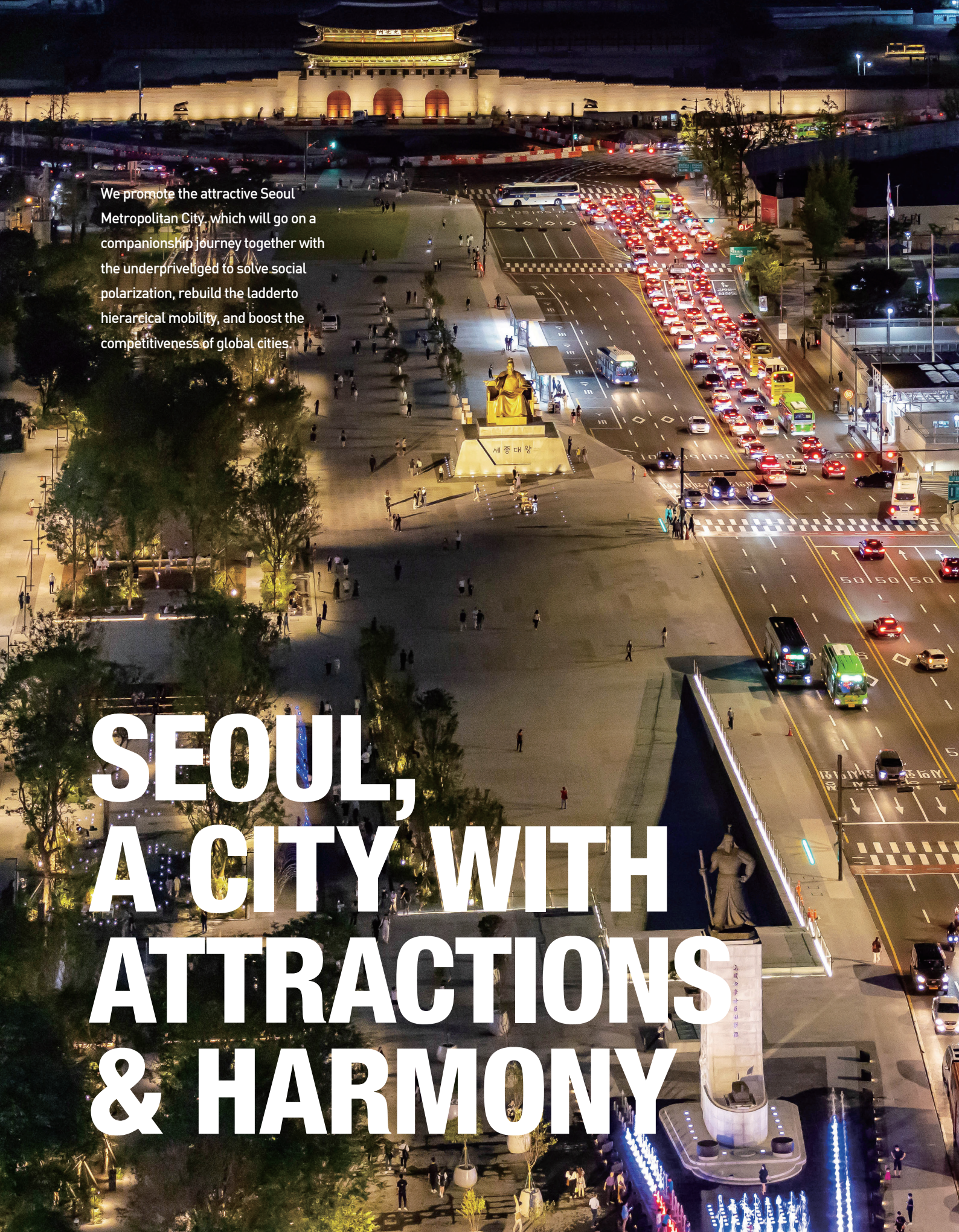
SEOUL MY SOUL

SEOUL'S POLICY SHARING INITIATIVE

SEOUL METROPOLITAN GOVERNMENT

SEOUL

A CITY WITH ATTRACTIONS & HARMONY



We promote the attractive Seoul Metropolitan City, which will go on a companionship journey together with the underpriveliged to solve social polarization, rebuild the ladderto hierarcical mobility, and boost the competitiveness of global cities.

SEOUL, A CITY WITH ATTRACTIONS & HARMONY

Seoul, the capital of the Republic of Korea, is a large city where approximately 1/5 of the total population lives. The capital represents the Republic of Korea, as Seoul is the hub of industry and finance, in the top ranks among the most influential cities in the world. Seoul is also the mecca of Hallyu (Korea wave) culture that has been drawing attention from the whole world in recent years. As is shown in these examples, Seoul is developing into a global city that leads the world in a wide range of fields including economics, culture, and IT.

Seoul is a smart city and well-equipped with IT infrastructures and services. The city ranked 1st in urban intellectualization and integrated infrastructures, and 2nd in urban openness. Seoul provides citizens with convenient pubic transportation by providing access to internet through free Wifi and real-time transportation information on electronic information boards at every station. The city also allows the limitless use of IT-based multiple living convenience facilities.

Seoul citizens can use services to safely return home at all times, in a city known as the safest city in the world.

The specific merit of Seoul is none other than 'Harmony and Coexistence', beyond a convenient city. Seoul is the hub of K-culture and an attractive city where tradition and modern history, nature and urban civic center coexist in mutual harmony. Four palaces in Seoul and museums around the area enable citizens to experience Korean history and culture in depth.

Multiple streets that were created across the corners of Seoul give the fu ll feeling of youth and K-Culture. Around the wide Han River across Seoul lies spaces covered with natural scenery, where citizens can enjoy a variety of leisure activities. Mountains surrounding Seoul offer hiking and walking trails. Thus, walkers can relish nature in urban civic centers.

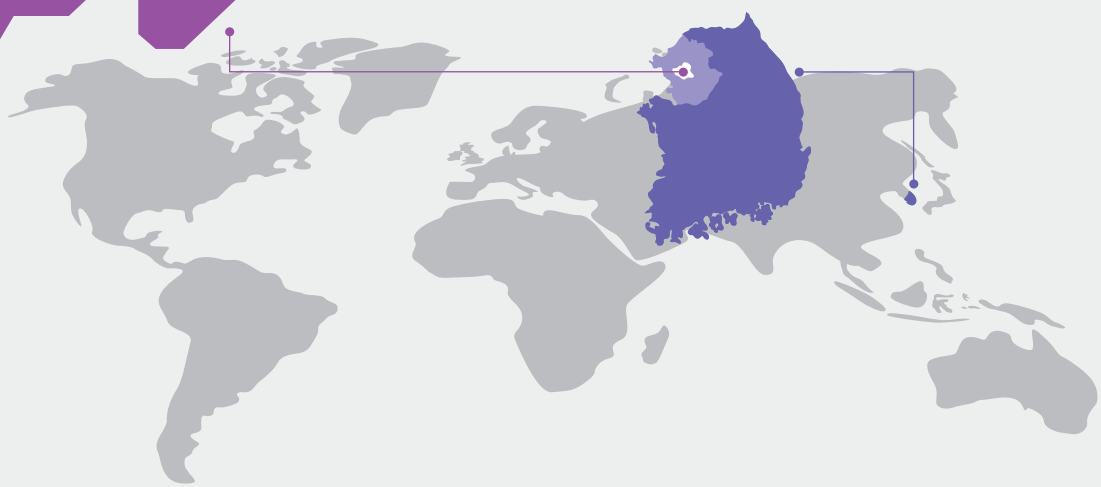
Seoul is advancing together with Seoul citizens in harmony with tradition and modern history, nature and city, human and culture, based on its sentiment of an attractive city and companionship value. Seoul facing the world beyond Korea provides a happy life space, becoming a reliable partner.

〈Source : Seoul Branding Division〉

01 Current Status of Seoul

Seoul boasts outstanding natural beauty amid mountains and rivers. It is home to approximately ten million people who live in a safe and healthy environment. For the sustainable development of the city, the Seoul Metropolitan Government (SMG) makes steady efforts to reduce its greenhouse gas emissions and improve its energy efficiency while at the same time incorporating the country's cutting-edge information and communication technology (ICT) into every aspect of its municipal administration including traffic control, water management and urban safety.

- **Location** Center of the Korean Peninsula
- **Population** 9,668,008 (as of 1Q 2023)
- **Area** 605.25 km^2
- **Major River** Hangang River
- **Mountains** 26 including Namsan, Bukhansan, Gwanaksan, Dobongsan, Umyeonsan and Buramsan



02 Characteristics of Seoul

Transportation | Mass Transit & Green Transportation City
Public transit utilization 65%, energy conservation, CO_2 reduction

