the Promotion of the Transportation Convenience of Mobility Disadvantaged Persons, or other transportation or pedestrian traffic-related plans.

A master plan shall include the following: 1. basic direction-setting for and objectives of policies for securing pedestrian safety and enhancing pedestrian convenience, 2. annual plans for implementing projects and

procuring necessary funds, 3. installation, maintenance, and repair of facilities for pedestrian safety and improvement of performance of such facilities, 4. rearrangement of facilities and things placed on the road which obstruct pedestrian traffic or threaten pedestrian safety, 5. construction of new pedestrian walkways and connection of disconnected pedestrian walkways, 6. raising awareness of pedestrian safety and public relations thereon, and 7. improvement of the pedestrian environment in any of the following areas and neighboring areas: protective areas for children, the elderly or the disabled. When a master plan is formulated, the opinions of the heads of autonomous districts or the heads of counties within the jurisdiction of the local government shall be heard.

When the head of a local government drafts a master plan, he/she shall submit the draft to the Minister of Security and Public Administration and the Minister of Land, Infrastructure and Transport before finalizing the master plan. The finalized master plan shall be disclosed to the public for their reading. The formulation of an annual implementation plan designed to the execution of the master plan is mandatory so that the plan remains at the level of a mere plan.

Each local government shall finalize its own master plan hereunder during the first half of 2014 (2014-2018 or 2015-2019) and intend to create a pedestrian-friendly city and people-centered transport environments. These plans include a budget estimate. In the case of Daejeon Metropolitan City, it will cost 165.8 billion won for the next five years.

Figure 5. 3 Public hearing prior to the implementation of a pedestrian environment improvement project

Source: Hongseong County, Chungcheongnam Province (http://www.hongseong.go.kr)

Section 4

Pedestrian Environment Improvement Zone Project

1. Designation of Zones Subject to Pedestrian Environment Improvement

An area with heavy pedestrian traffic, inadequate pedestrian environment, or an area that should be preserved, developed or specialized due to its unique cultural or environmental characteristics can be designated as a zone subject to pedestrian environment improvement. The improvement goal is to increase the service level of zones with a C-level of pedestrian service to no less than a B-level, thereby enhancing pedestrian safety and convenience.

Article 9 of the Pedestrian Act stipulates the following areas as zones subject to improvement of the pedestrian environment:

- Areas with heavy pedestrian traffic
- Areas with a high frequency of trips by the elderly, pregnant, children, and the disabled
- Areas where traditions and culture of historical significance have been formed
- Areas where the pedestrian environment needs to be improved preferentially.

A scheme to improve the pedestrian environment shall include the following matters:

- Construction of new pedestrian walkways, connection of disconnected pedestrian walkways, and construction of pedestrian walkways
- Creation of pedestrian walkways in harmony with the traditions and culture of the relevant area
- Separation of vehicle lanes and sidewalks, installation of elevated crosswalks (crosswalks built higher than the adjacent road), installation of street lamps and security lighting fixtures, installation of visual information procession systems, improve performance of such facilities, and other installation, maintenance and repair of facilities for pedestrian safety
- Rearrangement of facilities and things placed on the road which obstruct pedestrian traffic or threaten pedestrian safety
- Installation of facilities to enhance pedestrian convenience for the elderly, pregnant, children, and the disabled

Through implementation of the aforementioned action plans, vehicle volume and speed can be reduced, pedestrian space can be expanded, pedestrian walking speed can be improved, and pedestrians can receive priority over vehicles with respect to passage.

For maximum effectiveness under the pedestrian base cultivation project, experts personally visit project zones recommended by cities or provinces, hear the opinions of the relevant local government, evaluate the propriety of the project, and make a final selection. Thus, during the project implementation, the site is frequently visited and consulting shall be provided for any guidance.

Pedestrian base cultivation projects have been executed at the level of surface, rather than lane, which was the focus of previous projects. In other words, it considers the characteristics and conditions of the pertinent region in order to facilitate various developments.

2. Development of Zones Subject to Pedestrian Environment Improvement (Articles 9, 10, 11, 12, 13)

For implementation of projects seeking to improve pedestrian environments, the following shall be included in the relevant plan: construction of new pedestrian walkways, connection of disconnected pedestrian walkways, creation of pedestrian walkways in harmony with the traditions and culture of the relevant area, separation of vehicle lanes and sidewalks, installation of elevated crosswalks (crosswalks built higher than the adjacent road), installation of street lamps and security lighting fixtures, installation of visual information procession systems, and improvement of performance of such facilities, other installation, maintenance and repair of facilities for pedestrian safety, rearrangement of facilities and things placed on the road which obstruct pedestrian traffic or threaten pedestrian safety, installation of facilities to enhance pedestrian convenience for the elderly, pregnant, children, and the disabled, and other facilities as necessary to improve pedestrian safety and convenience.

The State may partially subsidize a local government for expenses incurred in implementing a project to improve the pedestrian environment within budgetary limits and shall actively endeavor to secure financial

Figure 5.4 Before and after comparison of pedestrian environment improvement scheme

Location: Digital Road 32 Na Street, Guro District, Seoul

resources therefor in a sustainable manner.

When the Special Metropolitan City Mayor completes a project to improve the pedestrian environment, he/she shall inspect the management conditions of each zone subject to improvement of the pedestrian environment each year and shall perform maintenance and repairs, if necessary.

3. Repair and Installation of Facilities to Enhance Pedestrian Safety and Convenience (Articles 14, 15)

As the pedestrian act secured pedestrian rights and safety, the heads of local governments now have the obligation to secure pedestrian safety and enhance convenience in pedestrian traffic. As a result, in order to resolve any inconvenience a pedestrian may feel, local governments shall install the following facilities for enhancing pedestrian safety and convenience in pedestrian traffic on roads within a zone subject to improvement: facilities for reducing the speed of vehicles, facilities for pedestrian safety such as crosswalks and traffic islands, facilities for preventing pedestrians from crossing a road with no crosswalks, and traffic signals for pedestrians.

Figure 5.5 Examples of installation and repair of facilities in a zone subject to pedestrian environment improvement

Crosswalk nighttime light | Security camera installation

The local government shall promptly clear facilities illegally installed in violation of a relevant act or subordinate statute, such as things placed on the road and outdoor advertisements that obstruct pedestrian traffic in a zone subject to pedestrian environment improvement. In addition, the local government may recommend action against an individual who produces noise, exhaust fumes, odor, or dust which obstructs pedestrian safety or anything else that is likely to harm pedestrians in a zone subject to pedestrian environment improvement. The local government is to take measures necessary for pedestrian safety and to prevent harm from coming to them.

Section 5
Pedestrian-Only Paths

1. Pedestrian Walkway (Article 2)

A pedestrian can walk anywhere in the country. Therefore, the definition of "pedestrian walkway" is very important in the sense that it shall limit the scope of the effectiveness of this Act. Based upon a series of reviews and discussions, "pedestrian walkway" shall be defined as locations in which the general public can walk in an ordinary and proper manner: sidewalk, roadside, crosswalk, place provided for pedestrian traffic in a park, pedestrian underpass or overpass or other road-crossing facility, alley, or other path for unspecified pedestrians. Among the aforementioned list, the path requiring the "preservation of ecological and cultural resources" shall be deemed as a "pedestrian-only path."

2. Designation and Management of Pedestrian-Only Paths (Articles 16, 17, 18, 19, 30)

Under this Act, a pedestrian walkway requires not only the guarantee of a

Figure 5.6 Examples of installations on pedestrian walkways

pedestrian's right to walk but also the preservation of ecological, cultural, and forest resources shall be designated or created as a "pedestrian only-path" by the heads of local governments. A pedestrian only-path has the purpose of preserving the neighboring ecological environment and satisfying the needs of pedestrians via ecological and cultural exploration, experience, and health improvement thereby giving rise to the special management of such paths. Excluding emergencies or construction, the passage of vehicles shall be restricted, thereby guaranteeing the safety of pedestrians and vitalizing street culture. And by conducting a regular annual maintenance inspection, the utility of pedestrian-only paths shall be maximized.

The designation of pedestrian-only paths shall not be a one-way decision by the government. Rather, it should reflect the opinions of various parties

Figure 5.7 Example of a pedestrian-only path in Seoul

Source: Hanyang District Wall, Seoul http://seoulcitywall.seoul.go.kr

and go through a careful review process. The head of a local government shall formulate a plan to develop pedestrian-only paths after consulting thereon with the head of the relevant administrative agency having jurisdiction over the area under any other Act or subordinate statute, hear opinions from local residents and relevant experts, and shall inform the general public thereof through the relevant website or official bulletin.

When the local government has formulated a development plan for a pedestrian-only path, the following authorization, permits, reporting, etc. shall be deemed granted or filed: a permit for river walks, a permit to divert a mountainous district, and a permit to engage in development activities.

Section 6

Other Efforts to Secure Pedestrian Rights of Walking

1. Parallel Implementation of Pedestrian Project with Other Development Projects Such as New City Complex Development or Housing Site Development (Articles 20, 21)

Upon implementation of other development projects, such as new city complex development or housing site development, the neighboring pedestrian environment shall be revised and a scheme for securing pedestrian safety and enhancing pedestrian convenience shall be prepared, thereby preventing any budgetary waste due to redundant investment in the future. Walkways used to be recognized as a space. However, with the enactment of the Act they are now recognized as surfaces. As a result, pedestrian environment improvement measures, which are comprehensive and customized per zone, can be established.

A scheme for enhancing the pedestrian environment shall contain the following: development of safe pedestrian-only paths, installation of facilities for securing pedestrian safety on the road, measures for reducing driving speed a residential areas, installation of pedestrian traffic signs, installation

of protective zones for the elderly, children, disabled, etc., other matters are jointly prescribed by ordinance of the Ministry of Security and Public Administration and the Ministry of Land, Infrastructure and Transport.

2. Creation of a Pedestrian-Centered Walking Environment (Articles 22, 23, 24, 25)

The Act has derived a paradigm change regarding road traffic from vehicle-centered to human-centered. As such, the Act stipulates the priority be given to pedestrian rights, such as no person who drives a vehicle on a pedestrian walkway shall obstruct safe pedestrian traffic. It also stipulates that a person who occupies and uses a pedestrian walkway shall provide safe alternative pedestrian passages.

