

# 3. Urbanization and its Impact on Seoul, Korea

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## I. INTRODUCTION

Seoul, the capital of Korea, has been a central city of the nation over 600 years, since being selected as the capital by the Chosun Dynasty in 1394. Although the first local settlement was established in the Neolithic period, and the present city site was regarded as a very important site to occupy the Korean peninsula during the Three Kingdom period, Seoul did not become a central city for political, economic, social and cultural purposes until the late 14<sup>th</sup> century.

During the Chosun Dynasty, Seoul changed little. Only in the late 19<sup>th</sup> century after opening to the world, did the city adopt modern technology and begin to be transformed vertically and horizontally. The built-up area expanded beyond the city walls during the Japanese occupation period, but the urbanization was not started in the modern sense.

With the economic development in the late 1960s, the population of Seoul increased, and rapid urbanization and changes of infrastructure occurred. This remarkable transformation created many infrastructure problems affecting the everyday lives of the citizens. Therefore, the government devised and implemented various decentralisation policies

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and programs during the last 20 years.

The city government plans for a better environment for the citizens of Seoul are striving for balanced development. This contribution examines the past and present situations in Seoul and discusses its plans for a more sustainable environment.

## **II. GROWTH AND TRANSITION OF SEOUL**

### **1. The Influx of People to Seoul**

The historical background of Seoul as a capital and central city of Korea for over 600 years reveals a record of national primacy in all quality and quantity aspects. The city of Seoul did not grow much during the Chosun Dynasty (1392-1910), because the major part of city was perceived as the old Seoul (*Hansung*) (within the walls) among Koreans. The wall constrained element both the spatial expansion of the city and separated the “persons in capital” people who lived inside the wall from those outside the wall. Therefore, Seoul retained primacy in the nation and most part of the area outside the wall, except near the Gate to the city, remained the open space.

Since the city of Seoul began to experience modernization in the late 19<sup>th</sup> century, the spatial structure of land use changed in the first half of the 20<sup>th</sup> century. The Japanese occupation (1910-1945) and the Korean War (1950-1953) disrupted the traditional society and destroyed the infrastructure of the city and the spatial arrangement. After the emancipation from Japan, people from abroad returned to Korea and large numbers of returned people stayed in Seoul rather their hometowns. This fact led to the rapid growth of Seoul's residents.

As a result of these trends, 8.4% of the total population of Korea, excluding people living in the present North Korea, resided in Seoul with primacy index of 1.37 in 1949 (Table 1). However, the Korean War decreased the total population of Seoul, with the primacy index of 0.85. The high population growth rate of 55.3% between 1955 and 1960 occurred mainly because evacuated persons returned to Seoul after the war and refugees from North Korea remained in Seoul.

Just before the first five-year economic development plan was started, Seoul was half the size of the present city area and the population was 23.7% of that of 1999 (Table 1). With the accomplishment of the five-year economic development plans emphasizing secondary industry, the economic structure, the distribution of population and migration from

rural areas to urban areas in Korea changed, influencing the population of Seoul. Population growth of 59.2% from 1966 to 1970 gave a primacy index of 1.53 in 1970 (Table 1). Since then, the growth rate of population decreased, although the percentage of Koreans living in Seoul increased gradually till 1990.

**Table 1 Changing Population in Seoul (1949-1999)**

	Population in Korea (A) (persons)	Urban Population (%)	Population in Seoul (B) (persons)	Growth Rate (%)	(B)/(A) (%)	Davis Primacy Index
1949*	20,188,641	-	1,693,224	-	8.4	1.37
1955	21,526,374	28.5	1,574,868	- 7.0	7.3	0.85
1960	24,989,241	29.1	2,445,402	55.3	9.8	1.09
1966**	28,181,096	28.8	3,470,880	41.9	12.3	1.36
1970	31,465,654	41.2	5,525,262	59.2	17.6	1.53
1975	34,706,620	48.4	6,889,502	24.7	19.8	1.51
1980	37,436,315	57.3	8,364,379	21.4	22.3	1.43
1985	40,448,486	65.4	9,645,932	15.3	23.8	1.39
1990	43,410,899	74.4	10,612,577	10.0	24.4	1.35
1995	44,606,199	85.7	10,231,217	- 3.6	22.9	1.21
1999	47,542,573	88.3	10,321,449	0.9	21.7	1.16

\* The data of 1950 were not available in the statistical yearbook, because of the Korean War(1950-1953). So the data for 1949 were used instead.

\*\* The detailed data for 1965 was only estimated data in the statistical yearbook. So the data for 1966 were used instead.

Source: National Bureau of Statistics Economic Planning Board Republic of Korea, 1970 & 1997, *Korea Statistical Yearbook*; Seoul Metropolitan Government, 2000, *Seoul Statistical Yearbook*.

By 1985, 65.4% of Koreans lived in urbanized areas. Seoul had 9.6million people, 23.8% of total population, and had become a giant metropolis. This population growth in Seoul created socio-economic changes in the city. The remarkable economic development and urban expansion brought many disadvantages and problems for urban life.

The city government has implemented various decentralization policies and programs to counteract the persistent and relentless concentration of population and economic activities into Seoul. New towns near Seoul were constructed and tax deductions granted for people and businesses moving from Seoul to the new towns or other areas in Kyonggi province.

