13

13 창수원 | METROPOLITAN AREAS

13.1.1 | Topography
13.2.1 | History
13.3.1 | Population
13.4.1 | Population Density
13.5.1 | Emphasics
13.6.1 | Manufacturing & Service Industries
13.7.1 | Housing Type
13.8.1 | Land Use
13.9.1 | Metropolitan Transportation Network
13.10.1 | Commuting

Panoramic view of Hansan from Mt. Namhan
13-1 TOPOGRAPHY

The growth of the metropolitan area, centering around Seoul, has been in line with the nation’s economic growth over the last 50 years. The metropolitan area is to be recognised as a large city that acts like Seoul. There are differences in the scope of Seoul metropolitan area defined by scholars, but the legal definition of a metropolitan area is limited to Seoul, Incheon city, and Gyeonggi-do. This book looked at the characteristics and changing trend of the legal metropolitan city. The metropolitan area is located in the west of the middle of Korea, and borders on Gyeongsang Bay in the west, Hongcheongu in the northeast, Gangneung in the east, and Chongchon in the south. There are Mt. Seoraksan on its boundary with Hongcheon-gun, and Charyung mountains on its boundary with Chongchon-gu. While, most western regions of the metropolitan area are alluvial plains, northeastern regions have high mountains with the altitude of above 1000 m. Han river flowing from Ganges-dong is the most important water system, and the river running from the east to the west served as the main watercourse until automobile and train transportation was developed.
### 13-2 역사

수수께끼한 석가문 명은 대단한 명예를 달성한 것. 수수께끼 석가문 10개의 현상, 맹세와 같은 석가문에 대한 설명은, 사자와 이설력이 말 한 말을 한 말로 잡아요. 또한 석가문 10개의 현상에 대한 설명이, 이설력과 한 말을 한 말을 한 말로 잡아요.

### 13-2 HISTORY

The metropolitan area lies at the heart of the Korean Peninsula, and the tribal nation had existed in the area since the Paleolithic Age. The metropolitan area was named Gyeonggi-do when King Hyomyeong, the 8th king of Silla, put Gwangju and neighboring 13 provinces under the direct control of the central government. During the reign of King Gyeong-gyeom, the area was transformed into a regional district of the Gyeonggi-do, the 3rd king of Jin Dynasty, implemented the system of dividing the nation into 8 districts (province). Each metropolitan area came to have the boundary similar to that of the current area. The Korean peninsula was liberated from the Japanese colonial rule when the most areas of Yeojuwon-gun and some parts of Gyeonggi-do are located in the North of the 3rd Province, and some parts of Naejang town in the South. Pumpaeseong was promoted to the Seoul Metropolitan Government and separated from Gyeonggi-do. Some parts of Gyeonggi-do were incorporated into Seoul Metropolitan Government in 1942, and Nyeong-in was separated from Gyeonggi-do and promoted to Incheon Metropolitan City. Many parts of Gyeonggi-do were promoted to cities after massive inflow of population to the metropolitan area, and there are 27 cities and 6 gun (sub) under the jurisdiction of Gyeonggi-do as of 2005.

### Table 17: Administrative District, 2005

<table>
<thead>
<tr>
<th>Administrative District</th>
<th>Number</th>
<th>Area (㎢)</th>
<th>Population (万人)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul Metropolitan City</td>
<td>13</td>
<td>170</td>
<td>10,360</td>
</tr>
<tr>
<td>Gyeonggi-do</td>
<td>17</td>
<td>2,000</td>
<td>8,720</td>
</tr>
<tr>
<td>Incheon Metropolitan City</td>
<td>12</td>
<td>1,500</td>
<td>8,100</td>
</tr>
<tr>
<td>Gyeonggi-do</td>
<td>17</td>
<td>1,500</td>
<td>8,100</td>
</tr>
<tr>
<td>Naejang Town</td>
<td>10</td>
<td>150</td>
<td>8,000</td>
</tr>
<tr>
<td>Gyeonggi-do</td>
<td>17</td>
<td>2,000</td>
<td>8,720</td>
</tr>
</tbody>
</table>

*Note: the table is not exhaustive and shows the trend of a physical.*
13-4 POPULATION DENSITY

Seoul showed the population density of 28,468 persons/km², 2 times that of Gyeonggi-do in 2002 (15,529 persons/km²). While Seoul’s population density has continued to decline since 1995, that of Gyeonggi-do has been on the rise. Population density sharply rises in the cities adjacent to Seoul.
**13.5 Employees**

The number of employees serves as an indicator of the employment base of a region. Employees in the metropolitan area account for 53.6% of the national employees, and there is a steady and dramatic increase in the number of employees in Gyeonggi-do. The number of Seoul's population temporarily declined in 2008, and slightly rose in 2009. While the percentage of Seoul's population in the national population has continued to drop, that of Gyeonggi-do has continued to rise since 1999 along with the expansion of the metropolitan area.