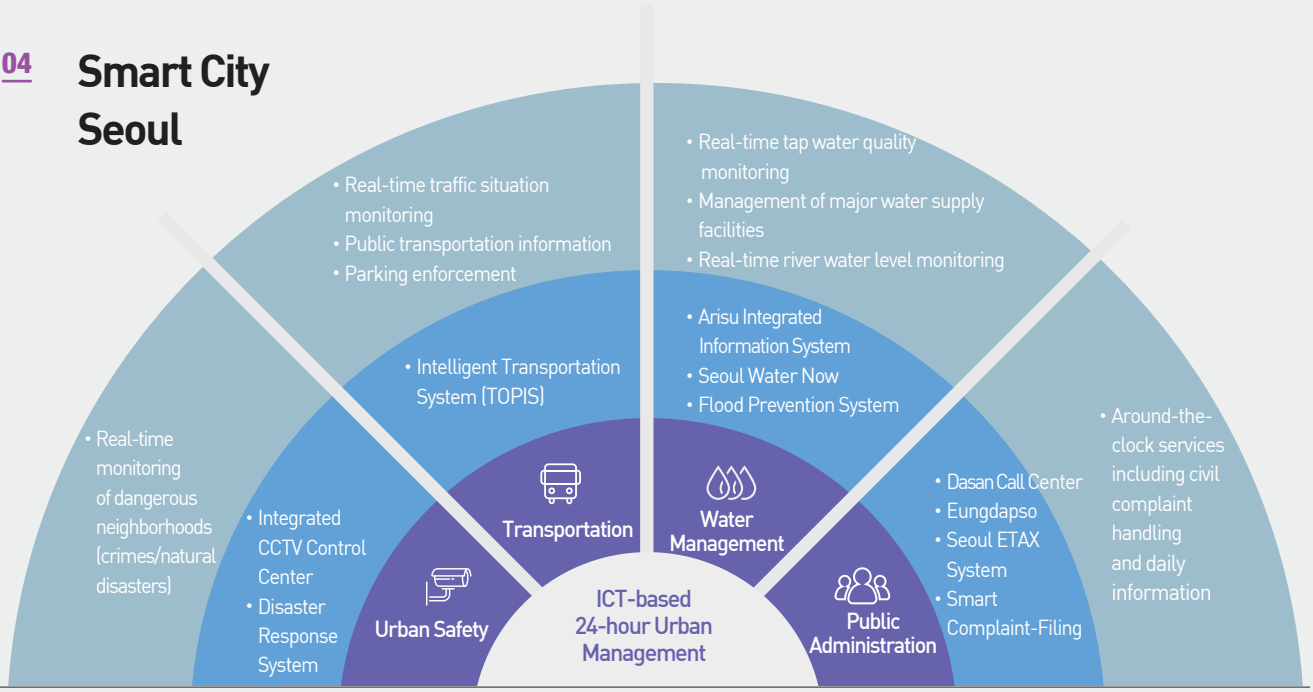
Urban Pattern | Compact City
Infrastructure investment ↓, Walkable city

Waste | Resource-recycling City
Household waste recycling 67%, turning waste into resources

03 International Evaluation of Seoul

- Composite Urban Competitiveness Index (The Japanese Mori Foundation)
- Global Smart City Index (IESE Business School, 2022)
- Global Startup Eco-City Rankings (Startup Genome, San Francisco, 2022) Ranked 10th

04 Smart City Seoul



05 Major Indices

〈Source : Seoul statistics (stat.seoul.go.kr)〉

Population

966 million

Total population
9,668,008 persons
(as of 1Q 2023)

Population density
15,973 people/km^2 (2023)

No. of households
3,873,104 (2022)

Industrial Economy

KRW **444** trillion

Regional GDP
KRW 444.544 trillion (2020)

No. of businesses
1,188,091 (2021)

Welfare Benefits

400 thousand beneficiaries

No. of National Basic Living Security beneficiaries
403,311 (2021)

No. of social welfare facilities
3,095 (2021)

Culture/Tourism

3.19 million tourists

Foreign tourists
3,198,017 (2022)

No. of international conferences
265 (2022, 2nd Ranking in the World, 2022)

Public libraries
195 (2021)

No. of cultural assets
2,012 (2021)

Urban Development and Housing

3.87 million houses

No. of houses
3,873,473 (2022)

Diffusion ratio of housing
94.2% (2021)

No. of public rental housing
1,716,597 (2021)

International Exchanges

73 cities

Friendly and Amicable City
73 (2023)

Membership in international organizations
38 organizations

Environment

18.7 m²

Parkland per person
18.74m² (2021)

Capacity of Domestic Recyclable Domestic Wastes
6721% /9,673.4 tons (2020)

Food waste
2,540.7 tons/day (2020)

Fine dust
38㎍/m³(2021)

Water consumption
1,076,154000㎥

Electricity consumption
47,295,805MWh (2021)

Sewer pipeline
10,827km (2021)

Water supply pipeline
13,360km (2022)

Green Facilities
8,355 Facilities (2021)

Urban Safety

78 points

Traffic safety index
78.02 points (2021)

No. of crimes
257,967 (2021)

Number of Five Major Crimes
80,445(2021)/
Cases of Arrest: 58,012 (2021)

Number of Relief Activity of 911 Rescue Team
196,860 (2021)

Amount of Damage from Natural Disasters
KRW 176.600 million (2020)

No. of fires
4,951 (2021)

Transportation

61.4 %

Sharing Ratio of Public Traffic Means
61.4%(2020)

No. of registered vehicles
3,193,351 (2022)

Volume of Traffic Passage on a Daily Basis
26,497,000 Passages / on a Daily Basis (2020)

Velocity of Vehicle Passage
23.1km/h (2022)

Road ratio
23.2%(2021)

Extension of Subway
376.1km, 11 Lines (2022)

Subway Passengers on a Daily Basis
4,288,000 Passengers (2022)

Running Downtown Bus Vehicle
7002 Buses (2023)

Number of Downtown Bus Lines
382 lines (2023)

Downtown Bus Passengers on a Daily Basis
3,439,000 Passengers(2022)

Bike Road
1,316km (2022)

Administrative General

95.7 %

Information disclosure rate
95.7% (2022)

Annual Expenditure Accounts
KRW 67 trillion 593 billion (2021)

Collected Amount of Local Taxes
30 trillion 13.3873 billion (2021)

Financial Self-Reliance Ratio
76.3% (2022)

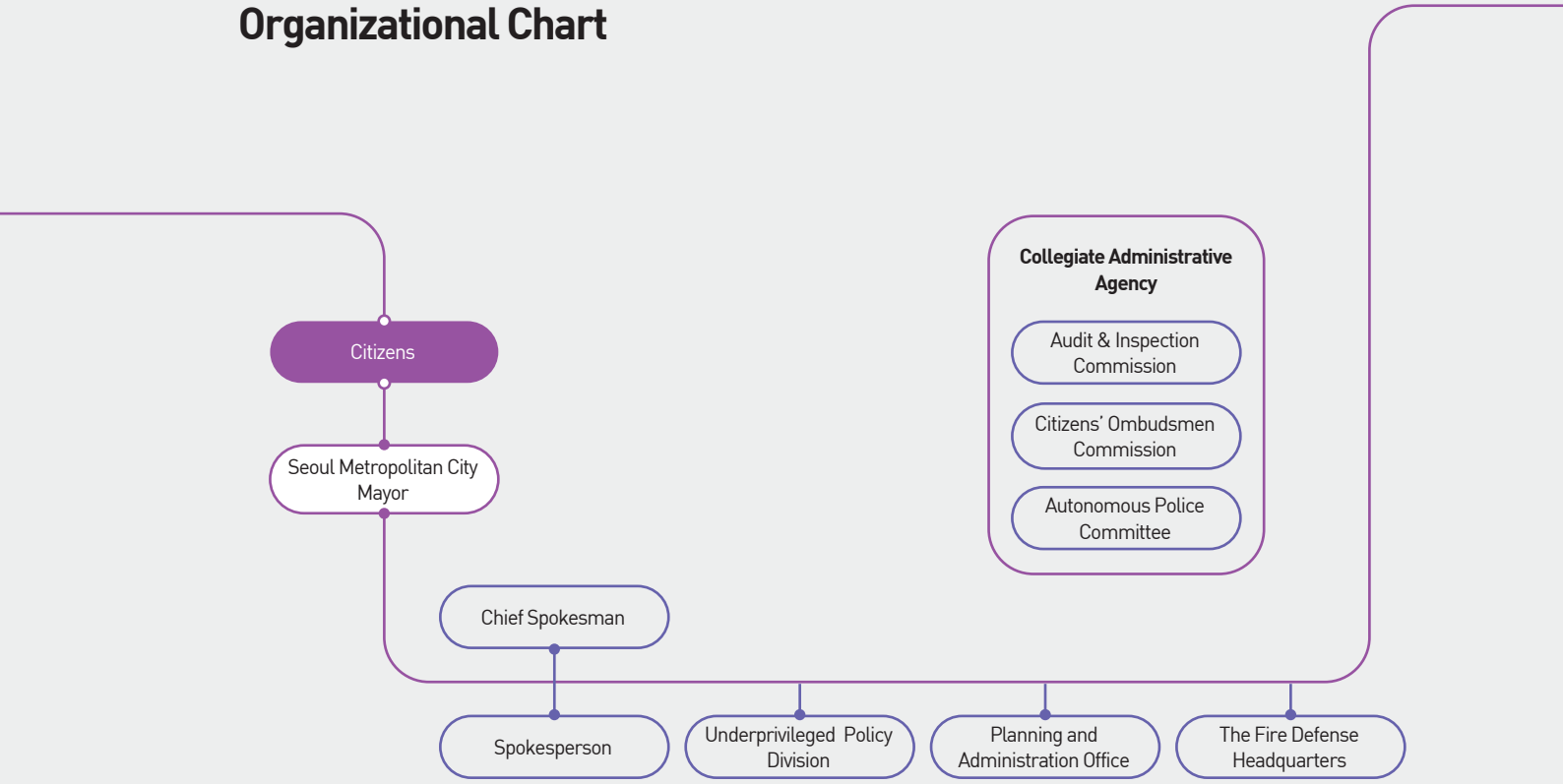
Financial Independence Ratio
79.6% (2022)

Financial Capacity Index
74.4% (2022)