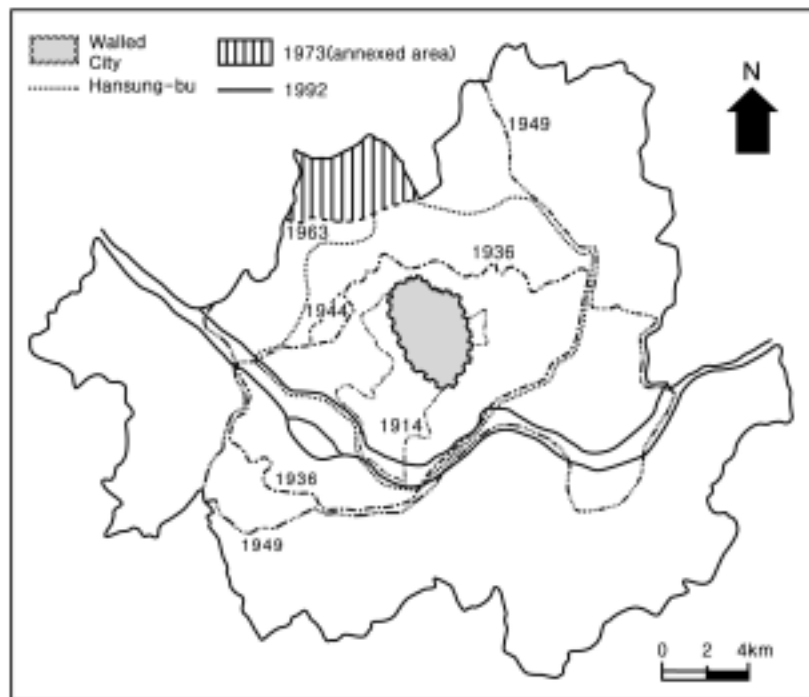
As a result, a marked slow-down in in-migration into Seoul was followed by on-set of out-migration to outlying suburban areas. The population of Seoul decreased by 381,360 with a -3.6% growth rate from 1990 to 1995. Seoul's population increased from 1995 to 1999 with a

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growth rate of 0.9%. By 1999, Korea had an urbanization rate of 88.3% and 10,321,449 inhabitants (21.7% of the total population) living in Seoul (Table 1).

**2. Changes of Spatial Structure in Seoul**

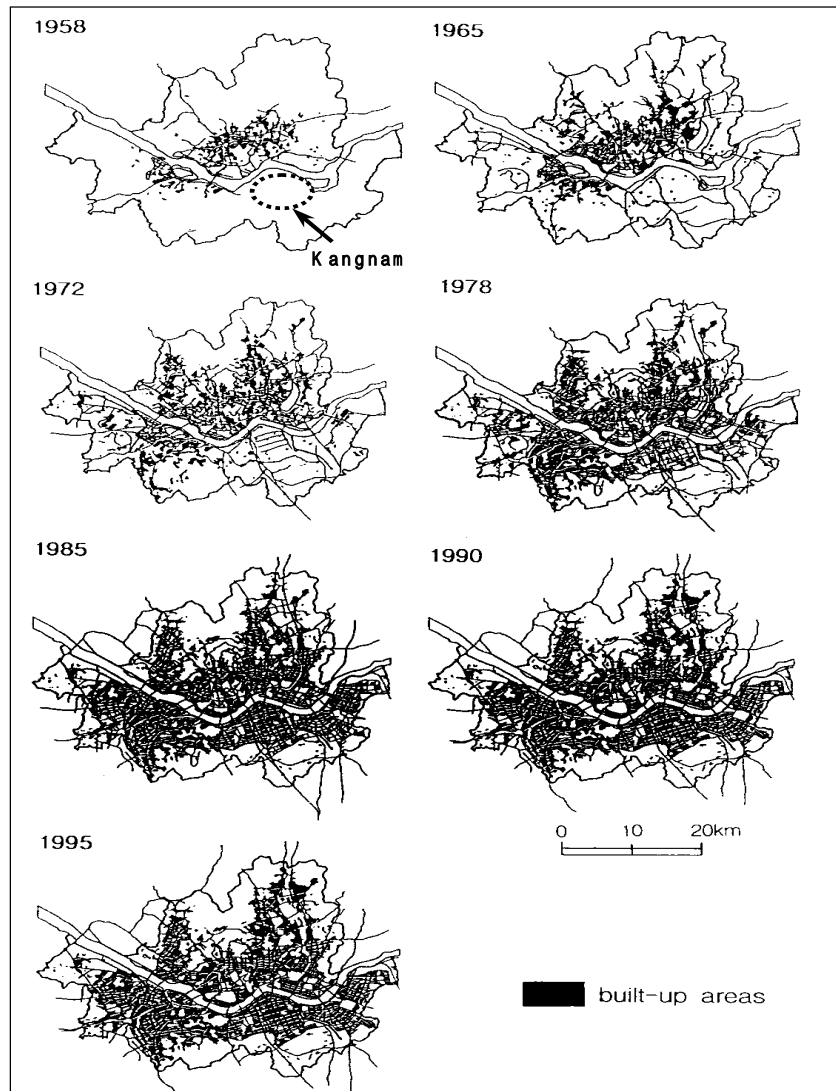
Seoul has been greatly expanded in physical terms (Figure 1). Beyond



**Figure 1 Seoul, showing the walled city and boundary changes**

Source: Rii, 1997b, 'Foreign Influences Upon the Townscape of Seoul, Korea,' in Shaw, Brian J., and R. Jones, eds., *Contested Urban Heritage: Voices from the Periphery*, p. 158.

the old walled city, most annexed areas were former rural areas easily converted to urban uses such as well-set out streets, parks and home sites, schools and hospitals. The channel of Han River changed with the development of new residential areas. Once urbanization started in Seoul, the built up area mainly expanded to the north and to the southwest of the city in 1960s (Figure 2). The southeastern part of the city, so-called the Kangnam area, the most modernized area in 2001, remained empty



**Figure 2 Physical Expansion of Built-up Area in Seoul.**

Source: The Seoul Metropolitan Government, 1997, *The Seoul Urban Master planning toward 2011*, p. 109.

open space until the city government accomplished the development plan for the area.