Also, in the case of the installment of utility poles or other facilities that may threaten pedestrian safety, the Council for Joint Installation of Public Facilities shall be constituted and operated, thereby restricting or actively removing any threatening factors to pedestrians on walkways. For the safe passage of pedestrians, a visual information processing system (CCTV) or security lighting fixtures can be installed along a pedestrian walkway.

Figure 5.8 Examples of creating a pedestrian-centered walking environment

Decrease of vehicle road width | Pedestrian-centered street environment

3. Promotion of Research and Development Projects for Pedestrian Safety Culture (Articles 26, 27, 28, 29)

Korea has suffered from inadequate research and development activities designed to secure pedestrian safety and enhance pedestrian convenience as well as efforts to promote voluntary advanced pedestrian safety culture. Going forward, the government shall lead research and development projects on enhancing pedestrian safety and convenience and in order to support the activities of civic organizations for activating pedestrian safety culture, financial assistance shall be provided. The systematic foundation that promotes pedestrian safety culture has been established via development of methods for residents' participation and educational programs for diffusion of a culture that respects safe pedestrian traffic.

4. Penal Provisions in Order to Secure the Effectiveness of the Act (Articles 29, 30)

In order to secure the effectiveness of this Act and to protect pedestrians, persons committing the following acts shall be punished: a person who destroys a visual information processing system such as CCTV, a person who fails to provide safe pedestrian passage or hinder established safety facilities after he/she has received a corrective citation due to illegally occupying a pedestrian walkway, and a person who is the driver of a vehicle who enters a pedestrian-only path.

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Chapter 06

Best-Practice Cases of Improving the Pedestrian Environment

KIM In-seok
Principal Researcher,
Samsung Traffic Safety Research Institute

CHO Jun-han
Senior Researcher,
Samsung Traffic Safety Research Institute

This chapter explores the various forms of improving the pedestrian environment with a focus on some best practice cases which have been led by the national government and local governments for the purpose of ensuring pedestrian rights and safety. These cases include the Pedestrian Priority Zone Project conducted by the Ministry of Land, Infrastructure and Transport, car-free streets, transit malls, green parking led by Seoul City, and the Pedestrian Environment Improvement Project led by the Ministry of Security and Public Administration. All these schemes have different characteristics and all of them are deemed as having contributed to the enhancement of pedestrian convenience and safety which is improving the quality of life for residents.

Section 1

Pedestrian Priority Zone Project

1. Overview

In pedestrian priority zones, pedestrians take priority over vehicles. These zones were constructed by the Ministry of Land, Infrastructure and Transport over the course of seven years from 2007 to 2013. Pedestrian priority zones form pedestrian-centered living zones in which pedestrian priority roads organically connect major facilities and locations.

In order to assure pedestrian safety, traffic calming techniques are applied improving the paving, landscape, street furniture, and lighting facilities on roads. Residential and commercial roads with a higher risk of traffic accidents or with poor conditions for pedestrians shall be repaired, thereby facilitating the pedestrian environment. This project installed speed-reduction facilities such as raised intersections or zigzag-type roads and pedestrian crossing facilities, public transportation guide facilities, and pedestrian protective gates. Pedestrian priority zones and various road types have been comprehensively planned and constructed depending on zone characteristics such as pedestrian mall (pedestrian exclusive roads), pedestrian priority roads, pedestrian-vehicle mixed roads, and pedestrian plazas.

By installing roadside obstacles (cables, control boxes, etc.) underground for enhanced aesthetics and safety, roadside obstacles are minimized and due consideration is given to transport facilities for vulnerable road users (guide facilities for visually handicapped persons, differentiating between roads and sidewalks). The Pedestrian Priority Zone Project plays a major role in improving the transport convenience of transportation of vulnerable road users (children, senior citizens, etc.) and making the pedestrian environment more pleasant.

2. Best Practice Case 1: Lee Jung Seop Culture Street in Jeongbang Neighborhood, Seogwipo City, Jeju Island

• Background

Jeongbang Neighborhood in Seogwipo City of Jeju Island is the general commercial district of the old side of town. Its pedestrian volume is high but due to the poor condition or highly damaged sidewalks and illegal parking or stopped vehicles, the walking environment is very poor. This led to numerous residents' demanding pedestrian environment improvement. In 2007, Seogwipo started the Pedestrian Priority Zone Demonstration Project led by the Ministry of Land, Infrastructure and Transport in order to secure the safety of pedestrians and make the pedestrian environment more pleasant.

Pedestrian priority zone projects have been conducted in parallel with the Lee Jung Seop Culture Street Demonstration Project. The purpose is to improve the inadequate pedestrian environment, revitalize regional commercial districts and create cultural art streets through the enhancement of the transportation network, pedestrian safety, signboard design, and road conditions.

• Implementation Process

This pedestrian priority zone project was one of the winners in the contest held by the Ministry of Land, Infrastructure and Transport in September 2007 and the design was completed after gathering the opinions of local

residents in November 2008. Construction started in July 2009 under the name Lee Jung Seop Culture Street Pedestrian Priority Zone Project. In order to reach consensus between residents and local business operators regarding the scheme's implementation, a 10-member working committee was composed of local representatives, thereby minimizing potential conflict between residents and local business operators. Construction was completed in February 2010.

• Operation Status

This business area is 370 meters long from Jungjeong Road Usaengdang to Suhyeob Intersection and divided into three sections. Each section has a unique theme and each has been recreated as a luxurious street with distinct characteristics, allowing everyone to enjoy a pleasant experience walking down it. The first section is a space for people to relax with the theme of "waiting and meeting," while the second section is the festival street, and the third section is the space of cultural experiences. The width of the sidewalks is set at a maximum of 3.7 meters whereas roads are set at a minimum 2.5 meters, thereby securing sufficient walking space for pedestrians and eliminating the distinction between roads and sidewalks. For the purpose of vehicle speed reduction chicanes (zigzag curved roads) have been installed on the central street of Seogwipo.

• Achievement

Lee Jung Seop Culture Street has emerged a new cultural hotspot in Jeju. In particular, a cultural street was created with resident participation including the Lee Jung Seop Art Museum, his former house, and an experience hall. The number of tourists has more than doubled and the neighboring commercial districts have been revitalized. In addition, the rights of vulnerable pedestrians, which may be infringed due to the increase of pedestrian volume, have been secured. Consequently, a pleasant pedestrian environment has been created, thereby greatly increasing the satisfaction of local residents and tourists.

Figure 6.1 Jeju's Lee Jung Seop Culture Street Pedestrian Priority Zone Project before and after

Before implementation

After implementation

3. Implementation Status and Other Cases

The Pedestrian Priority Zone Project has been implemented in several locations including Seogwipo in Jeju, Ulsan, Jinju, and Guro District in Seoul

(Table 6.1). Starting from 2012, the scheme has been implemented.

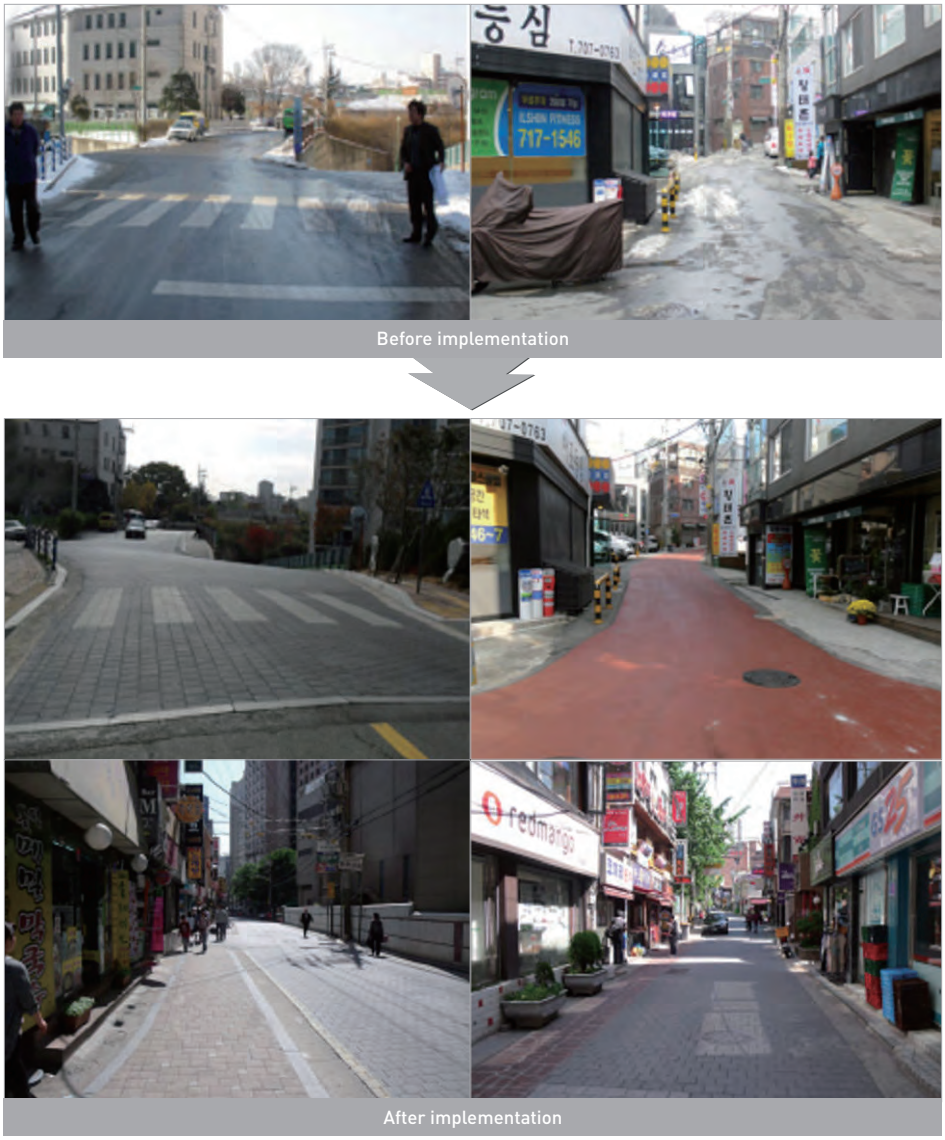
The implementation of the Pedestrian Priority Zone Project has led to the positive outcomes. For instance, upon the implementation of the Pedestrian Priority Zone Project in Mapo District, Seoul, the number of traffic accidents has decreased from 5.5 incidents/km to 4.7 incidents/km and that of pedestrian traffic accidents has greatly reduced from 4.3 incidents/km to 2.6 incidents/km. The vehicle speed has decreased from 25.3 km/h to 15.3 km/h and the vehicle volume has been reduced from 313 vehicles/h to 217 vehicles/h whereas the pedestrian volume has increased from 522 persons/h to 641 persons/h.