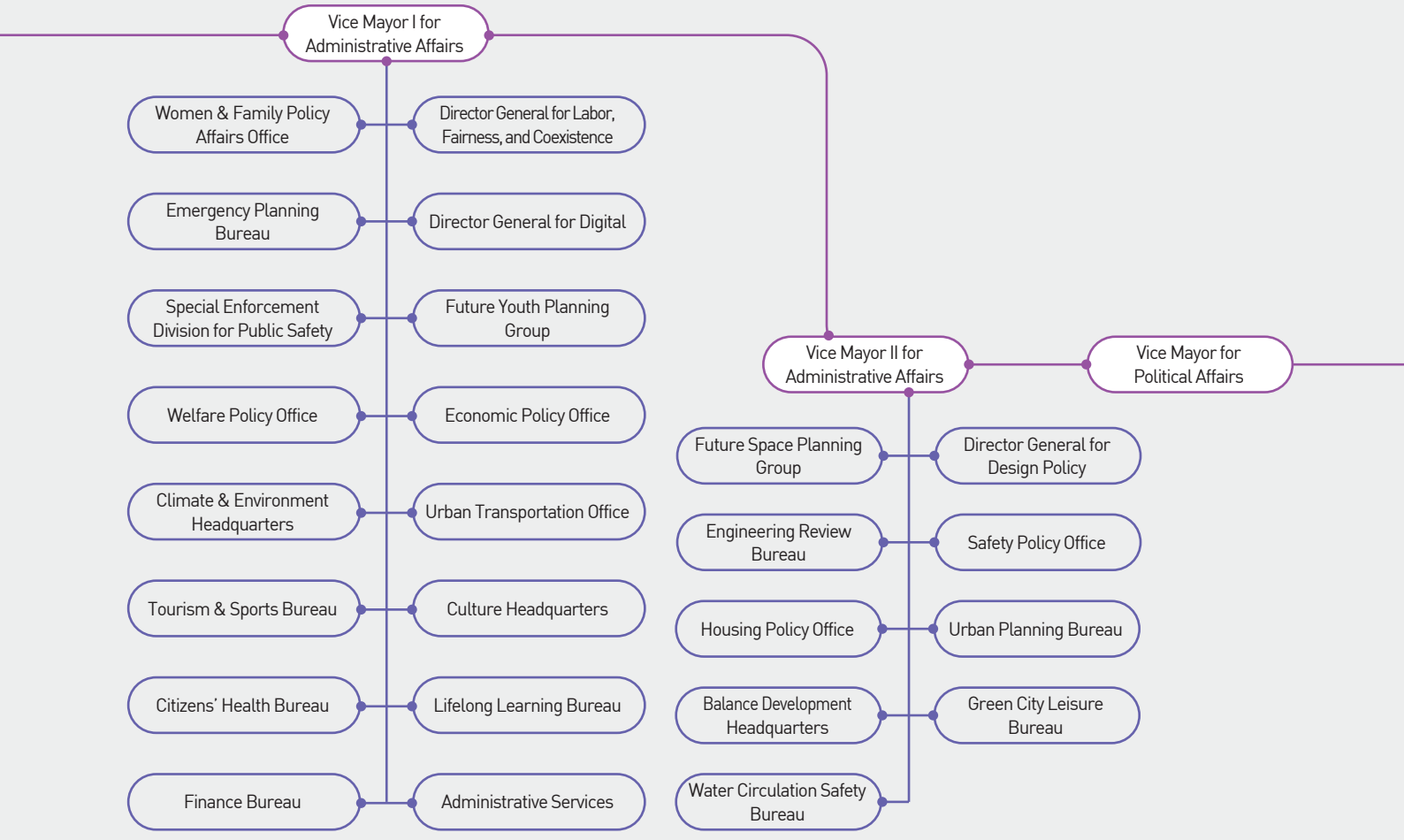
Number of Public Servants
56,277 Public Servants (2022)

Number of Registered Volunteers
2,595,750 Volunteers (2023)

06 Seoul Metroplitan Government Organizational Chart




서울신문
FASTFIVE
잡설전다
서울식물원


Vice Mayor I for Administrative Affairs
Women & Family Policy Affairs Office
Director General for Labor, Fairness, and Coexistence
Emergency Planning Bureau
Director General for Digital
Special Enforcement Division for Public Safety
Future Youth Planning Group
Welfare Policy Office
Economic Policy Office
Climate & Environment Headquarters
Urban Transportation Office
Tourism & Sports Bureau
Culture Headquarters
Citizens' Health Bureau
Lifelong Learning Bureau
Finance Bureau
Administrative Services
Vice Mayor II for Administrative Affairs
Vice Mayor for Political Affairs
Future Space Planning Group
Director General for Design Policy
Engineering Review Bureau
Safety Policy Office
Housing Policy Office
Urban Planning Bureau
Balance Development Headquarters
Green City Leisure Bureau
Water Circulation Safety Bureau

07

Seoul Metropolitan Government Budget Roadmap (2023)

〈Source: Director General Policy Planning Bureau, Budget Planning Officer for Seoul Metropolitan Cit〉

KRW **47** trillion **190.5** billion

Net Budget **6.7** % ↑

Education Office and Autonomous District

25.8%

KRW 10.7396 trillion

- KRW 6 trillion 773.6 billion supported by the Autonomous District
- KRW 3 trillion 966 billion supported by the Education Office

Social Welfare

38.4%

KRW 15.9506 trillion

- KRW 3 trillion 804.2 billion worth of Low-Income Class
- KRW 3 trillion 709.9 billion worth of the Elderly
- KRW 3 trillion 85.5 billion worth of Childcare for Women
- KRW 2 trillion 702.9 billion worth of Housing Welfare
- KRW 1 trillion 510.1 billion worth of the Disabled
- KRW 633.3 billion worth of Health
- KRW 504.7 billion worth of Education

Industrial Economy

2.4%

KRW 991.1 billion

- KRW 3 trillion 67.9 billion worth of Industrial Development
- KRW 3 trillion 23.3 billion worth of Jobs
- KRW 2 trillion 65.9 billion worth of Public Economy
- KRW 34.9 billion worth of Attraction of Investment

Parks and Environment

5.4%

KRW 2.2397 trillion

- KRW 1trillion 226. 7 billion worth of Water Supply and Sewerage
- KRW 5 trillion 74.2 billion worth of Park Green Land
- KRW 4 trillion 38.8 billion worth of Climatic Environment

Road and Transportation

6.3%

KRW 2.6073 trillion

- KRW 1trillion 172.6 billion worth of Public Transportation
- KRW 9 trillion 78.8 billion worth of Urban Railway
- KRW 3 trillion 56.7 billion worth of Road Construction
- KRW 99.2 billion worth of Parking Lots

Urban Safety

4.3%

KRW 1.7855 trillion

- KRW 1 trillion 28.3 billion worth of the Maintenance of Facilities
- KRW 5 trillion 17.1 billion worth of Flooding and Water Control
- KRW 2 trillion 13.7 billion worth of Fire Fighting Safety

Culture and Tourism

2.0%

KRW 852.1 billion

- KRW 381 billion worth of Culture and Arts
- KRW 226.3 billion worth of History and Culture
- KRW 163.1 billion worth of Sports Promotion
- KRW 81.7 billion worth of Tourism Promotion

Urban Planning and Housing Maintenance

1.0%

KRW 435.2 billion

- KRW 232.2 billion worth of Housing Environment
- KRW 203 billion worth of Urban Maintenance

Administrative Operation Expenditure
KRW 2.937 trillion (5.0%)
-
General Administration
KRW 1.74 trillion (2.4%)
-
Reserve Fund
KRW 152.6 billion (0.4%)
-
Financing Activities
KRW 2.7282 trillion (6.6%)

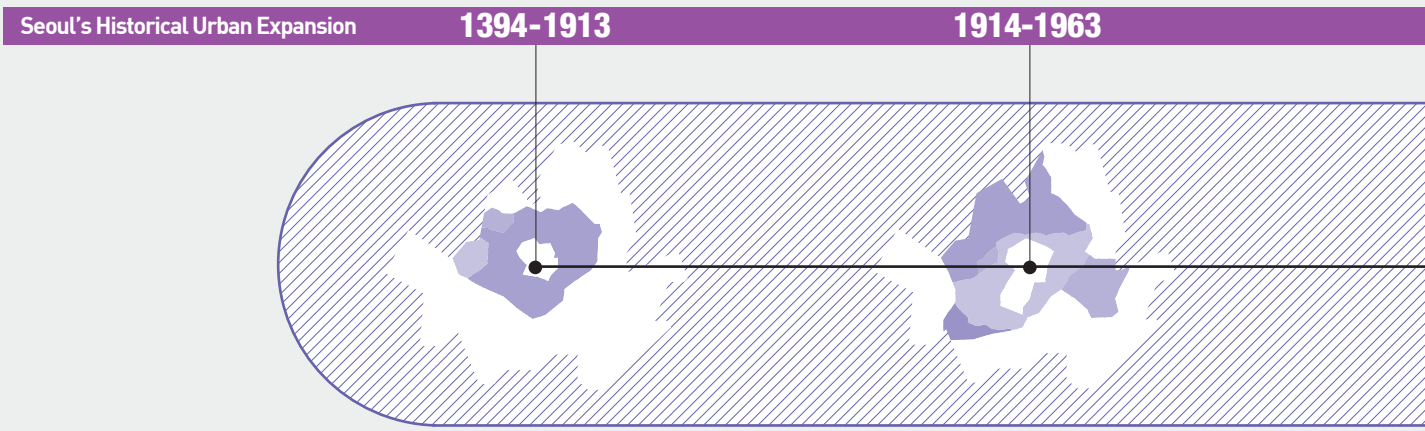
08 History of Seoul

The history of Seoul can go back some 2 millenium years when Wiryesong, the capital of Baekje, was Located at the Han riverside in the southeast parts of Seoul. Afterward, modern urban development started as Seoul was designated as the capital of the Joseon Dynasty (1392-1910) in 1294. With the introduction of electricity, railways, streetcars, parks, water supply, schools, and hospital facilities, in addition to an open port during the late 19th century, Seoul began to secure its framework as a modem city. Yet, the period of Japanese occupation (1910-1945) and streetcar industrialization led to the appearance of poor settlements across all corners of the city. The outskirts of Seoul were rapidly incorporated and transformed into new housing areas. A fter liberation in 1945, Seoul was renamed Seoul Metropolitan City, and fell into ruin in the aftermath of the Korean War (1950-1953). Having been ruined by the Korean War in the 1950s, Seoul began rapid economic growth and grew into a world-class megacity in half a century. Korea accomplished industrialization in less than 30 years, whereas European countries had to wait for 100 years before achieving it. Seoul became a smart city within 50 years, overcoming various urban problems to allow the 10 million population to live comfortably. The development phase of Seoul can largely be into three steps. Throughout the 1960s and 1970s, Seoul suffered serious urban problems with traffic congestion, environmental pollution, unlicensed settlement villages, and a shortage of housing caused by mass population inflows and insufficient social infrastructure.