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After the channel of Han River changed and residential areas were established in the southeastern part of Seoul, the built-up area rapidly expanded in to the Kangnam area and has continued to do so. By late 1980s, however, urban redevelopment policy was directed at the old part of the city. Soon after, the urban skyline started change with high-rise and dense apartment complexes and business buildings replacing single story houses in old residential, squatter and low-density apartment areas, so creating Seoul's present urban landscape.

### **3. The Socio-Economic Changes in Seoul**

As mentioned earlier, the Japanese Occupation and the Korean War disrupted the traditional Korean morals, attitudes and society. In addition, economic development, and changing consuming behavior, leisure activities, quality and quantity in education and labor force structure helped to transform the social structure. Moreover, increasing commuting time because of urban expansion and traffic congestion and changing transportation system give an additional motives to reform the socio-economic structure in Seoul, with a decline in community values, and development of more individualistic and materialistic values. But, people's awareness and concern regarding quality of life, better environment and amenity, as well as their desire to participate in finding solutions to social problems are increasing.

Accompanying these socio-economic changes, the industrial structure in Seoul has altered (Table 2). Firstly, tertiary industry has grown whereas the secondary industry has declined. Secondly, manufacturing employment was around 30.0% in the 1980s, but fell in 1990s, because automation of factory work and restructuring employment decreased workers in production. Management strategies of manufacturing industries are introducing new technologies, automating production process, are giving on-the-job training, diversifying, increasing reliance on temporary workers and foreigners, and on foreign investments (SDI, 1993: 15). Thirdly, major industries in Seoul are clothing, printing and publishing, electricity and electronics, and machinery. Finally, there is a tendency for tertiary industries such as IT, Internet, consulting, insurance and finance, to be highly concentrated in the city after the economic crisis. Moreover, labor-intensive industries have expanded relatively, as design activities, the production of quality goods, and technology-oriented spin-offs have tended to concentrate in Seoul.

**Table 2 The Employment Structure of Seoul (1971-1999)**

Unit: thousand persons (%)

	Primary Industry	Secondary Industry	Tertiary Industry	Total
1965	44(5.7)	93(12.0)	635(82.3)	772(100.0)
1970	27(2.2)	287(22.9)	938(74.9)	1,252(100.0)
1975	26(1.3)	508(25.4)	1,465(73.3)	1,999(100.0)
1980	21(0.9)	721(30.2)	1,649(68.9)	2,391(100.0)
1985	27(0.9)	840(28.7)	2,059(70.4)	2,926(100.0)
1990	21(0.5)	1,351(30.0)	3,132(69.5)	4,505(100.0)
1995	22(0.4)	1,159(23.1)	3,833(76.1)	5,014(100.0)
1999	15(0.3)	847(19.0)	3,601(80.7)	4,463(100.0)

Source: The Seoul Metropolitan Government, 1966-2000, *Seoul Statistical Yearbook*

#### 4. Relation with Adjacent Area

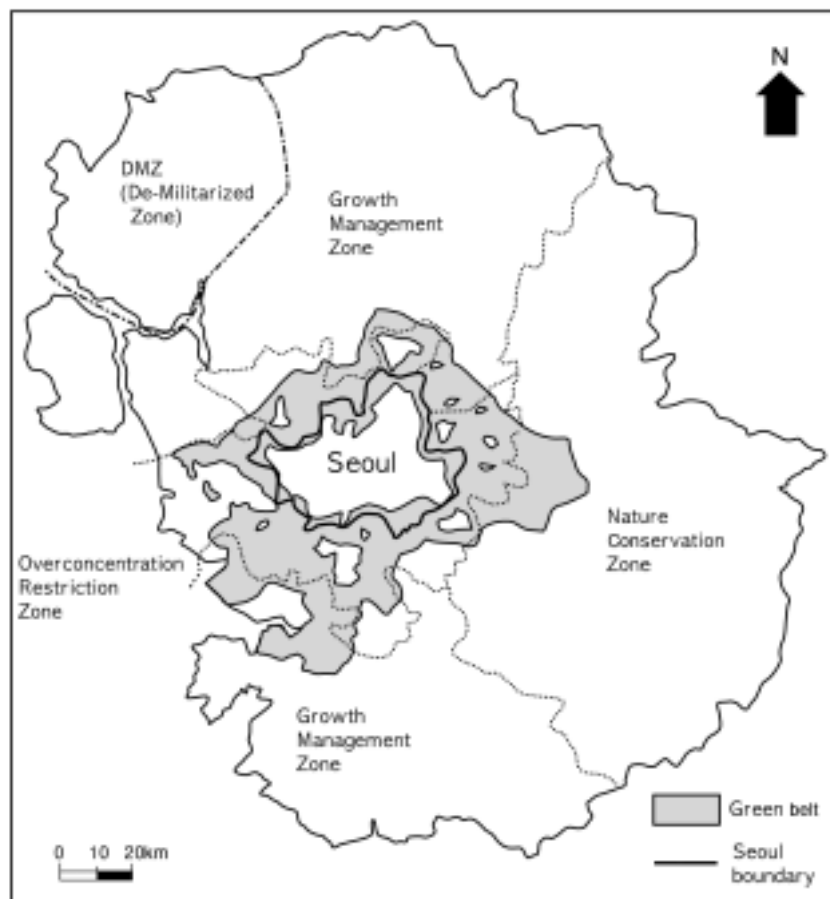
The spatial structure of Seoul Metropolitan Region (SMR) was transformed during the period of sharp increasing population and rapid economic growth. During the 1960s, mass in-migration from rural areas resulted in the gradual expansion of the residential areas to accommodate the increased population.