Table 6.1 Walking priority zone scheme implementation status

Type	Year	Contents
1st pilot projects	2007	• Ulsan City: Jung District, Buk District, and Nam District • Gyeongnam Province: Jinju City • Gyeongnam Province: Miryang City • Jeollanam Province: Suncheon City • Seoul City: Yeongdeungpo District • Chungcheongnam Province: Asan City • Jeju Island: Seogwipo City
2nd pilot projects	2008	• Gyeongnam Province: Geoje City • Chungcheongbuk Province: Jincheongun • Daejeon City: Seo District • Seoul City: Mapo District • Incheon City: Namdong District • Gwangju City: Seo District
3rd pilot projects	2009	• Jeonju City: Jeonbuk • Daegu City: Dung District • Seoul City: Guro District
4th pilot projects	2010	• Jeonnam Province: Muju County • Chuncheon City: Gangwon • Wonju City: Gangwon
5th pilot projects	2011	• Gwangju City: Gwangsan District, , • Gyeongnam Province: Geoje City
1st full projects	2012	• Gyeonggi Province: Bucheon City (Joong Neighborhood/Simgok Neighborhood) • Seoul City: Gwangjin District
2nd full project	2013	• Seoul City: Gwangjin District (continued)

Source: 2013 Pedestrian Priority Zone Project Research, Ministry of Land, Infrastructure and Transport, February 2014.

Figure 6.2 Pedestrian Priority Zone Project in Dohwa Neighborhood of Mapo District in Seoul before and after



Source: Ministry of Land, Infrastructure and Transport

Section 2

Construction Project for Car-Free Streets and Pedestrian-Friendly Green Streets

1. Overview

In the 1990s, the Seoul government started to meditate on street design in Seoul. The evaluation concluded that streets were complex and difficult to ascertain their lay-out. Others said the streets were filled with similar scenery, lacking distinctiveness, or they seemed like a maze. Also discovered was walking was dangerous and inconvenient. Streets should serve both vehicles and pedestrians and they should be convenient, safe and pleasant for pedestrians. None of these conditions were being met at the time in Seoul.

As the primary municipality in Korea, Seoul enacted in 1997 the Seoul Metropolitan City Basic Ordinance for Pedestrian Rights and Pedestrian Environment Improvement. Accordingly, in 1998 the 1st Pedestrian Environment Basic Plan was established in Seoul. For the next 15 years, street environment improvement schemes have been consistently implemented in various areas, including the Car-Free Street Development Scheme, Pedestrian-Friendly Green Street Development Scheme, Trial Pedestrian-Friendly Street Development Scheme, History and Culture Exploration Street Development Scheme, and Designation of Culture and Art Streets.

A car-free street refers to pedestrian space in which vehicle entry of existing roads is limited in a physical and temporal manner. The creation of car-free streets was based upon the recognition of the problems of the existing vehicle-centered transportation system. The construction movement of car-free streets is to create space in which the use of vehicles is reduced or limited and to refurbish the street environment so as to make streets and parking lots accessible to pedestrians and bicycles.

The car-free street scheme was actively implemented with Myeongdong street and Jungang street in 1997 with the aim of creating safe and pleasant pedestrian environment and vehicles are restricted or prohibited entirely on certain days and during specific hours. The scope of the scheme was shopping and tourism spots, areas in need of traditional culture preservation, areas with a large number of pedestrians, expansion area of pedestrian environment improvement, car-free street feasible area, etc. Two or more land return roads and roads with the distance of no less than 300 meters have been granted priority.

Pedestrian-friendly green streets were constructed as a part of pedestrian/vehicle coexistence type street construction business for the purpose of greening of urban areas and improvement of landscaping level under Seoul five year plan for park and landscape management. In addition to the construction of the 270 meter-long Deoksu Palace Stonewall Walkway in 1997, which has been generally known as the tonewall Walkway in Memory, a total of 14.38 km over 27 locations were subject to the city tree-planting and area greening from 1999 to 2007. The city of Seoul has continued plant more trees.

The purpose of constructing pedestrian-friendly green streets is to reduce the vehicle-centered roads and expand sidewalks, thereby creating a green belt and pedestrian-friendly green roads providing a pleasant pedestrian environment for residents, and improving the municipal landscape by establishing a green network. In other words, the scheme aims to create a "nature-human-ecosystem" co-existent networking based upon the concept of green roads.

2. Best Practice Case 2: Seoul Insadong Street Car-Free Street

• Background

Like any other major cities in advanced countries, Seoul has formulated various policies in response to diverse problems, such as traffic accidents, traffic congestion, air pollution, traffic noise, and energy depletion ? all of which arise from the major means of city transportation; motor vehicles. In line with such policy direction, the construction of car-free streets forces vehicles out and gives back space to pedestrians.

Car-free streets are not simply about creating streets without any vehicles. Rather, it has implications relating to cultural movements as it transforms the consciousness of people who have been governed by motor vehicles and helps them realize how eco-friendly the metropolitan space can be and how easy it is to live in harmony in a community.

• Implementation Process

The car-free street scheme, with the aim of creating a safe and pleasant pedestrian environment, was actively implemented in Myeongdong Street and Jungang Street in 1997. The scope of the scheme included shopping and tourism spots, areas in need of traditional culture preservation, areas with a large number of pedestrians, expansion areas of pedestrian environment improvement, and car-free street feasible areas. Roads with two or less lanes and roads with a distance of no less than 300 meters were granted priority.

• Operation Status

Insadong Street located in Jung District of Seoul was designated as a raditional culture street in 1998. The car-free street scheme was implemented in 1997. In 2000 it was designated as a istory culture exploration street and in 2002 it was designated as a ultural zone. Thus, Insadong Street is a representative case in which several schemes are conducted in the same target area. As several schemes have taken place in this same area, there are diverse

parties involved in their implementation ranging from the government and private sectors including Eco-friendly Transportation Department of Climate Environment Headquarters of Seoul Metropolitan City, Seoul Metropolitan Police Agency, Culture Promotion Department of Jongno District, and Insa Traditional Culture Preservation Society, etc. It has been cited as a successful scheme implementation case via close cooperation between interested parties.

The Insadong Street Car-Free Street Project first started in April 1997 prohibited vehicles in certain areas on Sunday (10:00 AM - 10:00 PM) then it was expanded to cover weekends from June 2003. Starting from November 2011 it was changed to cover weekdays, thereby completing the walking tourism belt that connects Cheonggyecheon Stream to Insadong and Bukchon, which served as an opportunity for Insadong to grow as a luxury boulevard. Currently Insadong Street only allows firefighting, police, hospital,

Figure 6.3 Insadong Street Car-Free Street Project implementation before and after

or public facility maintenance vehicles. Vehicles for priority facilities (framer, gallery, antique art, handicraft, etc.) and quasi-priority facilities (frame store, hanbok (traditional Korean clothing) store, etc.) are allowed in the street only during certain days and hours.

• **Achievement**

After implementation of the car-free street project, Insadong Street has emerged as a tourism spot and Korea most representative traditional cultural street frequently visited by foreign tourists as it is the center of traditional culture art activities, full of antique stores and art galleries. As Insadong Street is now a car-free street even during weekdays, the average daily number of pedestrians recorded an increase of 20% from 30,000. The pedestrian environment has become more pleasant as well.

3. Best Practice Case #3: Pedestrian-Friendly Deoksu Palace Stonewall Walkway in Seoul Metropolitan City

• **Background**

Bukchang Neighborhood nearby Deoksugung Palace was in need of revitalization measures as it was falling behind after redevelopment and the commercial sphere was reduced in size in spite of being in the central area of Seoul. Accordingly, Seoul established a plan to establish streets dedicated to walking in tandem with tourism revitalization including Myeongdong, Deoksu Palace Stonewall Walkway and the Deoksu Palace Changing of the Royal Guards ceremony, which have received wide acclaim from residents. The purpose was to revitalize the city by attracting more local and foreign tourists and invigorate local commercial districts. Deoksu Palace Stonewall Walkway is also the center of administration, culture, transportation, and tourism in which Gwanghwamun, Namdaemun, Jongno, Cheonggyecheon Stream, Euljiro, and so forth spread out like the spokes of a wheel with City Hall in the center. It is also the starting point of the pedestrian-friendly street

construction zone in central Seoul connecting Deoksugung Palace Stonewall Walkway, Sogong Neighborhood Street, Myeongdong Street, Mareunnae Street, Donhwamun Road, and Hanok Village (Pil Neighborhood). Seoul constructed the old-fashioned Deoksugung Palace Stonewall Walkway as a street for pedestrians and vehicles to co-existent in accordance with the Seoul Metropolitan City Five-Year Plan for Park and Landscape Management.

• Implementation Process

The plan for the Deoksugung Palace Green Street Project was confirmed after having collected the opinions of local residents as much as possible including Commercial District Prosperity Committee, Women Society, neighborhood representatives, etc. concerning the following issues: vehicle passage (one-way streets), road line adjustment (curve lines), lack of parking space (street parking operation), guarantee of pedestrian rights, maintenance of commercial sphere, provision for resting places, etc. Deoksugung Palace Stonewall Walkway is the first case of the transformation of existing roads for pedestrians and vehicles to co-existent. Thus, the construction design specifications did not have adequate information on previous construction cases of local pedestrian streets, pavement and landscaping, etc., thereby giving rise to problems during the construction phase.