To solve this problem, Seoul City focused on the establishment of basic infrastructures by expanding roads, building public apartments in non-Licensed settlements, Cheonggye expressway and Yeoeuido. With 1986 Asian Games and 1988 Olympics being hosted in the 1980s and 1990, a policy of improving and cleaning city was made. Mass apartment complexes were constructed, in Gangnam, Mokdong, Godeok, Gaepo, and Sangye areas, in response to the Han River Comprehensive Development Plan, the construction of Gangbyeon Expressway, Olympic Highway in the riverside, the opening of Subway Lines No 2~8, and the explosive housing demand of middle class. Mass infrastructure projects enabled Seoul to secure high-quality urban infrastructures. Nevertheless, the indiscreet development policy forced Seoul to experience the side effects of destroying natural environments, historic resources, and communities.

As an increasing number of citizens demanded better quality of life, with IT development in the 2000s, Seoul pursued new methods to create the sustainable city and state-of-art IT city. The classic example is the project of restoring the Cheonggyecheon Steam and creating a large park out of Seoul Forest. Digitalization was performed throughout the administrative sectors in Seoul.

In recent years, multiple projects have been facilitated in order to strengthen the competitiveness of Seoul by developing well-planned complexes, the great Hangang River for becoming a world-class waterside cultural city, and promoting a green eco civic center for the creation of green spaces in urban city centers and a garden city jointly developed with citizens for more green spaces.



The Steps and Major Policies of Seoul Urban Development

Stage 1 Expansion of Urban Infrastructure (1960-1980)

Characteristics

- 1960s: Post-war recovery and development focused on urban centers
- 1970s: Dispersing major functions and population to outer areas to ease excessive centralization

Major Projects

- Enactment of Land Compartmentalization and Rearrangement Projects Act (1966)
- Commencement of Cheonggyecheon Overpass Project (1967)
- Completion of the Korea Export Industrial Complex (Guro Industrial Complex) (1967)
- Construction of major bridges over the Hangang River (1966-1974: Yanghwa, Hannam, Jamsil, Cheonho)
- Completion of Comprehensive Development Plan for Yeouido (1969)
- Designation of development-restricted areas (1971)
- Announcement of the Yeongdong-Jamsil Area Development Plan (1973)
- Opening of Subway Line 1 (1974)
- Designation of Nanjido Waste Landfill (1977)

Stage 2 Urban Growth (1980s-1990s)

Characteristics

- 1980s: Implementation of city landscape and urban renewal projects for major international sporting events
- 1990s: Implementation of major urban renewal projects to systematically combat rapidly progressing urban decay

Major Projects

- Enactment of Housing Site Development Promotion Act (1980)
- Completion of Comprehensive Restoration and Development Projects for the Hangang River (1981)
- Construction of Jamsil Sports Complex (1982)
- Implementation of Comprehensive Hangang River Development Project (1982-1986)
- Opening of Subway Lines 2, 3, 4 (1984-1985)
- Completion of construction plans for massive residential complexes incl. Mok-dong, Sanggye-dong (1985)
- Launch of separate recyclable waste collection system (1992)
- Launch of bus card system (1996)
- Opening of Subway Lines 5, 6, 7, 8 (1990-1996)

Stage 3 Creation of Sustainable Smart City (2000-present)

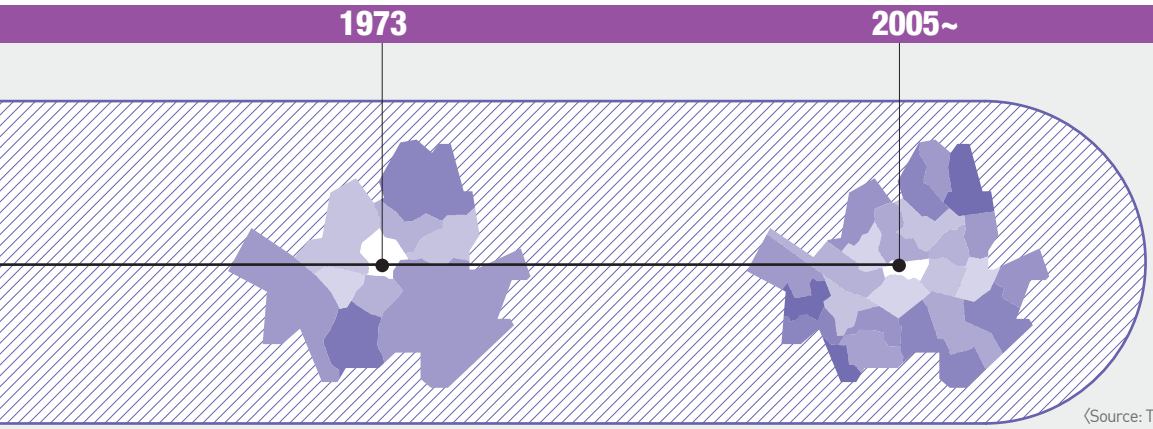
Characteristics

- Values placed on history, culture, and sustainable development
- Creation of Smart Seoul (digitalization of all municipal services)
- The Steps and Major Policies of Seoul Urban Development

Major Projects

- Construction of Nanji Ecological Park (2002)
- Cheonggyecheon Stream Restoration Project (2004)
- Mass transit system reforms (2004)
- Diesel vehicle pollution reduction project (2005)
- Volume-based food waste fee system (2005)
- Construction of Magok Smart City (2007-2016)
- Preservation of city center historic and cultural sites (2010)
- Launch of Eco-mileage System (2010) and One Less Nuclear Power Plant Initiative (2013)
- Promotion of Smart Seoul (4th Informatization Project, 2011-2015)
- Promoting the Green Eco Civic Center around Jongmyo ~ Toegyero (2022)
- Enacting the Basic Ordinance as to Seoul Metropolitan City Sustainable Development
- Opening Metaverse, in Seoul (2022)
- Establishing the Linkage of Smart Seoul Safety Network and Smart City Integrated Platform

〈Source: Research on Overseas Cities and Establishment of Strategic Exchange Plans (2013), p. 59〉



〈Source: The Housing Project PR Publication, p. 6〉


Parc1

Seoul's Transportation and Environment Policies

Seoul is creating a happy city where humans and nature coexist by utilizing limited resources in an efficient and rational manner to achieve compressed urban development and moving towards environmentally healthy and sustainable development.

Rate of
Housing Supply

94.2% (2021)

01 Compact City, SEOUL

Seoul is a very compact and efficient city in terms of land use. With one of the world's highest population densities, Seoul has one of the lowest amounts of land use per capita. If Seoul had been developed with the same density as a Western city, the forests mentioned above would have disappeared, and the areas would have been developed as urban space. The diffuse land use would have increased the burden on traffic and infrastructure and aggravated environmental pollution. One of the biggest achievements brought about by the development of compact towns in Seoul is green Seoul as a real "invisible" beauty.

Compressive urban development has drastically reduced CO_2 emissions per capita in Seoul. The Public Transportation Mode Share in Seoul has surpassed the 2/3 mark. Compact systematic land use has enabled Seoul to develop an efficient, convenient and environmentally friendly public transportation system. That has in turn empowered the city to grow into a world-class low-carbon city.

Seoul began to transform itself into one of the world's most sustainable modern cities in 1966 with the announcement of the 'Basic Urban Plan of Seoul.' Through the plan, Seoul predicted rapid growth and established a spatial order instead of the disorderly development that was prevalent at that time, secured necessary urban space to accommodate the increasing population, and designated greenbelts on the outskirts as spaces of coexistence between nature and humans. Seoul also put forward a plan for its secondary central business districts, thus improving the efficiency and effectiveness of its infrastructure such as transportation, water supply, sewerage and waste management.

〈Source: Prof. Gang Myeong-gu, The World and Cities, Vol. 8, p. 14-15〉

Compact City SEOUL

High density city

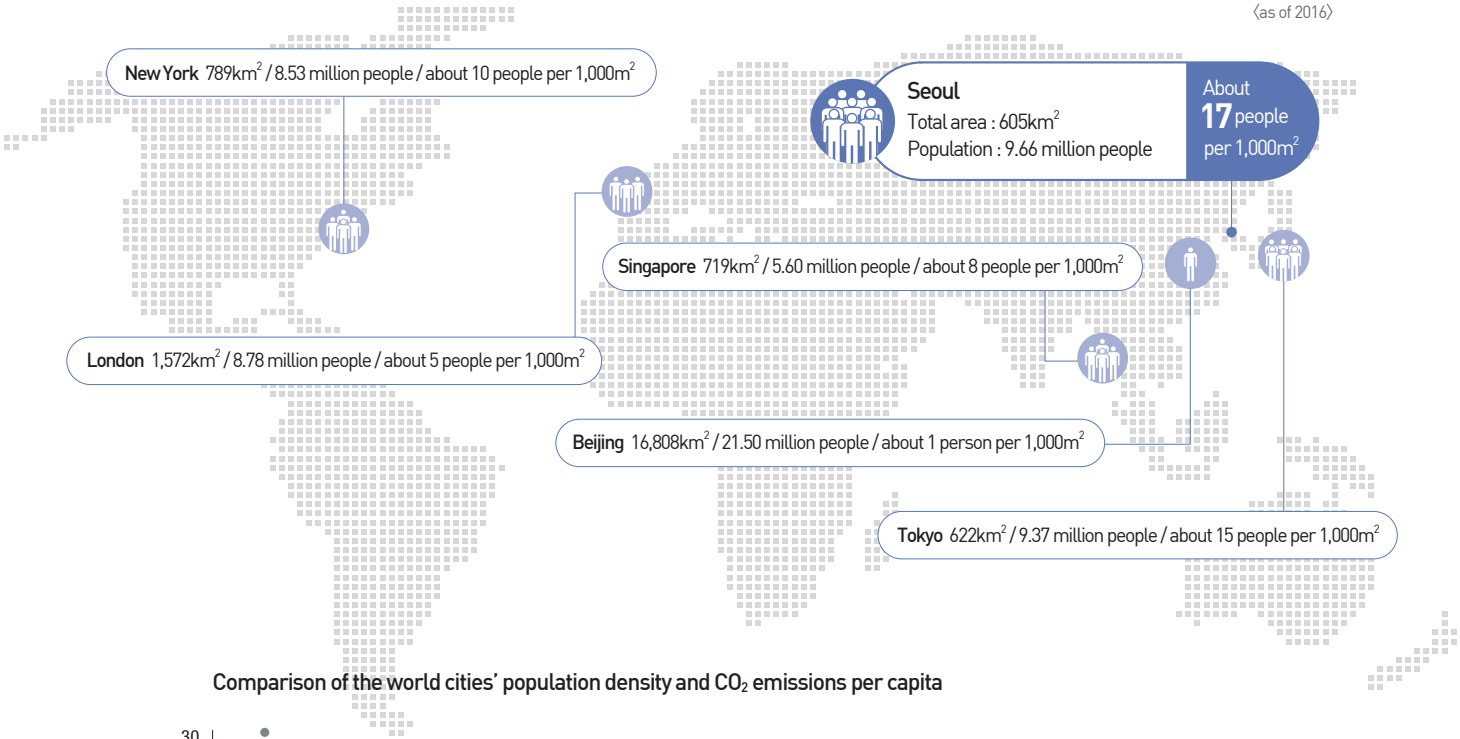
Advantages of a compact city

- Infrastructure investments ↓
- Land use efficiency ↑
- Green space ↑
- CO_2 emissions ↓