In 1971, the national government established green belts around the city boundary to limit urban sprawl and preserve the natural environment (Figure 3). The green belt policy provided some control of the spread of urban development, encouraging higher densities within the city boundaries. During the 1970s, the expansion of the urban area was continued by leapfrogging across the green belt into rapidly developed satellite cities around Seoul.

The strategy to slow down the growth of Seoul has an intraregional metropolitan region. It also has an interregional component promoting the dimension fostering Seoul and Kyonggi province as a polycentric development of other regions located some distance from Seoul. The Growth Control Management Plan (1997-2011) for the Seoul Metropolitan Region involves maintaining green belt areas and includes three zones reflecting different degrees of land use control. These three zones are over-concentration restriction zone, the growth management zone and the nature conservation zone (Figure 3).

Most satellite cities, such as Bucheon, Anyang, Seongnam, Guri, Gwangmyung, and Osan, to the south of Seoul have grown rapidly. However, these satellite cities are still influenced by the central function of

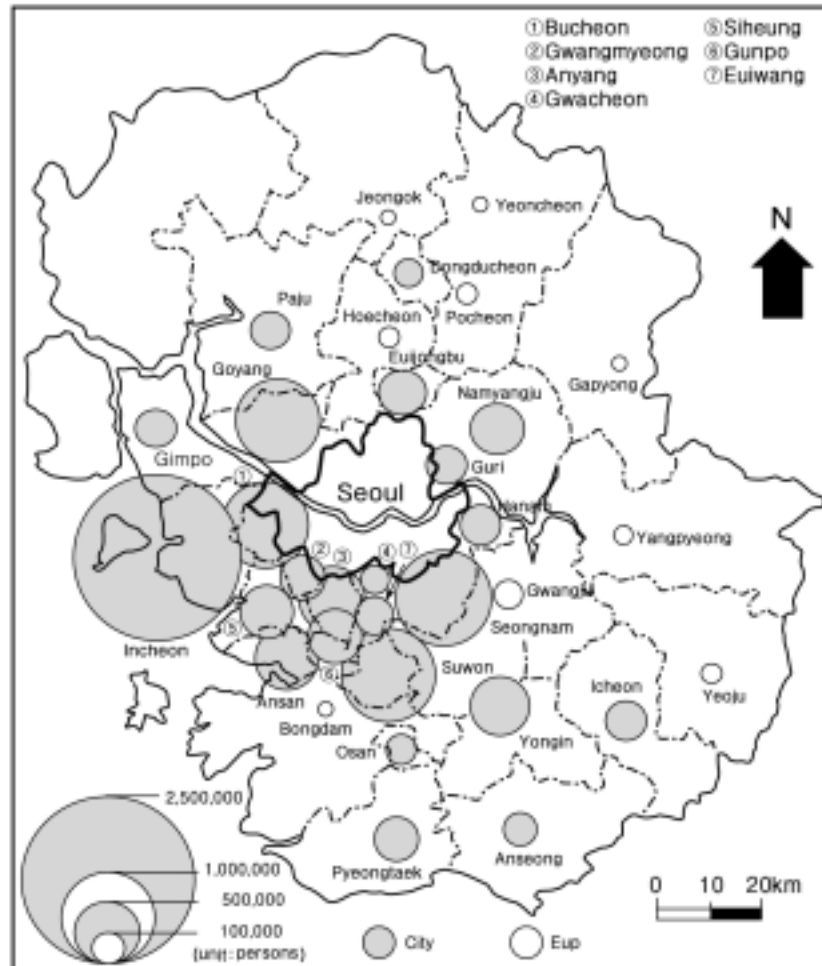
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**Figure 3** Green Belt and Land Use Control for the Seoul Metropolitan Region

Seoul, and they failed to take over as many of the urban functions of Seoul as expected. These satellite cities are mostly dependent upon Seoul for their major urban functions (Figure 4). A major impetus setting off the metropolitanization process was the opening of the suburban electronic railways -- between Seoul and Incheon, and between Seoul and Suwon -- in 1974, for encouraging both commuting and rapid development along their corridors. Therefore at the intra-regional level, the Seoul Metropolitan Region began to show dispersion tendencies from the late 1970s onwards.





**Figure 4 Distribution of Population in Seoul Metropolitan Region (1999)**

The city of Seoul has experienced an absolute decline of jobs in manufacturing and a decreasing share of the total population in Seoul Metropolitan Region, while population and jobs are gradually increased in the Kyonggi province. In spite of further decentralization of employment in manufacturing towards the outer rings of Seoul Metropolitan Region, the shift of population from Seoul to the satellite cities is merely for

residential purposes, approximately half a million suburban residents continuing to commute to Seoul for socio-economic and cultural activities. Such close interactions between Seoul and its satellite cities gain policy attention for they involve many region-wide planning problems.

## **. PROBLEMS FACING THE CITY OF SEOUL**

### **1. Insufficiency of Infrastructure**

Urban infrastructure plays such an active role in determining land use patterns that its importance in city planning cannot be emphasized enough. It can be employed to allow, or sometimes to prevent, the concentration of people, buildings, and economic activities within a city. The quality and condition of infrastructure also influence on both the willingness to live in the city and living costs. It is by the provision of infrastructure that a city government intervenes in the working of the urban economy. Large parts of urban infrastructure consume valuable land and influence land prices.