In line with population growth patterns, the number of employees rose along Seoul-Incheon axis and Seoul-Pusan axis, and the southwestern part of the metropolitan area has seen a large increase in the number of employees.

**Figure 110. Number of Workers, 2005**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11,006,000</td>
<td>11,820,000</td>
<td>12,714,000</td>
<td>13,710,000</td>
</tr>
</tbody>
</table>

**Figure 111. Percentage of Workers, 1996-2005**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul</td>
<td>53.6%</td>
<td>54.1%</td>
<td>54.6%</td>
<td>55.1%</td>
<td>55.6%</td>
<td>56.1%</td>
<td>56.6%</td>
<td>57.1%</td>
<td>57.6%</td>
<td>58.1%</td>
</tr>
<tr>
<td>Gyeonggi-do</td>
<td>34.5%</td>
<td>34.9%</td>
<td>35.3%</td>
<td>35.7%</td>
<td>36.1%</td>
<td>36.5%</td>
<td>36.9%</td>
<td>37.3%</td>
<td>37.7%</td>
<td>38.1%</td>
</tr>
<tr>
<td>National</td>
<td>42.4%</td>
<td>42.7%</td>
<td>43.0%</td>
<td>43.3%</td>
<td>43.6%</td>
<td>43.9%</td>
<td>44.2%</td>
<td>44.5%</td>
<td>44.8%</td>
<td>45.1%</td>
</tr>
</tbody>
</table>

**Figure 112. Shifting Trend of Workers, 1996-2005**

- Seoul: Increase
- Gyeonggi-do: Increase
- National: Decrease

**Figure 113. Employment Characteristics of Establishment 1996, 1999, 2002, 2005**

- Seoul: Growth
- Gyeonggi-do: Growth
- National: Decay
13-6 제조업 및 서비스업

주요 업계 분야는 제조업 및 서비스업으로 수요가 큰 산업들로, 일기와
의 일자리를 제공한다. 제조업의 경우, 병합감(병합감)은 우
중복이 발생하는 경우를 사례로 정의하고, 고(고) 약2005년의 제조업
내용은 제조업의 경우, 일자리의 제공은 제조업의 일자리에
대한 내용을 제공한다. 서비스업의 경우, 제조업의 일자리에
대한 내용을 제공한다. 서비스업의 경우, 일자리의 제공은 제조업의 일자리에
대한 내용을 제공한다.

13-6 MANUFACTURING & SERVICE INDUSTRIES

The distribution of establishments and employees of major
industries shows the metropolitan area's industrial function
and role. There are more service industries in the metropoli-
tan area than other industries, but the number of service
establishments dropped in 2005, compared with a decade
earlier. Sanyangdo's manufacturing industries began to
exceed that of Seoul Metropolitan Government in 2005.
Seoul has more service industries than Sanyangdo, but
Seoul's service industries significantly declined, reducing
the gap between Seoul and Sanyangdo. Seoul's high land
value led to a decrease in the number of manufacturing
industries and increase in service industries, but service
industries also shrunk in 2005.

Figure 112. Number of Manufacturing & Service Industries, 1994 - 2005

Figure 113. Number of Manufacturing Workers, 1994 - 2005

Figure 114. Service Industry Workers, 1995 - 2005

102 | Thematic Maps of Seoul 2007

Thematic Maps of Seoul 2007 | 103
13.7 HOUSING TYPE

Apartment symbolism, urbanization, and population concentration. The process of apartment complex expanding in the metropolitan area is in line with the process of population influx into the metropolitan area. In the early 1980s, apartment complex, mainly in the south of Han River, expanded into Gwacheon, Anyang and Ansan, and the satellite cities, such as Seongnam, Goyang and Bucheon, rapidly transformed into apartment complex after people moved into 5 new towns including Goyang, Bundang, Pyeongtaek, Sangju and Jungdong. As a result, the whole metropolitan area, except for some parts of northeastern region, became an apartment predominant area. As the apartment areas expanded into the suburb, apartments have been built rapidly in region where residents can commute to Seoul, such as Yongin, Kimpo, Guri, and Namdong. However, apartment complex that is not equipped with transportation network, education facilities and convenience facilities causes inconvenience to residents, and is not desirable in terms of diversification of housing types.
13-8 LAND USE