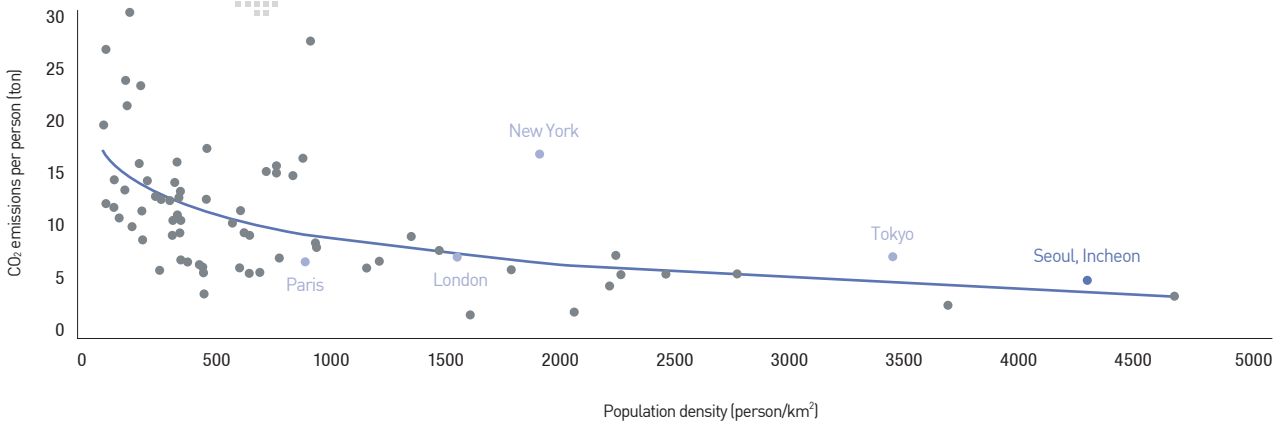
Example of the comparison of infrastructure costs

- Water supply and power supply lines (n)
  n = a+b
- One bus stop

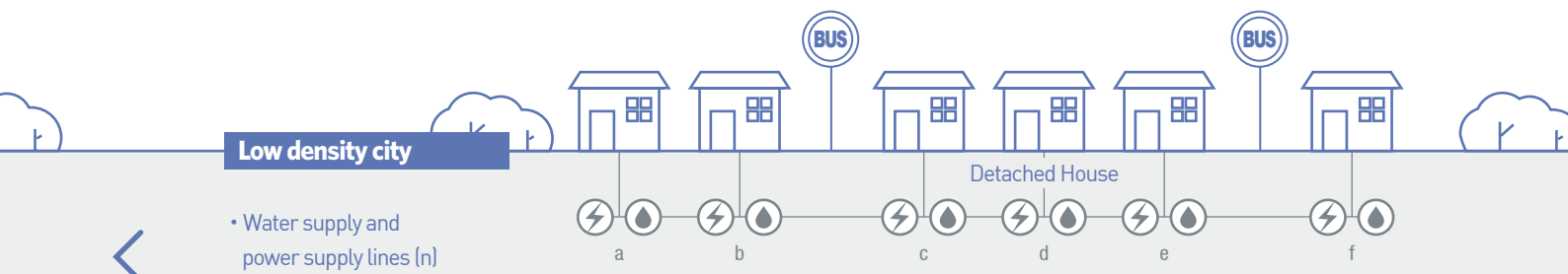
〈as of 2016〉



Comparison of the world cities' population density and CO_2 emissions per capita



〈Source: OECD(2012), Redefining "urban" A New Way to Measure Metropolitan Areas, OECD publishing, doi;10.1787/9789264174108-en〉



Low density city

- Water supply and power supply lines (n)
  n = a+b+c+d+e+f
- Two bus stops

〈Source: Prof. Choi Mack-joong, Seoul International Forum 2015〉

02 Urban Planning Policies

Seoul has prepared and operated a basic city planning system for the next 100 years in solving problems caused by rapid growth and bracing itself for the incoming low-growth period.

Urban Planning Charter | Seoul 2040 Comprehensive Plan | Living Zone Plan

〈Source: Urban Planning Division, the Seoul Metropolitan Government〉

01 Seoul 2040 Comprehensive Plan

Established in 2023, the "Seoul 2040 Comprehensive Plan" is the top official plan in the Seoul urban planning field amid the "new normal" era due to the COVID-19 pandemic and digital transformation. This planning presented the future images and strategies necessary for enhancing quality of life of citizens of Seoul and urban competitiveness, collecting opinions of people of each class, ranging from 120 civic planning groups, to 107 experts and 3,500 citizens.

02 Life Area Plan

Life Area planning or close-to-life urban planning was established for the first time in 2018, considering the local characteristics, within the scope of 'life area,' the space where citizens live their daily lives. A total of 5 life area plans and 116 local life area plans were set, collecting 34,833 opinions from 4,478 resident participants, over a 3-year period.

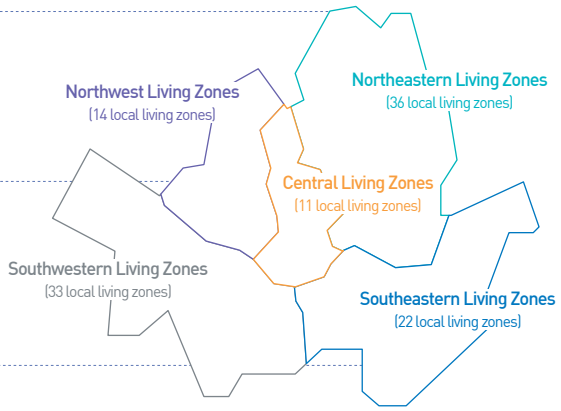
Vision
My Seoul Better to Live, Seoul of Everyone in the World

Seven Major Goals
Creating Life Area for Walk / Reorganizing Waterside Central Space / Three-Dimensionalized Infrastructures / Urban City Center Innovation / Establishing the Infrastructures of Future Transportation / Establishing the Net Zero Safety City / Urban Planning

Strategic Planning by Sectors
Housing Maintenance / Economic Industry / Climatic Environment / Safety. Prevention of Disasters / Traffic. Logistics / Socio-culture

Regional Plans
Urban Space | Land Utilization Plan | Urban Maintenance

Spatial Plan
Urban City Center | Northeast Area | Northwest Area | Southwest Area | Southeast Area



※ Detail : Urban Planning Bureau. Urban Planning Division

Seven Major Goals for Seoul 2040 Comprehensive Plan

Classification	Seven Major Goals		Major Descriptions
"Quality of Life" that can be Enjoyed, Anywhere	1	Multiple Everyday that can be Enjoyed by Walking, "Creating Life Area for Walk'	Having Multiple Everyday Life such as Housing, Jobs, Leisure Culture, and Commerce, within half an hour Walk
	2	Discovering the Potential of Waterside Space, 'Reorganizing into Waterside-Centered Space	Reorganizing into Local and Citizen Life-Centered Space by Attracting the Potential of Waterways
	3	Creating a New Urban Space 'Three-Dimensionalized Infrastructure'	Promoting three-Dimensionalized Human-Centered Infrastructures in order to Create a New Space in the Urban Civic Center
"Urban Competitiveness," Seoul's Growth Engine	4	Developing and Linking the Future Growth Basis ' Innovation of Function of Urban City Center'	Heightening the Function of Urban Civic Center and Finding the New Growth Industry Foundation, in order to Enhance the Competitiveness of Seoul
	5	Preemptive Response to Technological Development, 'Establishing the Future Transport Infrastructures'	Securing the Future Transport Infrastructures in order to Establish Effective Transportation Means
"Values and Direction" of the Future Seoul, in the Era of Great Change	6	'Establishing the Net Zero Safety City' in Preparation for Future Crises	Major Principles of Spatial Planning for the Net Zero City, Change to the Sustainable Seoul in Response to Climatic Change and New Mass Casuality Incidents
	7	Implementing Multiple Urban Images, 'The Great Change of Urban Planning'	Change to Flexible Urban Planning System in Response to the Future Urban Change

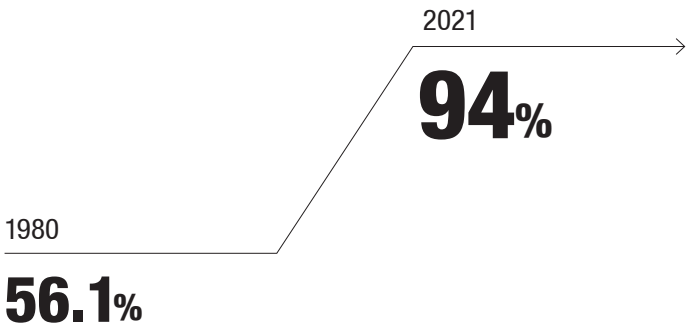
03

Housing Policies

〈Source: Housing Policy Division, the Seoul Metropolitan Government〉

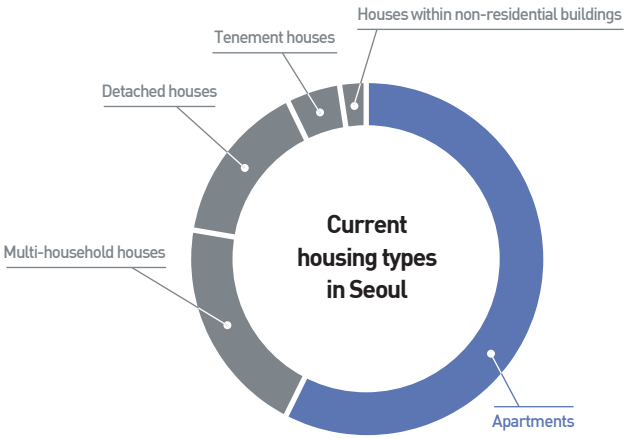
01 Diffusion Ratio of Housing

As the demand for housing increased explosively during the high-growth period, Seoul experienced a severe housing shortage. The government has supplied large-scale apartment complexes since the late 1980s to address chronic housing shortages. As a result, the housing penetration rate in Seoul reached 94% as of 2021.