• Operation Status

The most representative success case implemented by Seoul of a pedestrian-centered green street construction scheme consisting of two phases the first of which was located from Daehanmun Gate of Deoksugung Palace to the Old Supreme Court (270 meters) and implemented in 1997. The two-way street was a standard street 3.5 meters in width. The remaining space consisted of sidewalks where Zelkova serrata trees were planted and benches, flowerpots, and painted markers symbolizing major aspects of the area were installed. In order to reduce the vehicle speed in a physical and psychological manner, a curvy S-type street structure was adopted with bollards, cobblestones, speed humps, and brick walkways installed.

In 1998 the greening continued as phase two started from the Old Supreme Court to Kyunghyang Daily News Building (630 meters). A foundation was installed for a cycle rotary at Jeongdong Intersection connecting the first and second phases. The width of two-way roads was 7 meters whereas the width of sidewalks was a mere three to seven meters; not

Figure 6.4 Deoksugung Palace Stonewall Walkway Pedestrian-Friendly Green Street Project implementation before and after

Before implementation

After implementation

significantly different from existing roads. As they were operated as two-way streets, the S-type curve radius was enlarged whereas the width of sidewalks were maintained at the current level. As a result, tree planting was reduced and installation of convenient facilities, including benches, was restricted leaving room for future improvement.

• **Achievement**

The Deoksugung Palace Stonewall Walkway is now operated as a one-way street and the road width was reduced. Meanwhile convenience facilities and waterscape facilities have been constructed, trees and flowers have been planted, and streets were paved. The results have received wide acclaim from the public. From an environmental perspective, landscaping and resting spaces were created and green streets were secured, thereby contributing to the fight against global warming and minimization of the "heat island" effect.

The Deoksugung Palace Stonewall Walkway has contributed to local development by transforming deteriorated streets into more convenient and pleasant pedestrian environments. After implementation pedestrians walk at a more leisurely speed than before and often engage in dialogue while walking side by side. It is the most representative case of both a pedestrian-centered street and pedestrian rights. The walkway has made a great contribution to the aesthetic improvement of walking space and the transformation of public awareness regarding pedestrian-centered street space. It is the best success case in the history of modern landscaping in Korea and is a cultural heritage site chosen as the most beautiful boulevard in Korea.

4. Implementation Status of Car-Free Street Projects in Seoul

As of 2011, car-free street schemes were conducted in 24 locations throughout Seoul (Table 6.2). They are operated during certain hours or every day in vehicle control methods usually in the central commercial zones

or residential zones.

Table 6.2 Seoul Car-Free Street implementation status

Type	Street name	District	Implemented	Size (m)		Operation
				Width	Length	
Single transverse (commercial district)	Gwancheoldong	Jongno	1997	15	150	Daily / 24/7
	Insadong	Jongno	1997	9	340	Weekend / by the hour
	Nagwondong	Jongno	1999	15	200	Weekend / by the hour
	Daemyeong Boulevard	Jongno	2001	10	350	Weekend / by the hour
	Marronnier	Jongno	2004	6~8	1,050	Weekend / by the hour
	Namdaemun Market	Jung	2010	10	1,040	Daily / 24/7
Single transverse (non-commercial districts)	Wonmaeul	Seocho	2004	6	133	Weekend / by the hour
	Cheonggyecheon Stream Road	Jongno	2005	10	880	Weekend / by the hour
	Uicheon	Nowon	2008	8	383	Weekend / by the hour
	Bonghwasan	Jungnang	2011	4,8	400	Weekend / by the hour
Transverse mesh	Myeongdong	Jung	1997	6~9	480	Weekend / by the hour
	Jungang	Jung	1997	6~9	1,080	Daily / by the hour
	Changdong 1	Dobong	1998	6~8	210	Daily / 24/7
Civic promotional purpose	Jongno	Jung	2007	22~30	2,800	Sept. 22 (Car Free Day)
	Cheonggyecheon Stream Road	Jongno	2008	10~12	1,300	
	Teheran	Gangnam	2009	42~48	2,400	

Source: Seoul City homepage (http://traffic.seoul.go.kr).

Figure 6.5 Car-free street implementation at Cheonggyecheon Stream Street before and after

Before implementation

After implementation

Section 3

Transit Mall Construction Project

1. Overview

Transit malls refer to the pedestrian exclusive space centering on mass transportation that restricts the passage of standard vehicles and allows only mass transportation, such as buses or streetcars. Transit malls have been constructed in order to revitalize commercial districts of the metropolitan area, secure pleasant and safe walking space, improve the landscape of urban streets, and promote the smooth operation of mass transportation. Specifically, transit mall demonstration business creates urban structure space centering on mass transportation, bicycles, and walking via street diet or relaying pavement, thereby facilitating the use of green transportation methods and the relaxing of traffic jams.

Transit malls have the strength of promoting mass transportation usage and facilitating pedestrian trips by reducing the road width for vehicles and creating eco-friendly and pleasant sidewalks. The first transit mall in Korea is Daegu Jungang Street which was constructed in December 2009. The ideal conditions for the construction of transit mall are as follows (YOO Young-keun et al., 2010):

- Commercial districts can be revitalized with the construction of transit malls
- Road environments can be improved with the construction of transit malls
- Road width is around 15 to 25 meters and the length is around 800 to 1,000 meters
- A proper commercial district is composed of facilities with a high capacity to attract visitors, such as department stores, transportation terminals or movie theaters
- The quality of mass transportation can be improved with the construction of a transit mall
- The agreement of interested parties can be easily reached

A transit mall shall be classified into three types: bus, tracked, or mixed, depending on the characteristics as shown in Table 6.3.

Table 6.3 Transit mall classification

Type	Characteristics
Bus transit mall	• Only route bus or shuttle bus
Tracked transit mall	• Light rail transit, streetcar, etc. • Create existing streetcar route nearby or adopt light rail, etc.
Mixed transit mall	• Passage of buses and streetcars, etc.

Source: Transit Mall Design and Operation Guidelines, Ministry of Land, Infrastructure and Transport, December 2011.

2. Best Practice Case: Jungang Street in Daegu Metropolitan City

• Background

The construction of Jungang Street Transit Mall in Daegu materialized through establishment of the Mass Transportation-Centered Comprehensive Transportation Measure in February 2003. At that time, a public transportation priority policy was desperately needed due to the dramatic

increase of motor vehicles owned, low usage of public transportation, and limited supply of traffic facilities.

• Implementation Process

The biggest difficulty during the implementation process was to obtain the understanding and cooperation of merchants along Jungang Street. Accordingly, several meetings with merchants were held and consent for the project was derived at said meetings. Traffic experts at local governments, schools, and police were consulted on multiple occasions regarding measures to handle traffic around the designated transit mall. After a series of preparations and administrative steps from February 2003, the design of Jungang Street transit mall was complete and construction started in February 2009. The transit mall began operation on December 1, 2009.

• Operation Status

The Jungang Street Transit Mall connects Daegu Station to Banwoldang totaling 1.05 km. A total of KRW 9.9 billion was invested with KRW 3 billion coming from the national budget and KRW 6.8 billion invested from the private sector. Neighboring streets of Jungang Street include Dongseong Road (pedestrian-exclusive road) and Yakryeong Street (Oriental medicine street). The four-lane vehicle road was reduced to become a two-lane and the speed limit was reduced from 60 km/h to 30 km/h. The street was designated as an exclusive public transportation zone and effective space was obtained to facilitate walking, thereby creating a pedestrian-friendly street. The sidewalk width was expanded from 3 meters to 12 and the number of crosswalks was increased from 3 to 10. Pedestrian convenience facilities, including public transportation shelters and guidance terminals were installed. After the creation of the exclusive zone, the Facilities Management Corporation was entrusted with facility operation from 2010.

• Analysis of Before and After Effects

The number of public transportation users increased by 3.82% and the

Figure 6.6 Daegu Jungang Street Transit Mall project implementation before and after

bus operation speed rose 5.4 km/h to 8.2 km/h. Additionally, the number of daytime pedestrians increased by 2,000 persons after the schemes' implementation (YOO Young-keun et al., 2010).

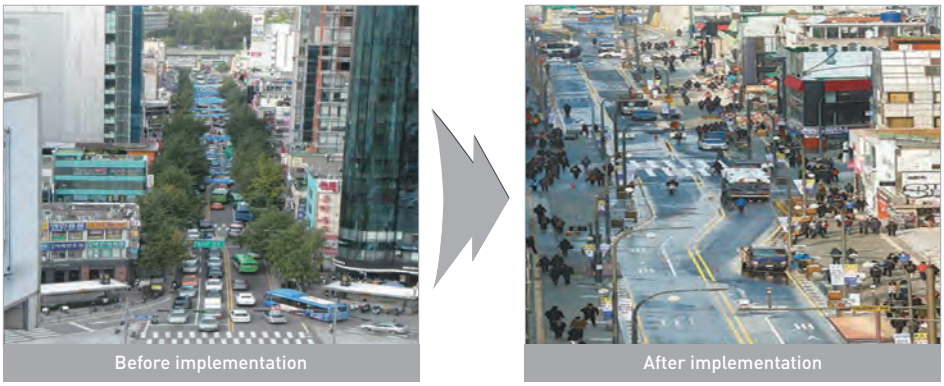
3. Transit Mall Schemes Implementation Status

Transit mall schemes have been developed or are under development in three locations in Korea: Jungang Street in Daegu, Yonsei Street in Seoul, and Dongcheon Street in Busan (Table 6.4).