The change in metropolitan area’s land use shows that the percentage of agricultural land such as pastures, dry fields, and former land on the decline, and the percentage of build-up areas such as public lands and public areas is steadily rising. Due to adjustment of an administrative district, the percentage of build-up areas began to increase in 1996.

The percentage of agricultural land in Seoul dropped by 8.0% from 1980 to 2003, and that of Songpa-gu declined by 6.1%. On the other hand, the percentage of built-up areas climbed by 6.3% in Seoul, and by 3.2% in Songpa-gu. The change in land use is noticeably remarkable along a trunk road, and is expanded into Seoul-Hyogo axis, Jungbu axis and Seoul-Youngnam axis as well as Seoul-Incheon axis and Seoul-Busan axis, and even spread into Heoising, Paju and Namyangju after 2000.
13-9 광역교통망

수도권 광역교통망은 경기도를 중심으로 해서의 경도 지역과 서울시 지역으로 나뉘며, 수도권 광역교통망은 수도권 광역교통의 중심인 서울시와 경기도의 교통망을 포함하는 복합체로 구성되어 있다. 수도권 광역교통망은 서울시의 교통망과 경기도의 교통망을 포함하며, 서울시의 교통망은 서울시의 주요 도시교통망으로서, 경기도의 교통망은 경기도의 주요 도시교통망으로서 구성된다.

13-9 METROPOLITAN TRANSPORTATION NETWORK

With the living space of the metropolitan area growing, it is increasingly important to improve the metropolitan transportation network. The transportation network is divided into the railway system including subways, national railways, electric railways, and road system including expressways and national highways. The metropolitan electronic railway network of 438.5 km is made up of subway lines 1-8 of 284.9km managed by Seoul Metro and Seoul Metropolitan Rapid Transit Corporation and railways of 251.6km managed by Korea Railroad corporation, Incheon Rapid Transit Corporation and Incheon airport railroad corporation of 2007. The metropolitan expressway network focusing on six outer circular expressway comprises of 5 lines of 241.8km and 9 line of 96.7km.

Figure 116. Metropolitan Transportation Network Plan, 2006

Figure 117. Metropolitan Transportation Network, 2007
13.10 COMMUTING

The commuting pattern of the metropolitan area shows citizens’ movement patterns regardless of the boundary of administrative districts.

A study on trips from or to Seoul shows that trips from Seoul to Gyeonggi-do are gradually increasing, and traffic volume from Gyeonggi-do to Seoul rose from 7% of all trips to Seoul in 1990, to 24% in 2006. This is translated into the fact that there was a 7.6-fold increase in people making trips from Gyeonggi-do to Seoul from 142,000 to 1,027,000, which shows that residential area has steadily expanded. Areas with more than 30% of Seoul commuters shrunk from a 20-60 km radius of Seoul in 1997 to a 20 km radius, and there are less than 7% of Seoul commuters outside a 50 km radius of Seoul. The declining rate of commuting trips to Seoul is attributable to the transfer of workplaces from Seoul to the metropolitan area and a growing number of workplaces established in the outskirt.

13.11 THE DISTRIBUTION OF COMUTING TRAFFIC

Figure 119. Commuting Traffic to Seoul, 2006

| Percentage of Commuting Traffic to Seoul, 2006 |
|-------------------|-------------------|
| Source: Ministry of Land, Transportation, and Maritime Affairs |

13.12 DISTRIBUTION OF TRAFFIC VOLUME

Figure 120. Seoul’s Commuting Traffic Volume, 1989-2006

| Seoul’s Commuting Traffic Volume, 1989-2006 |
|-------------------|-------------------|
| Source: Ministry of Land, Transportation, and Maritime Affairs |

The distribution of commuting traffic shows the importance of the metropolitan area as a commuting hub.

*Total traffic volume (2006) = 9.82 million*