02 Housing Types

Seoul housing types have remarkably changed, with compressed city and highly-dense urban development. The year 1970 alone witnessed that detached house accounted for more than 80% of Seoul houses and apartment reached approximately 4%. Since the mid-1970s, detached houses accounted for 26.9% and apartments surged to 42.8%, as of 2022 due to the supply of apartment complexes. Thus, apartments have become the house type that represents Seoul.



Apartments
42.8%
1,818,214호

Multi- household houses
18.6%
812,403호

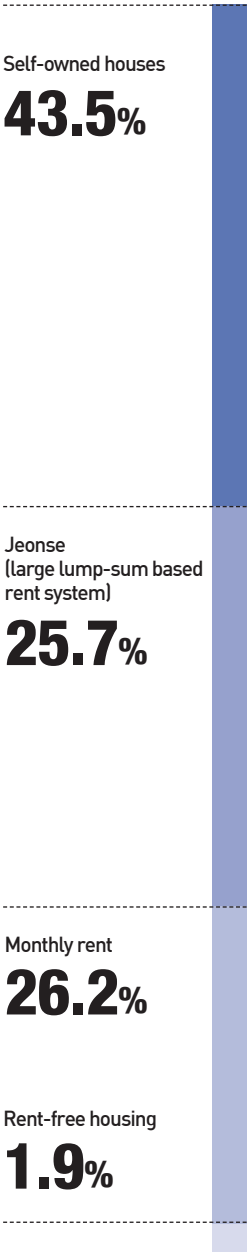
Detached houses
26.9%
299,473호

Tenement houses
2.7%
110,239호

Houses within non-residential buildings
2%
28,165호

03 Housing Occupancy Types

As of 2014, 40.2% of Seoul residents live in self-owned houses. This indicates that 58.4% of Seoul residents live in rented houses.



〈Source : Housing Policy Division〉

04 Housing Welfare Policies Public rental housing

As low-income households have suffered from high home prices and subsequent rent increases, the Seoul Metropolitan Government has contributed to their housing stability through the provision of various public rental housing. Recently, it has expanded the supply of public rental housing customized for citizens' life cycles (267,326 units as of June 2017) as the elderly population and single-person households continue to increase while the young suffer from a high unemployment rate and ever-rising housing costs.

Diverse rental housing customized by income level

The Seoul Metropolitan Government provides various types of rental housing to contribute to the stabilization of low-income citizens' housing: It builds large-scale rental housing complexes through residential land development, purchases existing multi-dwelling housing units including those set to be redeveloped/reconstructed and rents them out, or leases detached houses from home owners to rent them out.

Classification	Types	Contents	Rent Area	Mandatory Period
Construction	Lifetime rent	Rent for the lowest income group	25~49 m^2	50 years
	Public rent	Displaced residents, subscription savings account holders	25~84 m^2	50 years or 20 years
	Long-term rent for the poor	Citizens of income level-4 or lower	Less than 59 m^2	30 years
	Long-term jeonse	Jeonse-based rental housing for a minimum of 20 years	Less than 114 m^2	20 years
	Happiness Housing	New Conceptualized Rental Housing for the Housing Stability of the Young Generations	19~45 m^2	6 years (Young Generations) ~ 20 years (Including the Elderly)
Purchase	Redevelopment rent	Purchase of units to be redeveloped for rent	59 m^2	50 years
	Multi-dwelling unit/studio apartment purchase & rent	Purchase of multi-dwelling units & studio apartments for rent	Less than 84 m^2	20 years
	Long-term jeonse	Lease-Type Rental Housing for Persons of Middle Class Dwelling in up to 20 years	Less than 129 m^2	20 years
	Happiness Housing	New Conceptualized Rental Housing for the Housing Stability of the Young Generations	Less than 59 m^2	6 years (Young Generations) ~ 20 years (Including the Elderly)
	Youth Housing in Railway Station Sphere	Housing Supplied to the Youth Aged 19~39 Years	Public Rental Housing: Less than 45 ㎡ Public Support Private Rental Housing : 60 ㎡	4 years (Public Support Private Rental Housing)~ 10 years (Public Rental Housing)
Lease	Long-term guaranteed rent	Support for jeonse deposits (municipal budget)	Less than 60 m^2 Less than 85 ㎡ of a Family of More than 4	Up to 6 years
	Existing house purchase & jeonse	Support for jeonse deposits (government budget)	Less than 85 m^2	Up to 20 years

〈Source: PR Department, Seoul Housing & Communities Corporation〉

Construction & supply of various types of housing customized by stages in life

Seoul continues expanding the supply of tailor-made rental housing to niche groups, contributing to the stabilization of housing for numerous citizens who were not satisfied with existing public rental housing services.

Housing for Youth/ Business Persons / Entrepreneurs (1,028 units)

Dojeonsuk (#1) in Seongbuk-gu

Housing for Women, Multi-Cultural Families, Childcare, and Newlywed Couples

Mother-Child Safety House in Dongjak-gu

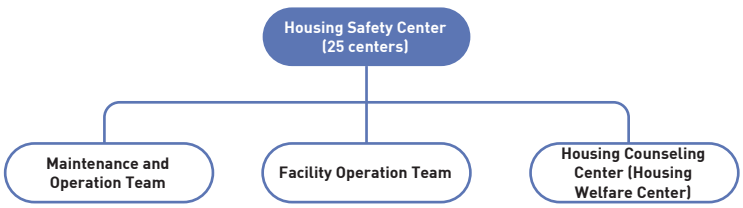
〈Source: Information Agency of Seoul Housing and Communities Corporation〉

Housing Welfare System

Seoul and Seoul Housing and Communities Corporation provide multiple one-stop integrated housing welfare services such as housing counseling, housing maintenance, facility maintenance, etc., through the Residental Safety Center.

Current Status	SH Local Center	Local Housing Welfare Center	Youth Housing Counseling Center
Major Roles	• Rental Housing General Maintenance • Rental Contract, Facility Maintenance	• Discovering and Supporting Housing Poor Class • Counseling, Case Maintenance, Resource Linkage	• Special Housing Counseling for the Youth and Newlywed Couples • Study and Maintenance on the Youth Housing Policies
Subject Party of Operation	SH	SH (9 agencies) and private (16 agencies)	Private
Number of Agency in Operation	A Total of 15 Agencies	A Total of 25 Agencies	(Previous) 1 Agency

Building Housing Safety Center



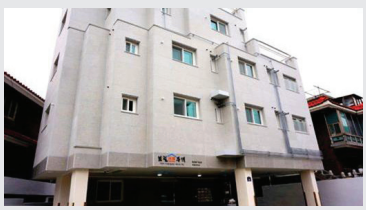
- Rental Housing Recontract
- Residence and Withdrawal of Rental Housing
- Paying Rents
- Selecting Maintenance Enterprise

- Rental Housing Maintenance
- Purchased Housing Maintenance

- Housing Counseling
- Housing Counseling for the Youth
- Housing Maintenance for a Family of 1 (Seoul, Consignment Business)

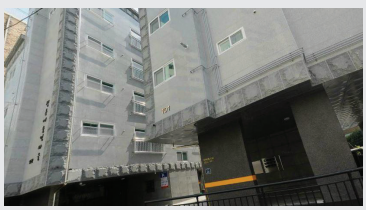
Planning for the Establishment of Housing Safety Center

Seniors/The underprivileged (486 units)



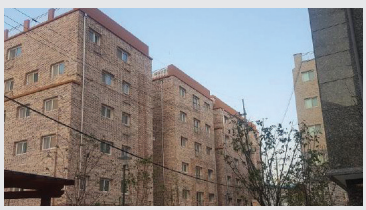
Single Senior House in Geumcheon-gu

Artists (367 units)



Artist Village in Seongbuk-gu

Others (Town Residents, Local Economy Workers, etc.) (290units)



Happiness Town in Majang, Seongdong-gu

04 Urban Development Examples

Seoul has been making continuous efforts to create a place where all citizens can live in a pleasant environment. Seoul realizes its vision of a city where residential areas and workplaces coexist and citizens can live a good life through urban development based on large-scale residential development and the balanced development of deprived areas combined with downtown development projects that pursue both regeneration and development.

Cheonggyecheon Stream Restoration Project

The Cheonggyecheon Stream flowing through the inner city center of Seoul lost its function as a stream as a result of being covered from 1925 to 1977. Due to the safety risks posed by the covering itself and the aging highway installed above, it was a longstanding challenge to the municipal government. To solve the problems, Seoul implemented the Cheonggyecheon Stream Restoration Project from 2003 to 2005 and removed both the concrete covering and the highway above it while restoring the natural, historical and cultural resources of the area to make it one of the city's most vibrant places (recognized by the Civil Engineering Conference in Asia in 2007, and others).