Table 6.4 Transit mall implementation status

Locations	Opening	Major contents
Jungang Street, Daegu	Dec. 2009	• The concept was first generated in 2003, the design was drawn up in 2008, and construction started in December 2009. This is Korea's first case and took the longest time for implementation due to location selection among other factors • It improved the traffic situation at Jungang Street and revitalized neighboring commercial districts • An exclusive cultural district was created by increasing the number of culture performance halls and adding connections to nearby parks and Yangnyeong City
Yonsei Street, Seoul	Jan. 2014	• Promoting the revitalization of the region by forming a cultural street • Solidifying its position as Seoul's representative transit mall in aims towards becoming a 'pedestrian-friendly city' via the transition into pedestrian-exclusive district • Breaking away from government-led and pursuing the participation of the government-private
Dongcheon Street, Busan	First half of 2014	• Allowing only mass transportation (buses) during commuting hours (7 AM - 9 AM, 5 PM - 8 PM) • Creating an urban cultural street by creating a pleasant walking space that enables people to enjoy street events

Figure 6.7 Yonsei Transit Mall before and after



Before implementation

After implementation

Section 4

Green Parking Project

1. Overview

Green parking projects have been initiated since 2004 as schemes in which a local government provides the funding for parking space construction if a resident demolishes the walls or fence around their property and constructs parking spaces. Specifically, it involves demolishing the walls and constructing a house owner parking spaces and planting flowers and trees in the alleys, thereby transforming the residential street into a more welcoming space. Green parking eliminates the property walls on a straight two-way single lane road thus creating an S-shaped residential road due to the newly opened space. This widens the view for pedestrians and drivers and reduces vehicle speed, thus helping to prevent traffic accidents involving children or adults. Additionally, green space is obtained and with the physical openness residents have improved opportunities for meeting their neighbors thereby restoring a sense of community. Furthermore, within a short time, a house owner can construct his/her own parking spaces at a low cost. Another positive effect is the reduction of resident complaints thanks to their participation.

Under the policy directive that values people and the environment, green

parking recovers the residential district parking order and creates an eco-friendly living environment. The basic directions and core summary of green parking are explained as below Gwangju Jeonnam Development Institute, 2007. Green parking satisfies all aspects of transportability, safety, and an enhanced pleasant atmosphere for pedestrians.

- Residential streets should recover their original function in serving the daily needs of residents.
- Securing a parking space is the basic obligation of a vehicle owner and a vehicle shall not be parked in a location that disrupts the travel and lives of neighbors (aka blocking the street). Also, the minimum space for pedestrians shall be obtained for the purpose of the safe travel of children and senior citizens.
- To improve inadequate parking facilities, various measures shall be applied simultaneously, such as destruction of property fences, night-time opening of parking lots attached to buildings, or utilization of excess space.
- Street parking shall be discouraged as much as possible and unnecessary zoning shall be removed. Local residents shall participate in every phase of the design of their neighborhood and make practical decisions.

2. Best Practice Case: Seoul Green Parking Project

• Background

Seoul Green Parking Project aims to improve the quality of life by establishing advanced parking against the background of consistent worsening of residential environments due to the lack of parking spaces in these areas, the increased need for residents' voluntary participation, and the increase of accidents (Seoul Metropolitan City, 2006). In particular, both shoulders of roads in residential areas are frequently occupied by illegally parked vehicles due to parking space shortages. In some cases, neighbors have even ceased

communicating with each other because of frequent conflicts involving parking spaces. Overall, the function of providing quality living space has long gone away. Also, the lack of parking spaces in residential areas has led to not only inconvenience in parking and difficulty in communication, but also greater exposure of residents to the increased danger of traffic accidents. With implementation of the Green Parking Project, more parking spaces will be made available and the function of residential streets, focusing on the safety of pedestrians and resident activities, should be rehabilitated. The pedestrian environment should also be improved so that vulnerable road users including children, senior citizens, and disabled persons can be transported in a safe and convenient manner.

• Implementation Process

The Basic Plan for the Green Parking Project was established in July 2003 and thereafter implementation teams were set up in each local government. Geumcheon District was selected as the target location of the demonstration project and meeting sessions with residents were held to explain the project. In 2004 the scheme was executed in full swing. In 2005, the project was expanded to 25 local governments in Seoul covering both

Table 6.5 Major implementation progress of green parking projects

Dates	Contents	Notes
July 2003	Establishment of basic plan	
Sept. 2003	Composition of a task force team for each local government	
Aug. – Oct. 2003	Demonstration project: target location designation, resident explanatory hearings, public hearing	Geumcheon District Selected
Oct. 2003 – Apr. 2004	Demonstration project: development of basic and working designs	
Dec. 2012- Feb. 2004	Review of police regulations	
May 2004 – Dec. 2004	Destruction of property walls in residential districts of the demonstration project and construction of residential streets	
Aug. 2004 – Dec. 2004	Implementation of residential street maintenance construction	
Jan. – Dec. 2005	Business and other districts implemented	25 local governments
Jan. 2006 -Current	Expansion of projects to include alleys	

Source: Seoul Metropolitan City Transportation Department, Green Parking Team (http://greenparking.seoul.go.kr).

business and development zone projects. Problems arising from the projects' implementation were addressed. Starting from 2006, the projects were expanded to cover their application to alleys. The major implementation progress is summarized as in Table 6.5.

• Operation Status

Seoul financial assistance records show that single parking spaces received KRW 7 million and double parking spaces received KRW 8.5 million. With a single space addition the home owner shall be entitled to extra funding of KRW 1 million, at a maximum funding support of KRW 16.5 million. These are the basic principles and depending on the construction conditions a local government may establish a separate funding standard and accumulate financial resources if the aforementioned funding standard of Seoul city government is insufficient.

At apartments constructed prior to 1994, only a single parking space is available per apartment unit. Thus, they are included as a part of the financial assistance program in order to expand the support target. The funding standard is within 50% of the parking space construction expense and a maximum of KRW 700,000 is provided per single space and a maximum of KRW 50 million is provided per apartment building. However, the assistance target is for joint housing with no less than 20 family units and it is only applicable to the function change of parking spaces upon the consent of no less than two-thirds of the residents within 50 percent of the total space for resident-joint additional facility and welfare facility (resident fitness facility, roads within the complex, playground, landscaping facility, etc.).

• Achievement

The efforts to revive residential streets have brought meaningful changes, including an increase in satisfaction with the pedestrian environment. One of these positive changes is the pedestrian environment improvement effort including the Green Parking Villages, which were introduced in 2004 to resolve the lack of sufficient parking spaces and improve the residential

environment. As of September 2011 a total of 41,752 spaces were created.

The achievements of green parking projects were found to be significant in terms of socioeconomic, policy and community aspects. From the socio-economical perspective, considering that sites are not easily found for the

Figure 6.8 Seoul Green Parking Project implementation before and after

construction of public parking lots and the construction of single parking spaces costs no less than KRW 50 million, it has the advantage of creating parking spaces in large volume at a reasonable cost within a short period of time. From the policy perspective, the parking order of business districts and pedestrian safety shall be obtained and the residential district living environment improved, thereby making these environments more pleasant. It has also changed the perspective of motor vehicle owners into build their own parking spots and recovering community spirit with improved cooperation among neighbors.

In 2011, according to the public opinion survey conducted by MRC Korea with 500 people, 83.8 percent of respondents said they are satisfied with green parking (32.2 percent very satisfied, 51.6 percent satisfied , significantly higher than the 13.6 percent o-so and 2.6 percent dissatisfied (1.4 percent dissatisfied, 1.2 percent very dissatisfied (MRC Korea, 2011). As for the essential expected effects of green parking, 68.6 percent of the respondents replied "parking problems in residential districts have been relieved as individual parking spaces have been secured, 13.6 percent selected "the residential district living environment is improved due to the installation of landscaping facilities, etc., while 10.8 percent said "expanded friendly exchanges with neighbors," and 3.6 percent picked "resolved traffic accident concerns due to the construction of residential streets in alleys."

On the other hand, 20 percent of single housing, multi-family housing, townhouses, and multi-unit housing are located in the re-development and re-construction business district. As a result, the residents are reluctant to participate as they expect development of the area.

Section 5

Pedestrian Environment Improvement Construction Projects

1. Overview

Pedestrian environment improvement districts are designated in order to create a pedestrian-friendly, safe, and pleasant walking space by discouraging large vehicle volume. It shows due concern for the vulnerable road users of society, eliminating walking danger factors, and forming the environment and landscape that are distinctive for each district. These districts have the purpose of promoting pedestrian-friendly, safe, and pleasant walking spaces by discouraging large vehicle volume, giving due concern to the transportation marginalized, eliminating walking danger factors, and forming an environment and landscape that are distinctive for each district.

In order to fundamentally secure pedestrian rights, a pedestrian environment improvement district has the basic goals of safety, transport convenience, accessibility, convenience, comfort, and identity. The specific contents are summarized in Table 6.6.

Depending on basic goal and pedestrian environment characteristics, the pedestrian environment improvement district shall be classified into the following six types (Table 6.7): personal safety district, walking district, farming and fishery

Table 6.6 Basic goals and concepts of pedestrian environment improvement districts

Basic goals	Concepts
Safety	• A pedestrian can walk down the street while his/her life and are protected from the danger of traffic accidents or crime
Transport convenience	• A pedestrian convenience increases as he/she does not encounter obstacles in the walking space
Accessibility	• A pedestrian can feel the distance to the destination is diminished depending on the path selected
Convenience	• A pedestrian feels comfortable thanks to installed convenient facilities
Comfort	• A pedestrian feels comfort in the cleanliness of the walking environment
Identity	• A pedestrian can readily identify the walking space

Source: Pedestrian Work Handbook, Ministry of Security and Public Administration (2013).

Table 6.7 Classification of pedestrian environment improvement district types

District type	Definition
Personal safety	District with the main aim of guaranteeing pedestrian safety of residents and securing walking space as it is where daily activities of residents occur (walking to school, commuting, playing, etc.)
Walking	District with the primary aim of improving walking convenience as it is a frequent and repetitive passage for pedestrians
Farming and fishery centered	District with the primary purpose of securing fundamental rights of pedestrians as it suffered from poor walking conditions with regard to safety, convenience, or comfort, etc.
Transportation marginal class	District that desperately requires system and facility installation for the transportation marginal classes
Public transportation	District with the main purpose of pedestrian trip improvement and convenience enhancement for connection with other transportation methods
Traditional culture	District aimed at improving aesthetics and comfort to strengthen regional characteristics

Source: Walking Work Handbook, Ministry of Security and Public Administration (2013).

centered district, transportation marginal class district, public transportation district, and traditional culture district. Speed and trip restriction techniques shall be applied per district type and the relevant improvement measures shall be established and implemented. The existing line unit evaluation and planning system shall be changed into the area-unit evaluation system, thereby establishing a review system enabling consistent maintenance and management system. Specifically, in order to analyze the effects of the Pedestrian Environment Improvement Project and present improvement directions of future schemes, a comparison analysis of before and after, B/C analysis, resident satisfaction survey, etc., shall be conducted and the annual maintenance status shall be reviewed and

it shall be adjusted if necessary.