In the realm of urban infrastructure, it is of critical importance to recognize that people differ in what they want, and what in fact they get as taxpayers. For instance, Seoul citizens expressed widespread dissatisfaction over the lack of parks and open space, recreational facilities, and parking lots. However, “planning with people” involves public hearings and inquiries that may cost money and time. Public participation requires high standards of professional skill,

In recent years, problems have arisen over the siting of such basic urban infrastructure facilities as night soil and sewage treatment plants, solid and liquid waste disposal sites, and crematoria. People are extremely reluctant to have ‘aversion facilities’ in their neighborhoods, being concerned about the risk of bad odors, dirt, water pollution, and the traffic congestion caused by heavy trucks. Moreover, the community image is apt to be spoilt, and property values may fall, particularly near public cemeteries and crematoria.

In fact, one of the toughest conflicts has been between the city government and local residents over the building of a ‘cemetery park’ providing the full range of services from columbaria, crematoria, to funeral services and chapels of rest. From late 1990s, funeral culture started to be changed from burial to cremation (Teather and Rii, 2001). However, the only two crematoriums close to Seoul cannot meet the

demand. The city government decided the site to build a new park providing total services related to funerals in one of green belts areas in the city, but there is still opposition by local residents. Opposition to the establishment of incinerators to deal with domestic waste is a similarly hot issue every year.

## **2. Existing Spatial Structure of Seoul Metropolitan Region and Its Problems**

The present spatial structure of Seoul Metropolitan Region reflects the accumulation of concentration in the past existing urban corridors, related to the Seoul-Inchon corridor, Seoul-Suwon corridor, CBD, and sub-centers of urban. In 1980s, the Kangnam area, was developed as a new sub-center to the south of Seoul, reinforcing, rather than dispersing, the urban function in Seoul.

The concentration of urban activities along existing corridors has given rise to a highly disorganized sprawl of housing and urban functional facilities in the outskirts and suburban areas of Seoul, with inefficient low-density land use patterns. Measures to counter this trend are difficult to develop.

The Seoul Metropolitan Region is also a giant industrial complex system consisting assemblages of co-related industrial areas. The industrial system in the SMR has a structural limitation caused by inadequate and inefficient reciprocal interaction among industrial activities. Re-organization of the spatial structure in the SMR is urgently needed.

Because most urban areas, except Seoul, in the SMR have developed somewhat unique functions depending on the major characteristics of the city, such as residence or manufacturing, these suburban cities have to depend on Seoul itself for many urban functions. Clearly these cities need to establish self-sufficient urban economic and social bases by developing diverse, but interrelated industries.

## **3. Lack of Social Welfare**

When the five-year economic development plans were being carried out, people worked very hard because most of them only thought the economic development of the nation, not for themselves. They were not concerned about enjoying leisure, organizing labor unions, and higher raising wages. They really sacrificed themselves for the sake of national

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economic development. However, people have now started to consider the quality of life and want to enjoy their social and cultural lives. Seoul citizens, in fact, would like to spend time for their own life, free from stress and in good health.

The government began to consider social welfare in the early 1980s when the five-year economic development plan was renamed and changed its major concern to introducing social welfare systems like medical care, insurance and pension schemes. The five working days concept, the organization of labor union and a paid vacation system were also applied to Korean society. Yet, the progress in implementing these systems both in Seoul and in Korean society has not been good, although the central government and local governments, especially since local autonomy was granted in Korea, have tried to find financial support and raise the level of all aspects of social welfare. However, facilities for handicapped and elderly people remain far below a satisfactory level. Policies of care for such people and for low-income families need to be properly developed.

**4. Urban Transportation and Environment**

As in most modern transport problems in Seoul are becoming serious. The automobile became a popular transportation mode in the 1970s, although it was introduced into Korea in the late 19<sup>th</sup> century. Once the automobile, especially private cars, became an important transportation mode in 1980s, they began to have a profound impact on the urban environment. The growth rate of registered private cars has been much larger than that for registered motor vehicles in Seoul, except for 1998-1999 (Table 3). In the 1980s, the growth rate was about 60%, while

**Table 3 Changes of Registered Motor Vehicle in Seoul (1980-1999)**

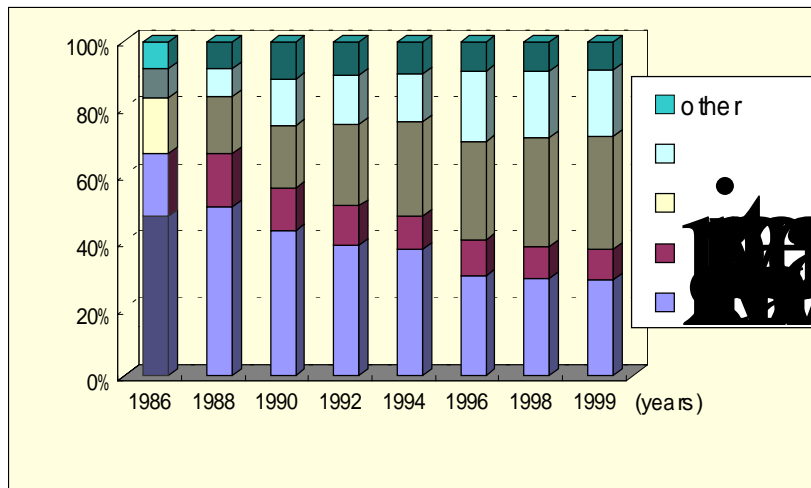
	Registered Motor Vehicle (A)	Growth rate(%)	Private Passenger Car (B)	Growth rate (%)	Persons per Private Passenger Car	(B)/(A)
1980	206,722	-	99,544	-	84.0	48.1
1982	253,647	22.7	127,942	28.5	69.1	50.4
1984	377,220	32.8	209,710	63.9	45.3	55.6
1986	521,521	27.7	304,902	45.4	32.1	58.5
1988	778,940	49.3	493,573	61.9	20.8	63.4
1990	1,193,633	53.2	823,731	66.9	12.9	69.0
1992	1,569,399	31.5	1,126,683	36.8	9.7	71.8
1994	1,932,233	23.1	1,427,705	26.7	7.6	73.4
1996	2,168,182	13.1	1,627,929	14.0	6.4	75.1
1998	2,198,619	1.4	1,653,149	1.5	6.2	75.2
1999	2,297,726	4.5	1,679,727	1.6	6.1	73.1

Source: Seoul Metropolitan Government, 1988, 1993, 2000, Seoul Statistical Yearbook.

persons per registered private car has declined to less than 20 persons. By the 1990s, private cars made up over 70% of all registered vehicles. The severe traffic congestion in Seoul mainly comes from private cars, even though the road capacity increased at annual rate 0.3 percent during the same period.