Underground Road Project

The highway installed for uncongested traffic has been considered an obstacle to urban development as it failed to carry out its role properly and caused a limit of access to waterside space and community severance. In response to it, Seoul opened Sinwolyeoui Underground Road for the first time, on April, 2021, and established Seobu Main Underground Road and World Cup-daegyo Bridge in September 2021. The overhead clearance of underground is being reorganized from vehicle-centered space to human-centered space. As the overhead clearance of Sinwol-Yeoui Underground Road, Gukhoe-daero will witness underground park accommodating the scale of five Gwanghwamun squares which is scheduled to be built by 2025. The overhead clearance of Seobu Main Underground Road, say, Seobu Expressway which is transformed from a motorway to a general road will enhance the accessibility of surrounding housing areas including the Anyangcheon Stream, and create green space such as park and SOC.

Magok Smart City

Location : Magok-dong & Gayang-dong, Gangseo-gu, Seoul
Area : 3,665,722㎡
Project period : Dec. 2007 - Dec. 2016

A Safe City

Magok Smart City has installed intelligent CCTVs in schools, parks and residential areas so that emergencies can be notified to the police for immediate response. In order to immediately detect disasters and provide information, it carries out real-time monitoring on the rise of rainwater and sewage due to torrential rain. It also carries out visual monitoring of its main roads to deal with accidents/disasters promptly.

Informationized City

Magok Smart City has laid fiber optic cables throughout the city to build a broadband high-speed information and communication infrastructure and connect various facilities to the Integrated Control Center through wired and wireless networks. Thus, instant communication is possible with the sensors installed in various field facilities such as CCTVs and water level meters. The smart city also provides citizens with WiFi service in parks, subway stations, bus stops and taxi stands (within a radius of 50-100 meters).

A Convenient City

Magok Smart City ensures smooth traffic flow and provides real-time traffic information. It collects and processes traffic information on detours, bottleneck points, accident-prone areas, intersections, and expected congestion areas in real time and provides it to citizens through the Seoul Transport Operation & Information Service. The smart city thoroughly enforces illegal parking and stop control throughout its major commercial areas, traffic congestion areas and crowded alleys.

Creation of Nanji Ecological Park

Seoul, which had been struggling with the disposal of garbage due to the adverse effects of rapid growth and urbanization, designated Nanjido, a floodplain in the lower reaches of the Hangang River, as a landfill in 1978 for all kinds of waste produced by the city. Approximately 10 years later, Nanjido became deadly, where leachate, filthy odors and noxious gases were generated. Also, the water quality of the Hangang River and atmosphere of the surrounding area became polluted, destroying the ecosystem of the nearby area.

In order to solve the problem, Seoul began the task in 1991 to turn the entire Nanjido area into an eco-friendly area. After about 10 years of planning, designing and construction from 1991 to 2002, Nanjido was revived as an eco-friendly residential complex, ecological park and World Cup Stadium. Most notably, Nanji Ecological Park stages diverse cultural programs and performances and runs camping grounds and a golf course. It has become an extremely popular spot in the city, attracting about 10 million visitors each year (won the UN-HABITAT Scroll of Honor award in 2010).

DMC (Digital Media City)

DMC, the abbreviation of Digital Media City was born through the redeveloped Najido Landfill and the surrounding areas as eco-friendly future new urban city center. DMC was created in the Sangam district of the northwest gateway to Seoul, at the size of 569,925 m2 (approximately 172,000 py). This city is the cluster of the world highest-level digital media and entertainment under the infrastructure construction work since 2002, and is the complex that develops, produces, and distributes state-of-art content that involves the convergence of environment, technology, culture, industry, investment, and innovation. The DMC, where some 550 enterprises are stationed, supports the active intercorporate networking and activities, provides highly added value services to consumers of state-of-art information media, and plays a role as the basis of major IT and R&D for the Northeast Asian region by creating the best corporate environment.

DDP (Dongdaemun Design Plaza)

Signs of urban degradation began to appear in Dongdaemun for reasons such as the loss of function of Dongdaemun Stadium as a sports facility and the damaged image of the fashion business district caused by indiscreet inflow of street vendors. To recover the function of the urban city center of Dongdaemun, urban renewal began. After Dongdaemun Stadium was demolished in 2007, DDP was built in 2009 and opened in March 2014, holding multiple cultural events such as exhibitions, fashion shows, new product presentations, forums, conferences, etc. This plaza is operated as the place that shares new products and fashion trends, shares knowledge through new exhibitions, and enables the experience of multiple designs, for the first time in the world, therefore playing a role as the source of the design and fashion industries.

Seoul's Transportation and Environment Policies

Seoul, where people and nature coexist with one another in harmony, is transforming itself into a city centered on convenient and safe public transportation on the basis of a pleasant natural environment through the implementation of advanced public transportation and environmental protection policies and systems.

Modal Share of
Public Transportation

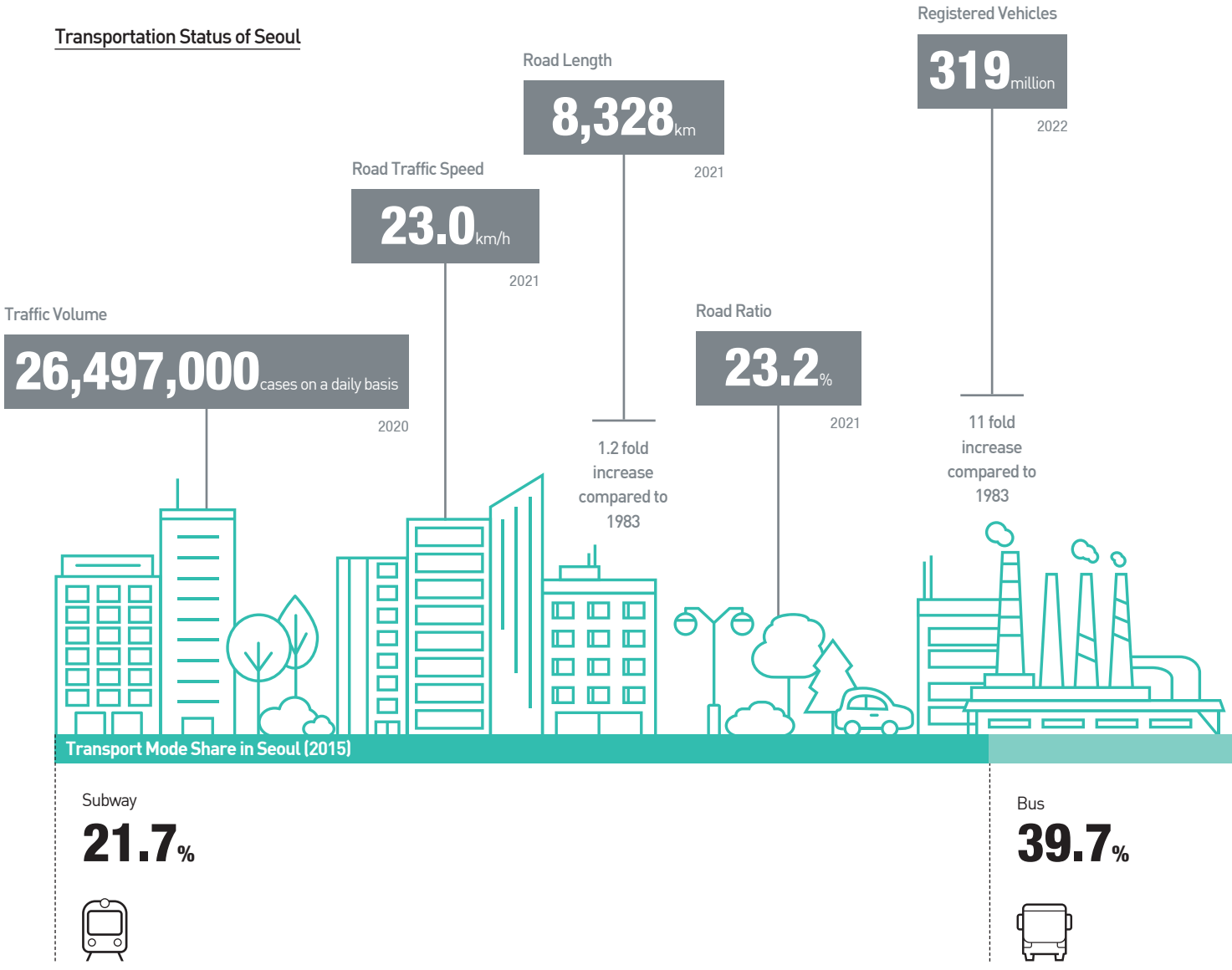
61.4% (2020)

01 Transportation Policies

〈Source : Urban Transport Office〉

With the income increasing after the 1980s, a surging number of automobiles began to rise. Compared to 1983, the number of automobiles increased more than 10 fold, but roads rose only to 1.2 times, which brought congestion. Taking this into account, multiple policies for reducing the use of automobiles and vitalizing public transportation means were facilitated.

Transportation Status of Seoul



Transport Mode Share in Seoul (2015)

Subway
21.7%

Bus
39.7%

Currently, Seoul has an advanced public transit system enabling its citizens to conveniently have access to anywhere in the city. The system has been a benchmark for many cities around the world.

Sharing Ratio of Public `Transportation Means

61.4%

2020

City Bus Vehicles in Operation

7,002

2023

Total Subway Length

376.1 km

2023

Daily City Bus Passengers

3,439,000 Passengers

2022

No. of Subway Lines

11 lines

2022

Number of City Bus Lines

382

2023

Daily Subway Passengers

4,288,000 Passengers

2022

Car

28.5%

Taxi

5.3%

Others

4.7%

01 Safe and Convenient Public Transportation

Smart Transportation Card

Seoul introduced the smart transportation system of a single transportation card available for buses, subway, and taxi. The transfer discount benefit of public transportation helps citizens have more convenient use of public means of transportation (Rate of Use of Transportation Card: 99%)

Systemic Fare System

Seoul reduces the burden of transportation fares from the public, and enhances the use of public transportation means through multiple fare discounting systems such as metropolitan integrated transfer discounts, early morning discounts, subway commuter tickets, and free passes for the elderly and the disabled.

Classification	Transportation Card		Cash
	Unit Rate System		
General	Individual Payment by Transportation Means	〈Basic Rate〉 Basic Rate for 10 km (free transfer) 〈Extra Rate〉 KRW 100 Extra for Every 5 km that exceeds 10 km	NA
Adolescents	20% Discount from Normal Fare		
Children	50% Discount from Normal Fare		

* In the case of transferring within half an hour (within 1 hour from 9:00 pm ~ 7:00 am the next day), transferring is applied for consecutive four times. But it is available when transportation cards are touched in card readers, when getting on and off bus.