Demonstration Pedestrian Environment Improvement Projects, which have been implemented from 2013, have transformed the target zones chosen from the existing line and equal distribution into the concept of district and public contest.

2. Implementation Status of Pedestrian Environment Improvement Projects

Pedestrian Environment Improvement Projects have been conducted in various parts of the country, including Itaewon in Seoul. Table 6.8 summarizes the most representative examples.

Table 6.8 Implementation status of Pedestrian Environment Improvement Projects

Name of scheme	Location	Major contents
School Children Walking Environment Improvement	Seongbuk, Seoul	• Re-organizing children protection zones, such as Seongbuk Elementary School, for the safety of students • Reducing the number of pedestrian accidents and creating a base for the revitalization of walking culture with strong enforcement against illegal parking and illegal stopping while also improving the environment
Itaewon Foreign Tourism District Walking Environment Improvement	Yongsan, Seoul	• Dramatic increase of local/foreign visitors to Itaewon Tourism District with closely-packed restaurants • Promoting the revitalization of commercial districts with the designation of "car-free street"
Jungang Commercial Center and Traditional Market Walking Environment Improvement	Seosan, Chungnam	• Inconvenience to pedestrians due to high volume of walking within traditional market and illegal parking and stopping • Integrating the work of designating one-way street and securing parking space • Revitalizing traditional markets with the prevention of illegal parking and stopping
Nearby Apartment Area Walking Environment Improvement	Chungju, Cheongbuk	• Encouraging the revitalization of walking by creating pedestrian-friendly environments in areas nearby apartments including street diet and S-shaped street construction
Tamna Culture Tourism District Walking Environment Improvement	Jeju	• Securing sufficient sidewalk width with consideration towards walking accessibility at Dongmun Market, Jungang Underground Commerce Center, and Jeju Outer Port • Promoting the local economy revitalization by improving the environment in connection with commercial districts
Old Downtown Revitalization Walking Environment Improvement	Namwon, Jeonbuk	• Promoting local economy revitalization with improvement of walking environment at nearby traditional markets • Attracting tourists by forming a culture and art street in connection with other schemes (culture street, tasty avenue, etc.)

Figure 6.9 Pedestrian Environment Improvement Project before and after in Itaewon, Seoul

Before implementation | After implementation

Figure 6.10 Pedestrian Environment Improvement Project before and after in Seongbukdong Street, Seoul

Before implementation | After implementation

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Chapter 07

From Right to Culture

LIM Sam-jin
Former Research Consultant,
The Korea Transport Institute

Section 1

Jeju Island Olle Trail, Creation of a New Culture of Slow

The seed of pedestrian rights was planted with the Pedestrian Declaration of Right in 1993. It has become part of the island's culture going beyond a mere right. Jeju Olle, which sparked walking fever in Korea in 2007, opened a new chapter of walking culture in line with the current trend that emphasizes harmony between people and environment, local society and slowness, and value on reflection.

Jeju Olle is the outcome of several residents, including Chairman SEO Myung-sook, with their own opinions and views after reflecting on the future of Jeju Island, communication, and the aesthetics of being slow. At that time, it was a small beginning and no one expected a massive nationwide phenomenon, which it actually became. Margaret Mead once said, "Never doubt that a small group of thoughtful, committed residents can change the world. In fact, it is the only thing that ever has."

The name Jeju Olle has several implications. The meaning and photos of Jeju Olle are provided by their homepage <www.JejuOlle.org> are as follows.

1. Jeju Olle Trail for Those Who Walk and Hike

Jeju Olle is for travelers who walk and hike around Jeju. It was decided that the trail should be reserved only for travelers without time restrictions. Jeju Olle was created by connecting disconnected roads, finding forgotten trails, and reviving lost paths. Automobile travel can be described as travel stopping at sparse dots on a map whereas Jeju Olle is a continuous long-distance trip connecting dots. Thus, with Jeju Olle, one can find the real Jeju that can never be found in car travel. The Jeju Olle trail covers the entire island in a continuous circle allowing travelers to fully experience the hidden beautiful scenery scattered in mountainous areas and small island attractions.

Figure 7.1 Jeju Olle Trail

2. Open to the World

"Olle" is a word in the local Jeju dialect, meaning a very narrow alley that

Figure 7.2 Aesthetics of Jeju stone walkways along Jeju Olle Trail

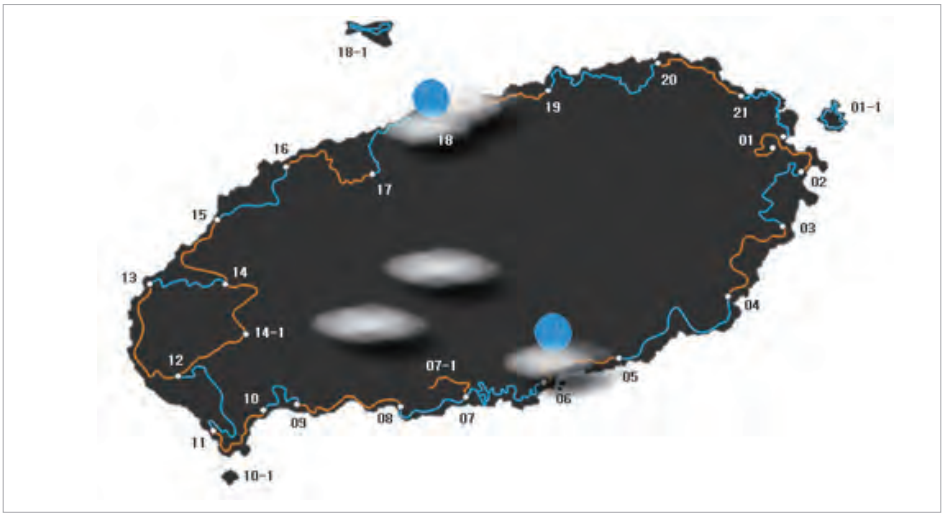
connects the front door of a home to the village road. It is widely viewed that the ancient language "Olla" or "Olrae" and the pure Korean word "Orae" with the meaning of a door have solidified as "Olle" in Jeju. Olle is a unique culture existing only in Jeju. An Olle alley, leading to the house built of black basalt, is a road that connects a home with a village or individual with the world. It also demonstrates the aesthetics of twisting Jeju stonewall alleys. Jeju Olle naturally shows the unique culture and scenery of Jeju, connecting Jeju to the outside world. Jeju Olle also has the meaning of an invitation as in "Will you come to Jeju?"

3. Beautiful and Peaceful Trail

Jeju Olle is Korea's most beautiful and peaceful trail with breath-taking views of the ocean, volcanic cones, stonewalls, Gotjawal Forest, ever-green fields, and peaceful villages. Jeju Olle is open to everyone. Hikers can clear their

Figure 7.3 A walker on Jeju Olle Trail

Figure 7.4 Jeju Island's 26 Olle trails



minds and relieve themselves from stress.

As such, Jeju Olle is where one can engage in personal reflection and discover every corner of Jeju while slowly walking the trails of Jeju; a

unique and beautiful island. The first route on Jeju Olle Trail originally opened in September 2007: Siheung ~ Malmi Oreum ~ Jongdalri Salt Field ~ Gwangchige Beach of Seogwipo (15.6 km). The 21st and final route opened September 15, 2012 connecting Jeju Haenyeo Museum, the last leg of the 20th route, and Siheung Elementary School of Seongsan in Seogwipo City, the starting point of the 1st route (18 km). As a result Jeju Olle Trail contains 26 routes covering 430 km; 21 regular routes and five side routes on islands and mountainous areas.

Hikers on Jeju Olle can obtain a hiking passport and stamps for the areas they trek. The Olle passport, the same size as a standard passport, has route pages reserved for completion stamps, memo pages, transportation information, and so forth. A passport holder receives a different stamp at the three locations on each course; beginning, middle, and end. Anyone who receives no less than two stamps is deemed as having finished the relevant route. The stamp is an image embodying the characteristics of the applicable route.

Jeju Olle was visited by 30,000 people in 2008 and increased to 1.09 million in 2011. It has become the representative attraction of Jeju's ecosystem and hiking tours. Jeju Olle has contributed to the fundamental transformation of the tourism culture and created a new leisure culture in which most tourists use public transportation, communicate with nature, and engage in friendly exchange with local society, thereby remaking Jeju Island as the center of ecological green tourism.

Despite its humble beginnings, Jeju Olle has brought remarkable changes to the overall tourism culture in Korea. The report SERI Forecast 2010 released by Samsung Economic Research Institute shows an analysis on the increase of personal reflection-type leisure activities, such as hiking tours, as an important trend. It evaluates the cultural phenomenon created by Jeju Olle as follows: since Jeju Olle Trail has attracted public interest, the demand on hiking tours has increased which gave rise to the creation of trails nationwide. The wide popularity of Jeju Olle Trail is easily seen by looking at the dramatic increase of contents related to Olle Trail in internet blogs

Figure 7.5 Jeju Olle stamps

and mass development of tour routes with similar concepts by other local governments. Psychologically this phenomenon can be explained as many people can feel the nature and experience history and culture by walking leisurely, which they cannot do in their busy lives. This trend was expected to

expand even further in 2010 (Samsung Economic Research Institute, 2009).

Jeju Olle Trail has led the trend in hiking tourism and started the nationwide fever for forming hiking tour trails. Examples include Jirisan Dulle Trail, Ganghwado Olle Trail, Daegu Palgong Olle Trail, Ulsan Dulle Trail, Jeongseon Arirang Traditional Trail, and Seoul Seonggwak Trail. In February 2012, an "Olle" was formed in Kyushu Island, Japan in exchange for the name use of 'Olle' and route development support.