One feature of the traffic situation in Seoul is that the traffic volume is always heavy, even though automobile growth rate in Seoul has declined to under 5 percent in recent years. Poor public transportation facilities and traffic congestion result in increased commuting time and increased commuting costs for employees demanding higher wages. Raising wages affect on production costs and thus might decrease productivity.

As shown in 1999, the four main transportation modes in Seoul were bus, subway, private cars, and taxis (Figure 5). These modes of transport involve commuting by subways of 33.8%, buses of 28.8%, private cars of 8.6% and taxis of 19.6%. Since the introduction of subway line 1 in 1974 to solve the problem of traffic congestion on surface transportation and increasing travel time, the subway has seen an increasing share of the transportation demand each year, and is now an important public transportation mode.



**Figure 5 Actual Civil Traffic Transportation Share a Day in Seoul (1986-1999)**

Source: Seoul Metropolitan Government, 1988, 1993, 2000, *Seoul Statistical Yearbook*.

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In Seoul, the same problems of pollutant emissions and high energy consumption that plague other cities around the world and threaten long-term human survival are found. Increasing population, motor vehicles and electronic devices, and changing fuel usage have created major environmental problems for the city. With the development of technology, the more people try to improve the quality of life, the more environmental waste and pollutants are produced.

## **. THE STRUCTURAL CHANGE IN SEOUL FOR THE 21<sup>st</sup> CENTURY**

### **1. Centralization and Decentralization**

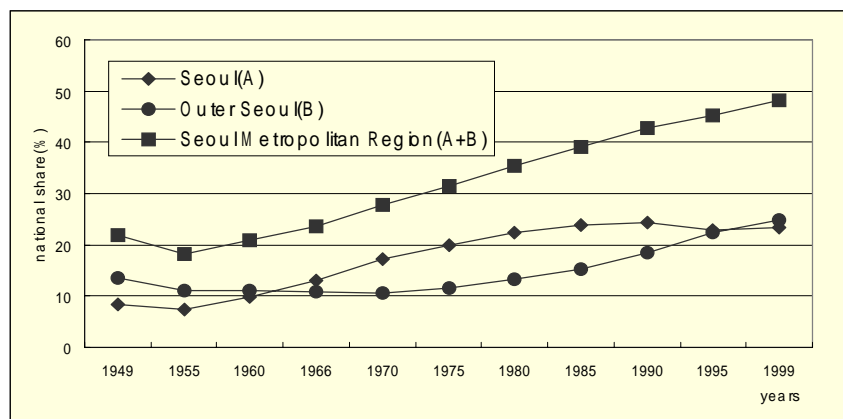
Centralization and decentralization might occur within the same system, and, by definition, change in one subsystem will inevitably generate repercussions in the rest of the system. Decentralization at one level of the system often triggers centralization at different levels and/or in other parts of system. The decentralization of international financial transactions into a bipolar system has triggered hyper-concentration in Seoul. If Seoul becomes decentralized, its potential for attracting business and other urban functions will inevitably increase. Then, new concentration to the city will undoubtedly come again. The effort by the government towards decentralization should take into account its "self-defeating" nature.

In the late 1980s, housing shortage problems put pressure on the government and city planners for the development of new areas. Following the development of the Green Belt in Gaepo, Goduk, Mokdong, and Sangkye-Jungkye-Hakye on the outskirts of Seoul, five large-scale new town development projects were planned and now accomplished for the vicinity of Seoul, at Bundang, Pyungchon, and Sanbon to the south of Seoul, and Ilsan and Joongdong to the west. The total population of these five new towns was expected to reach to 1.2 million with a total area of 294 km<sup>2</sup>, and the residents are recorded 1.1million in 2000. All of these new towns are located within 20km, one hour's commuting distance, from the central business district of Seoul. Accessibility to Seoul from the new satellite cities will be improved by the construction of an intra-regional transportation network -- a mass transit electric railway system linking Seoul and the satellite towns. Thus, this new town policy seems to be a departure from the policy of decentralization and growth control in Seoul.

Population in outer Seoul was much more than in inner Seoul until the

early 1960s, just before the economic development was occurred (Figure 6). With the economic development and in-migration to Seoul, the population of inner Seoul itself increased and exceeded the population of outer Seoul. Decentralization policies or other reasons, led to the population of inner Seoul again falling below that of outer Seoul in 1999.

Ever since 1980, the number of workers in manufacturing in outer Seoul has outnumbered that in Seoul. The percentage of national manufacturing employment in the Seoul Metropolitan Region is 43.8%-- outer Seoul having 32.2%, and inner Seoul 11.6% (Table 4). Although the government has tried to decentralize economic activities, Korean capital has been organized and remained around Seoul since the beginning of its industrialization. And it seems it does not need to be changed.



**Figure 6 The National Share of Population in Seoul, Outer Seoul and the Seoul Metropolitan Region, 1949-1999**

Source: National Statistical Office, 2000, *Korea Statistical Yearbook*.