Section 2

Nationwide Hiking Trail Development Boom

The huge popularity of Jeju Olle Trail, along with Jirisan Dulle Trail, which was formed around the same time, has prompted local governments to create various 'walking trails.' Even now such trails are continuing to be constructed. Boosted by a social environment that values health, hiking fever has led to a nationwide Hiking Trail Creation Project.

The nationwide Hiking Trail Creation Project includes the Greenbelt Nuri Trail Project executed by the Ministry of Land, Transport, and Maritime Affairs. Work was started with KRW 4.2 billion funding support with designation of ten projects in 2010 and has spread to 30 locations as of 2012. Nuri Beach Trail Project by the Ministry of Land, Infrastructure and Transport selected nationwide beaches in a U-type formation. It has chosen 52 beaches covering 505.1 km with beautiful scenery and an abundance of tourism resources. Among these the Nuri Beach Trail, Byeonsan Masil Trail of Buan County in Jeonbuk Province, Saemangeum Seawall, and Naesosa Temple Forest Trail have been developed as tourism locals in collaboration with KORAIL. Green Scenery Trail covers eight famous spots in South Korea with development led by the Ministry of Land, Infrastructure and Transport. It totals 330 km connecting six famous seaside spots on the east coast from

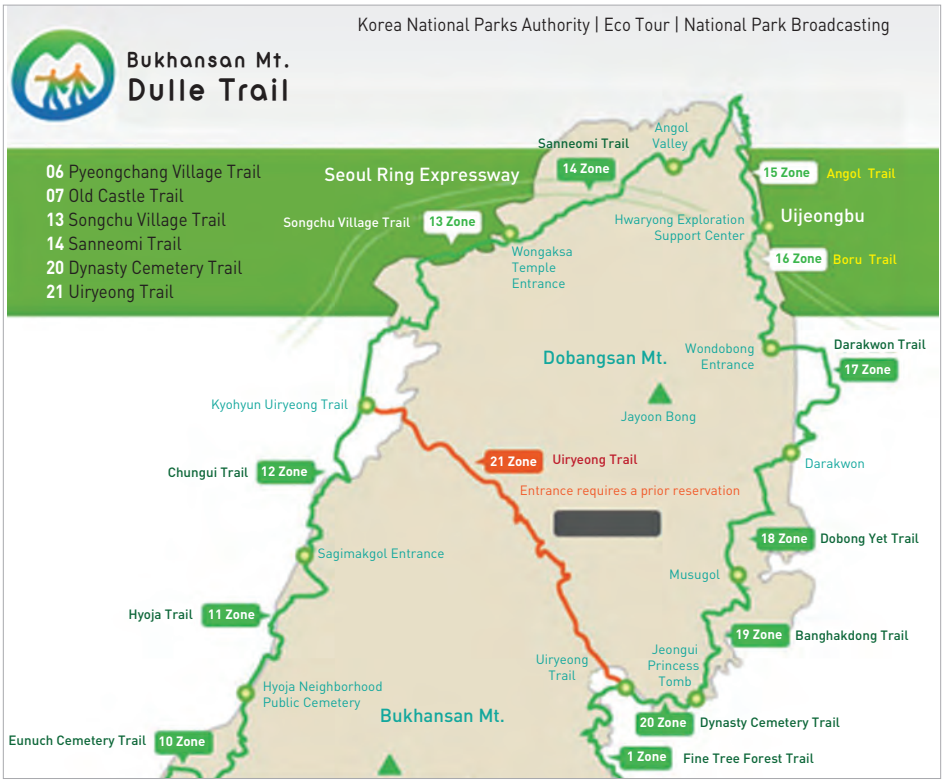
Daejin Lighthouse, Goseong Gangwon Province to Wolsongjeong Pavilion in Ulgin County.

Ecological Culture Exploration Trail Project was executed by Ministry of Environment in 2008 in the form of step-by-step development and has led to 49 locations as of 2012. According to the National Ecological Culture Exploration Trail Guidelines, trails are classified into two types: national and regional. The trails are also divided into three zones: core, spreading, and buffer, and each zone has different facility installation standards. The construction of trails is subject to annual monitoring and relevant results are published in an official report.

In addition, the Korea Forest Service has executed the Forest Trail Construction Project, which distinct purpose is for trail formation in national forests. The best examples are Jirisan Forest Trail and Geumgang Pine Tree Forest Trail. Korea Forest Service publishes operation outcome results on an annual basis and conducts a demand and satisfaction survey with respect to visitors. In order to establish policy directions for trail operation, a government-private sector cooperation system has been established, i.e., the holding of a regular committee meeting whose participants include experts, parties concerned with operation, and residents.

As such, these kinds of hiking trail construction project have positive aspects, for instance dissemination of hiking culture. However, as pointed out in the Fact-Finding Report on Nationwide Hiking Trails by Green Korea United in 2012, it is not without problems. Some examples include the indiscriminate creation of trails by national government departments and local governments and the loss of value of "ecosystem preservation and communication with local community" due to excessive competition and administration for the sake of being 'the first' and exhibition. Also, in most cases only local governments are responsible for post-management and operation. Thus, many critics point out that there should be efforts to revive the value of "harmony between people and nature" which translates to minimizing environmental damage on nature and encouraging voluntary participation of local community and users.

Figure 7.6 Bukhan Mountain's Dulle Trail



In spite of these weaknesses a virtuous cycle has been created: national and local governments construct trails in response to the popular hiking fever, which, in turn, promotes the hiking of the public. Representative cases include Bukhansan Mountain Dulle Trail covering 71.5 km and Seoul Seonggwak Trail among the 21 trails in Seoul and its neighboring areas.

The emergence of hiking culture has led to the development of relevant software including the Trail of the Month recommendation by the Korea Tourist Service. From May 2014 the service has recommended ten tourism courses with the suggestion "Let's walk the nearby trail with family and heal our tired body and soul while our children can see history as well."

Furthermore, in October 2013 Ministry of Culture, Sports and Tourism opened the website Korea Trails containing information on hiking-friendly trails across the country (www.koreatrails.or.kr). The site provides

Figure 7.7 Guide map for Seoul City Wall

information on 1,300 courses on 515 trails nationwide. This site was created in collaboration of the Ministry of Culture, Sports and Tourism which played a central role, Ministry of Safety and Public Administration, Ministry of Land, Infrastructure and Transport, Ministry of Environment, Ministry of Maritime Affairs and Fisheries, and Korea Forest Service. The site has gained much interest among users.

Figure 7.8 Korea Trails website

Korea Trails, www.koreatrails.or.kr

Section 3

Safer and More Convenient City for Pedestrians

Since the civic movement that asserts pedestrian rights started in 1993, multi-faceted efforts have been made for the purpose of securing the pedestrian rights and promoting green transportation. As demonstrated above, there has been continuous progress in order to solidify pedestrian rights and diverse legal systems have been improved in parallel.

However, in Korea there are still a significant number of traffic accidents involving pedestrians. The total number of traffic accident deaths has been decreasing whereas that of traffic accidents involving pedestrians has yet to change. In 2012, 37.6% of traffic accident deaths were of pedestrians; more than two times than the OECD member countries' average of 17.8%. In order to rectify the situation, Ministry of Safety and Public Administration formulated the People-Centered Walking Safety Strengthening Policy in 2011 for the purpose of reducing pedestrian deaths in proportion with total traffic accidents deaths. The policy has three major strategies: creating safe and pedestrian-friendly walking environments in residential areas, establishing walking safety priority management for the marginal classes of transportation culture (children and senior citizens), and strengthening supervision over walking safety hazards and disseminating walking culture.

The first strategy of creating a safe and pedestrian-friendly walking environment in residential areas is to cultivate pedestrian environment improvement trial districts in residential areas with a large number of pedestrians and a high danger of accidents. This enhances the level of pedestrian environment improvement projects, which used to be executed in the form of piecemeal facility improvement projects such as separation of sidewalk and road, connection of discontinuous pedestrian zones, or replacement of sidewalks. Pedestrian environments should be comprehensively repaired with designation of pedestrian environment improvement districts in accordance with regional characteristics of residential, commercial, and traditional culture including sidewalk expansion, illegal street furniture repair, parking facility establishment, designation of residential-restricted zones, and partial vehicle passage restriction. Also, project types have changed from equal support to focused investment via public contest by taking into account regional fairness, thereby creating and expanding visible success models. Ten and eleven districts were selected in 2013 and 2014, respectively, for the improvement of pedestrian environments. In the future, at least one district will be enhanced for nationwide units of city, county and district. In addition, farming and fishery regions as chosen by the frequency of traffic accidents. Safety facilities will be improved in a consistent manner, such as separation of sidewalk and road, road-widening, crosswalk lighting facility, etc.

For the second strategy of establishing walking safety priority management for marginal classes of transportation culture (children and senior citizens), safety facilities shall be installed in accident prone children zones. Joint government-private investigation will analyze zones in which at least two traffic accidents or one death have occurred and install customized safety facilities. In addition, in collaboration with a school zone, the sidewalk and road shall be separated or sidewalks shall be newly constructed. Also, facilities in senior citizen zones shall receive national funding. In those zones, considering the characteristics of senior citizens, the frequency of crosswalk green lights shall be lengthened, devices shall be installed that show remaining time for the traffic signal, and rest space such as chairs, shall be set up, thereby expanding the

pedestrian-friendly facilities for senior citizens. For the protection of children, illegal parking and stopping shall be subject to intensive regulation enforcement activities, and when children come to school and go back home, walking safety guidance instructors shall guide the younger students in elementary schools to walk safely and reinforce traffic safety training.

In residential and commercial districts in which the maximum speed is high at 60 km/h to 80 km/h, the highest speed in downtown areas shall be reduced so as to secure pedestrian safety. Also, the comprehensive management of the areas nearby schools including school zones, food safety protection zones, school environment and sanitation zones, and juvenile protection zones have been reviewed for a government-wide implementation. In this year, demonstration projects for six regions are in the works. The application of a 30 km/h speed limit and additional penalties for violations of the comprehensive student safety zone (school zone) has been under review.