**Table 4 The growth of Outer Seoul in manufacturing employment (1970-1999)**

Classification	1970	1980	1990	1999
Seoul (A)	291,679 (33.9)	445,242 (22.1)	470,565 (15.6)	267,925 (11.6)
Outer Seoul (B)	104,335 (12.1)	478,678 (23.8)	972,800 (32.2)	743,734 (32.2)
Seoul Metropolitan Region (A+B)	396,014 (46.0)	923,920 (45.9)	1,443,365 (47.8)	1,011,659 (43.8)
The Others Region	465,027 (54.0)	1,090,834 (54.1)	1,576,451 (52.2)	1,295,409 (56.2)
Total	861,041 (100.0)	2,014,754 (100.0)	3,019,816 (100.0)	2,307,068 (100.0)

Source: National Statistical Office, Korea, 1970-1999, *A Survey on Mining and Manufacturing Industries*.

## **2. Tradition and Globalization**

As a large city with a population of over 10 millions, the capital of the Republic of Korea and a historic city that has been in existence for over 600 years, Seoul is the symbolic hometown of the nation reflecting the nation's wealth, organization, and political power. The city government is trying to make 21<sup>st</sup> century Seoul as a clean place physically and ecologically, able to provide the citizens and the visitors with comfort, and to be international business center with futuristic and progressive amenities in an ecologically sound environment, offering warmth and courtesy.

In the context of Seoul's long and deep culture and tradition, Koreans should consider the globalization of culture seriously. One example of the contemporary resurgence of nationalism in Seoul is a series of events celebrating the 600<sup>th</sup> birthday of Seoul as the capital of Korea (September 16<sup>th</sup>-November 29<sup>th</sup>, 1994). Seoul had considerably been restructured by its "Sixth Centennial Celebration Project" in terms of the cultivation of various cultural spheres, a re-emphasis of the historical continuity from old Seoul to contemporary one and the inauguration of numerous community-oriented activities to preserve historical heritage and traditional culture (Seoul Metropolitan Government, 1995c). The Project focused on tracing the historical roots of Seoul dwellers and constructing local consciousness in the face of a massive tide of global forces.

To revitalize the Seoul Metropolitan Region, redirection of the policy from growth control seems inevitable. The goal of regional balance should still be pursued, but the policy should be in the form of indirect economic measures encouraging regional growth in the provincial areas. The economies of the Seoul Metropolitan Region agglomeration should be maintained as long as feasible to support industry's competitiveness in world markets. At the same time, regional balance should be pursued in the form of decentralized concentration by encouraging the growth of large cities, rather than forcibly dispersing growth from Seoul to the backward regions. The global functions of Seoul need to be developed further so that it can serve as a gateway to the world for South Korea and play a global role to match that of the global cities of the world.

Globalization was the reality of the 1990s. In the coming years, many nations will go through industrial restructuring to accommodate a new international division of labor. In consequence, there will be a large increase in international trade and in cross-border movements of labor and machinery, Foreign Direct Investment, and other forms of international



cooperation. After two decades of compressed economic growth, the comparative competitiveness of South Korean industries is being contested in world markets. This general trend has been reflected in Seoul, which accounts for 33.5 % of national total FDI inflows in 2000. Among service industries, hotel, finance, trade, distribution (retail and wholesale) and insurance sectors receive 49.2 % of FDI inflows to Seoul in 2000 (Table 5). The Seoul economy has been internationalized at a fast pace. The inward FDI flow in Seoul, which has increasingly been for services rather than manufacturing industries, has multiplied in the past decade. The internationalization of the Seoul economy has possible because global pressures have opened up the market and as a result of local initiatives seeking for the advancement of international competitiveness.

**Table 5 Foreign Direct Investment in Seoul (1985-2000)**

	Foreign Direct Investment (US\$ million (%))				National Share 2000 (%)
	1985	1990	1995	2000	
Manufacturing	13.7 (3.8)	36 (17.1)	78.9 (10.9)	1,035.4 (19.7)	14.5
Services	332.9 (95.9)	174.0 (82.9)	640.9 (89.0)	4,214.7 (80.2)	49.2
hotel	300.5	21.6	30.0	0.3	
finance	17.1	60.7	28.6	1,410.2	
commerce and trade	0.2	26.0	88.6	223.5	
retail and wholesale	1.1	0.6	54.4	291.4	
insurance	0.2	46.6	55.8	454.5	
Other	0.1 (0.3)	0.5 (2.4)	0.1 (0.1)	2.1 (0.1)	37.3
Total	346.8(100.0)	210(100.0)	720(100.0)	5,252.3(100.0)	33.5

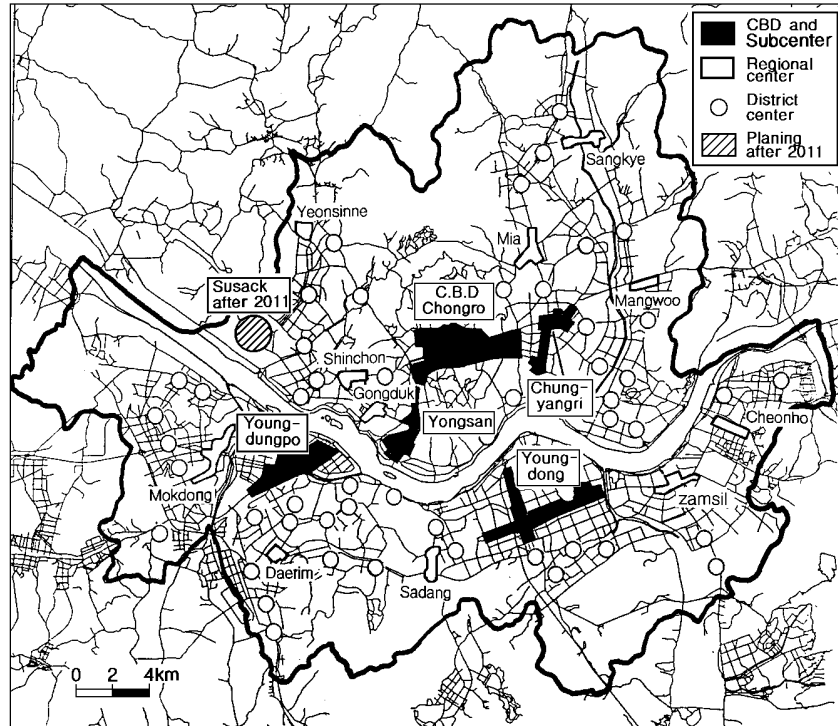
Source: International Economic Policy Bureau, 2001, Ministry of Finance and Economy, Korea.

### 3. Multi-centered Urban Structure

Seoul has consistently maintained a single core structure since its foundation, but the structural transformation of urban activities has tended to accelerate the appearance of an emerging multi-centered city since 1980, as spatial analysis of population distribution, employment structure, land values and commuting patterns demonstrate (Lee, 1997:311).

For the 21<sup>st</sup> century, the city government has made a plan for the spatial structure of the city of Seoul with four different hierarchies within the urban center system. These are CBD, four subcenters, eleven regional centers and fifty-four district centers (Figure 7). The city was divided into five zones and each zone has one sub-center except the West-North Zone. The old urban center still exists as a major central business district, in

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**Figure 7 Multi-Centers in Seoul for the 21<sup>st</sup> century**

Source: Seoul Development Institute, 1997,  
The Seoul Urban Master Planning toward 2011, p. 79.

Chongro-gu. Here the traditional landscape from 600-years' history of the city and the modern landscape of political, socio-economic and cultural functions coexist in the old center of Seoul. The four subcenters are Youngdungpo in West-South Zone, Youngdong in East-South Zone, Yongsan in Central Zone and Chungyangri in East-North Zone. And the Susack in West-North Zone will be developed as one of five subcenters after the year of 2011. These subcenters share the function with CBD to absorb the inflow of transportation and urban centrality to the center.

Lower in the hierarchy than sub-centers, the regional centers are Mia, Sangkye and Mangwoo in East-South Zone, Yeonsinne, Shinchon and Gongduk in West-North Zone, Zamsil, Cheonho and Sadang in East-South Zone, Mokdong, Daerim in West-South Zone. The function of district center in each zone is the central place of local autonomy district for living. In some cases, the local autonomy district has the two district centers.

According to the planning proposal of urban spatial system, the central structure in Seoul made the multi-center system to reinforce the functional cohesion of CBD and sub-center by increasing the efficiency of urban land use. In each zone, however, different structural hierarchy and the diverse densities of land use patterns are indicated.

#### **4. Sustainability in Seoul**

Sustainability was a keyword of development discourse in the 1990s. Development, so-called 'economic growth' in Korea, was reappraised because it undermined ecological stability, and it destroyed the quality of people's livelihoods. In the market economy, the organizational principle for the relation to nature is to maximize profit and capital accumulation. Seoul, as one of the mega-cities in Korea, has been a massive consumer of resources and has generated many waste and pollution problems. Urban activities involving transport, the heating system, and the fuelling of production processes play a role in global warming. There is growing public concern for the urban environment and 'green' issues. The government is under pressure to reinforce emission control. The planners are asked to behave like environmental watchdogs and to design land use patterns based on the 'Compact City' concept. In the future, the use of telecommunication will substitute for some travel and new information technology will be applied to conserve materials and energy.

As with the urban environment itself, the impact of Seoul's growth upon the surrounding countryside is tremendous. Excessive demands of Seoul dwellers for leisure and recreation activities generate many social, cultural and ecological problems in the countryside. Resort areas and golf courses require a great deal of land, and their construction causes environmental disruption. Even tourists and visitors leave behind a great amount of rubbish in rural areas. Space eating by graveyards is another visible nuisance. At present, private tombs and public cemeteries in the Kyonggi province are the total area of 61.8km<sup>2</sup>.

As the years pass, complete new generations, being educated and growing up in Seoul from birth, will be living in cities through out their lives and will have no link with rural areas. Social repercussions on the future urban life will be great since their perceptions of the nature are very limited. If care is not taken, juvenile delinquency and violence may be increase. This is why it is so important to provide the young people with as many opportunities as possible to them good access to rural areas (Kwon, 1994: 265). To maintain a sustainable environment for our descendents under such a statement, the city government, planners as well as Seoul

citizens should consider other people's well-being and make an effort with to cooperate with each other.

## **. CONCLUSION**

Seoul is a global city rather as well as the capital of Korea and has undergone a profound transformation since the late 19<sup>th</sup> century. Now ideas are needed to transcend national borders and deliver strategies to cope with globalization. Seoul must develop a network of airport, seaport and high-speed trains befitting the age of the borderless society and must reinforce its international business environment and function. Seoul citizens should equip themselves with new pattern of behaviors and a civic consciousness. Urban management reform and the renovation of urban structure are also needed. Answers to these mandates must be sought from questions as to what Seoul needs and what it should be like in the future. Whether Seoul is to play a leading role in the 21<sup>st</sup> century largely depends on our imagination, determination and endeavors.

The spatial structure plan of Seoul and its surrounding areas was suggested to solve serious problems, transportation and environment of the region and establish its cohesive and efficient spatial structure. The planning proposal should include construction of an efficient transportation system and economic and housing development plans to strengthen socio-economic functional linkages of the region, re realize multi-centric spatial structure, relieve transportation congestion and enhance the urban living environment.

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