The third strategy is to strengthen supervision over walking safety hazard factors and disseminate a walking culture. In order to strengthen enforcement against illegal parking, accident prone areas among existing parking restricted areas shall be designated as illegal parking special enforcement zones. Trial zones shall be selected and operated and depending on the results system implementation might be expanded. Also, in order to disseminate the new paradigm of pedestrian priority traffic culture across society, the Nationwide Pedestrian Safety Network shall be set up. This government-private cooperation shall be established in the form of establishing and operating expert forums on pedestrian safety, customized pedestrian safety education per age and target shall be expanded and strengthened, and pedestrian safety research institutes shall be promoted while relevant technology development shall be encouraged. The government-wide policy shall be implemented with participation of various national departments for city-planning, road construction and operation, environment, and health and welfare. Diverse pan-government cooperative measures shall be explored consistently and coordination with local governments shall continue as well.

The newly enacted Pedestrian Safety and Convenience Enhancement

Act is the world's first national legislation concerning pedestrian safety. The enactment of a pedestrian law should serve as an opportunity for improving pedestrian rights and enhancing traffic safety. The tasks designed to realize this goal are written below.

First, various pedestrian environment improvement projects which have been executed in the form of either demonstration or symbolic projects should be expanded nationwide. The convenience and safety of every residential community district, including boulevards and residential back roads, should be enhanced. In particular, boulevards serve a wide variety of functions depending on the road width or function, land use status or relationship with neighboring areas. Therefore, road width and land use status (for instance, single residence/single + neighborhood commercial district/multiplex + neighborhood commercial district/single + multiplex + neighborhood commercial district + roadside commercial district, etc.) shall be classified. Then, the priority policy task for living boulevard traffic safety, such as community/parking restriction/passage restriction/speed regulation, for the relevant area shall be determined.

Second, pedestrian traffic accidents can be greatly reduced by strengthening overall safety regulations on boulevards with centering on speed management. The zone 30 system, which has proven to be greatly effective in improving traffic safety of boulevards and residential districts and reducing pedestrian traffic accidents was adopted in Europe decades ago. This calls attention to the importance of establishing a nationwide speed management system. In order to enhance pedestrian rights and pedestrian safety, there should be proper control with respect to automobiles and this control should not be centered on the installation of traffic safety facilities, but it should pursue superb amenity, put consideration on aesthetics, and focus on creating green living spaces. One should break from the facility-centered policy and realize that constructing community vegetable gardens, parks or playgrounds for children can lead to more productive outcomes. In short, the pedestrian environment improvement movement should get rid of the fixed idea of solely traffic facility installment and instead be expanded to

include more complex functions.

Third, pro-active efforts should be made in order to make symbolic roads into pedestrian exclusive spaces. The vitality of a city is largely dependent on how pleasant and convenient the city space can be for people to live and stay. Urban renewal and economy revitalization should be implemented along with traffic changes, particularly a dramatic improvement of pedestrian environment and the establishment of pedestrian exclusive space in downtown areas serve as a symbol of such change. To revive the economies of small regional cities, the downtown boulevards of the commercial districts and local economies should be revitalized by improving public access through creating more easily accessible and pleasant pedestrian environments, connecting traffic networks, and forming specialized regional commercial districts. On the other hand, in order to revitalize declining commercial districts, multi-faceted efforts are needed to revive older downtown areas and central boulevards. In order to support the recovery of vanishing central areas, campaigns need to be integrated with promotion of traditional markets, development of core tourism

Figure 7.9 Pedestrian priority road in Berlin, Germany

resources, and linking with traffic networks. In particular the Special Act on the Promotion of Urban Renewal and Support enacted in June 2013 should be utilized in order to make urban areas more attractive and active.

Fourth, the agendas of pedestrian environment improvement and recovery of pedestrian rights can produce the most effective outcomes when they are implemented via mutual cooperation governance between the government and private sectors. In this context, various conflict resolution methods shall be applied in order to develop and apply alternatives. Specifically, residents should be informed of the contents and directions of the process of pedestrian environment improvements. For instance, awareness that pedestrians will have priority in boulevards should be firmed ingrained in the minds of residents. Residents tend to put priority on their problems, so a misguided habit, such as street parking in front of one's house, is extremely hard to be overcome. Thus, they should be provided with a desire to change these habits and relevant contents should be notified to residents via diverse methods, such as education, public relations, visitations, surveys, consultations, etc.

Figure 7.10 In Leeds, UK, the focus of the local economy is the pedestrian exclusive space

Through such processes, public awareness regarding pedestrian environment improvement and pedestrian rights will be promoted.

Fifth, pedestrian traffic accidents should be analyzed and a map focusing on traffic accidents in school zones should be created. In order to investigate the reasons of prior pedestrian traffic accidents and come up with effective safety measures, the traffic accident data should be utilized. Pedestrian environment improvement plans created in line with regional characteristics should be based upon the pedestrian traffic accident map derived from relevant data over the previous five years. Basing implementation of pedestrian environment improvement projects and traffic safety projects upon such data will maximize the effectiveness.

Sixth, government support for the implementation of pedestrian-related projects should be increased. The general support pattern indicates that pedestrian environment improvement projects are likely to receive 1:1 matching funds from national and local governments. However, given the financial circumstances of local governments, the current level of support is insufficient for active implementation of pedestrian environment improvement projects. Given that pedestrian environment improvement is an important alternative designated to enhance the quality of life, national government support should be expanded in the beginning, even if it will lead to a focused selection method rather than uniform project implementation, so as to provide a more active growth engine for these projects.

We have to respect the public's choices of pedestrian priority and green traffic. Pedestrian experience should be pleasant and any inconvenience and danger pedestrians may feel in sidewalks or crosswalks should be minimized. Sidewalks best suited for walking should be expanded citywide and boulevards in residential districts with motor vehicles present should be transformed at the fundamental level. In order to firmly establish pedestrian-centered green traffic, the legal system should be changed and a dramatic transformation should be conducted concerning budget allocation, updating administration systems, understanding held by traffic operators and administrators, and improvement of civic awareness.

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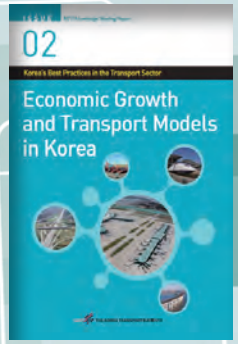

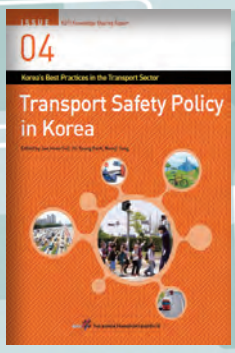

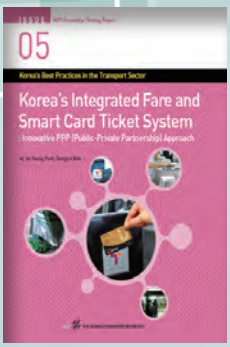

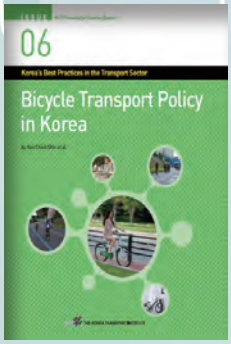

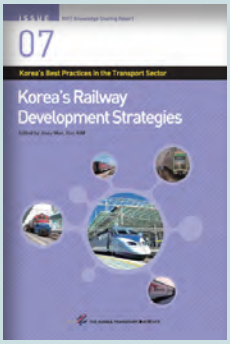

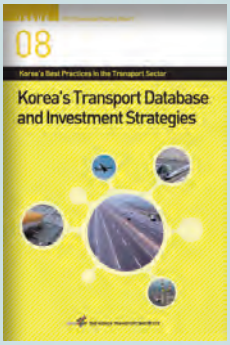

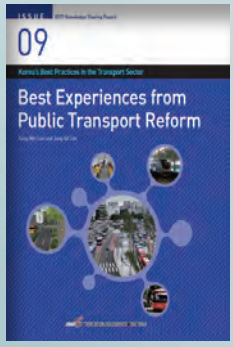

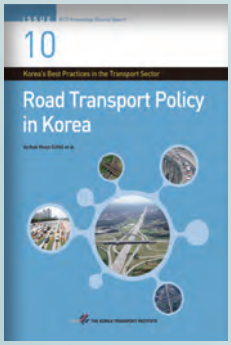

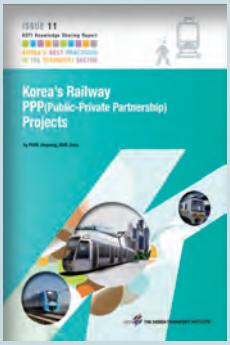

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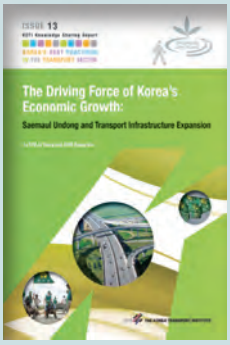

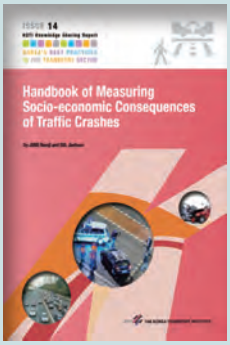

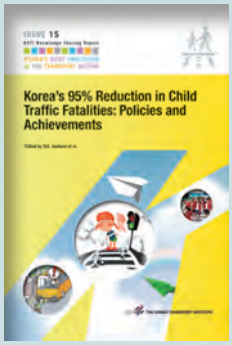

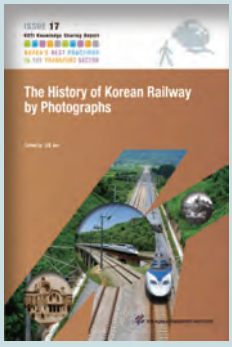

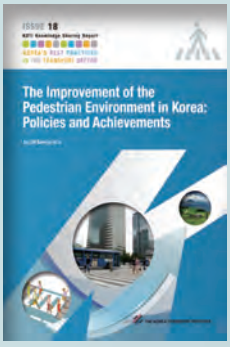

The Improvement of the Pedestrian Environment in Korea: Policies and Achievements

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