Buses, Faster and More Convenient Than Cars

Semi-public bus operating system

For the change into public transpor tation-centered city, the semipublic bus system was introduced that Seoul would adjust bus lines, maintain charge income, settle fare by performance, and grant it to a bus organization.

Number of Bus Accidents
fall by **67.7%**
(1,944 cases in 2004 → 628 cases in 2022)

Level of Satisfaction of Services
An Increase by **41.4%**
(59.2 points in 2006 → 83.68 points)

Salary of Transport Workers
Increase by **86.6%**
(KRW 30,878000 in 2004 → KRW57.625000)

Environment-friendly bus

Diesel buses, a major cause of fine dust, are completely abolished. Currently, all the city buses that run Seoul are Compressed Natural Gas (CNG), electric, or hydrogen vehicles. Until 2026, about 3,000 buses are subject to be transformed into electric or hydrogen buses by supplementing 400 electric buses annually.

Circulating Bus (customized bus for commute)

This is a representative on-demand bus service that runs repetitively in only heavily congested vehicle zones, running 11 Lines.

BRT(Bus Rapid Transit)

BRT enhanced the punctuality security and operating speed, along with a level of satisfaction of citizens.

BIT (Bus Information Terminal)

Installed in bus stations, this terminal provides information on bus arrival, congestion, low-floor bus, and last bus.

Operation of Transit Stop in the Transport Hub of Seoul Transportation

This stop runs the metropolitan transit stop, at the boundary point, in order to reduce cars driving downtown outside the city, and raises the convenience of public transportation transit, gathering stations for each destination.

Bus Service in Consideration of the Transportation Vulnerable

This bus service expands low-floor buses and barrier free stations in application of universal design.

Supply Rate of Vehicles
An Increase by **70.5%**
(2022)

Night Bus

The Night Bus service was introduced to raise the convenience of transportation for citizens, running 139 buses of 14 lines, at 11:00 pm~ 6:00 am when it is difficult to use public transportation means.

❶ through ❽ lines

The Total Extension : 298.1km Number of Stations: 275 operated by Seoul Metro

* Seoul Transportation Corporation: Integrating Seoul Metro, the Operating Agency for Subway 1 through 4 lines, with Seoul Metropolitan Rapid Transit Corporation, the Operating Agency for Subway 5 through 8 lines, thereby, reborn as the biggest Subway Operating Agency in the country

Subway Line No. ❾

Length of Line : 40.6km, Number of Stations: 38

Light Rail

Seoul Light rail totals 2 (Ui-Sinseol Line, Sillim Line) as of 2023, and enables passengers to use subway within 10 minutes walk, around any parts of Seoul, with a total of 9 lines including lines scheduled to open.

Ui-Sinseol Line

- Length of Line : 11.4km, Number of Stations: 13 Operated by Ui-Sinseol Light Transit Inc.

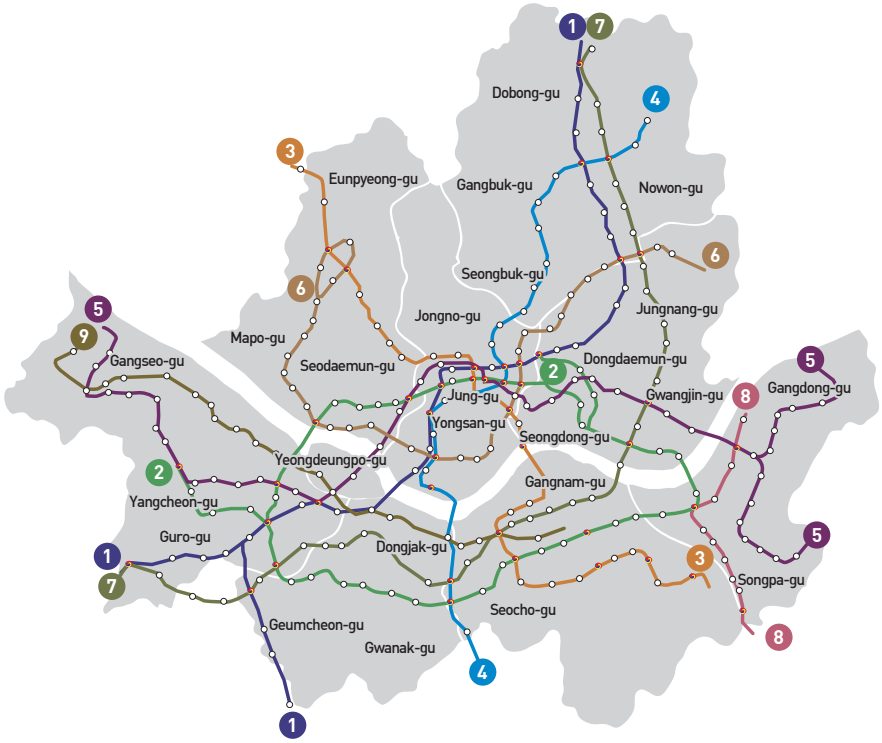
Sillim Line

- Route length 7.76km, 11 stations, Rotem SRS (Inc)

Seoul Metropolitan Subway, the Road for 8 Million Citizens, on a Daily Basis

Currently, Seoul Metropolitan Subway operates 11 lines that connects the urban city center and metropolitan areas. Seoul plans to extend the existing lines, expand light transits, establish the tight urban railway network all across the corners of Seoul, and raise the sharing ratio by 44.2% (2026).

- 11 Liners : 357.9km. 337 Stations (as of February, 2023)
- Used by 8 million passengers, on a daily basis



02 Human-Centered Sustainable Urban Transportation

Maintenance of Transportation Demand in order to Improve Traffic Congestion and Air Pollution

Green Traffic Area

In order to maintain the urban area where mass carbon emission and traffic congestion occur, 16.7km inside Seoul Hanyang lines was designated as the green traffic area for the first time in the country. Seoul pursues the method for increasing eco-friendly traffic means, by restricting the operation of vehicles of 5th grade, and expanding walking space, with the aim to reduce greenhouse gas and the traffic volume of automobile to 40% and 30%, respectively, by 2030.

Walk-Friendly City, Seoul,

Reorganization of Road Space

Seoul will reorganize vehicles-centered roadway into human-centered green traffic space Specifically, sidewalks will be expanded by reducing roadway and a convenient and safe walk environment will be created by extending the time of green traffic light signals.

Road for Human, and Clear Street : Seoul operates the street where pedestrians can walk freely and safely, and creates multiple rest spaces used to enjoy in the urban city center, and offers cultural art contents.

- Clear Streets **142** / **32,420**m

* Seoul directly operates three clear streets, Deoksugung Palace Road, Cheonggyecheon Steam Road, and Jamsugyo Bridge.

Bike, Eco-Friendly Low Carbon Traffic Means,

Public Bike Ttareungi : Public Bike Ttareungi of Seoul which started services in 2015 was expanded all across the corners of Seoul, in 2017.

- Scale of Installation (2023) : **43,500**bikes, **2,750**Bicycle Rental Stations

Expanding Bike Roads

1,315 Lines of , **1,316**km (2023)

Seoul TOPIS (Transport Operation and Information Service)

Maintaining the monitoring system of traffic conditions, at all times, and providing real-time traffic information
Minimizing complaints of citizens by detecting, identifying, and responding to unexpected situations swiftly

Monitoring of Traffic Conditions
- Constant Monitoring, for example, as to Traffic Congestion

Response to Unexpected Situations
- Identifying and Responding to Accidents, Construction, Assemblies, Climates, Disasters, etc

Access to Information about Traffic Conditions
- TOPIS Website, Mobile Web, App, VMS, and others

System Condition Checkups
- TOPIS System and Information Media

TOPIS Visit and Promotion
- TOPIS System and Control Room Visit and Promotion

Status of Collection and Provision of Traffic Information

- **Information on Collection : Collecting and using information on public transportation facilities, on its own or through the linkage system**
  - Collecting, saving, and using information, in real time or on an 1-year cycle basis, according to the characteristics and types of information
  - Connecting and collecting CCTV videos and information on notice of traffic broadcasting system, in order to cope with unexpected situations, instantly
  - Connecting and providing information on unexpected things in Seoul Emergency Operations Center (911) before extracting the types of fire and traffic accidents
- **Access to Information : Providing information media by processing or connecting collected information**
  - Providing swiftly and accurately notices of unexpected situations and information on assembly, construction, control, etc, through CCTVs.
  - Providing various information about communication, control, public transportation, statistical data, etc.
  - ※ Seoul Facilities Corporation / Information on Unexpected Situations from the Police Agency : Pre-Collecting through Mail on Weekend Assembly and Control Information
- **Information Providing Media: Website, Mobile Web, App, Twitter, VMS (Variable Message Sign), BIT (Bus Information Terminal)**

Treatment and Procedures of Situation Management

Monitoring on Unexpected Situations
- CCTV Video
- Information Connected (TBS/Police Agency/ 911/ Urban Express Way, and others)
- Website of Related Agencies / Public Notice/ Twitter, and others
- Report/ Press Media
- The Meteorological Administration

Determination on Severity of Ongoing Situations
- CCTV Video
- Photo Report

Traffic Information Access
- Website
- Mobile App (connect)
- VMS
- Twitter
- BIS(BIT)/BMS
- Open API

Related Agencies (departments) Radio
- Urban Transportation Office
- Related Departments (The National Emergency Management Agency / Press Officers/ 120
- Seoul Metropolitan Police Agency
- Urban Expressway Traffic Management Center

Monitoring on Situations
- CCTV Video
- Information Connected (TBS/ Police Agency/ 911/ Urban Express Way, and others)
- Website of Related Agencies / Public Notice/ Twitter, and others
- Report/ Press Media
- The Meteorological Administration

Completion of Situation on Information
- Website on Completion of Situation on Information VMS, BIT
- Information on Completion of Situation / Radio Twitter, Related Agencies (departments)

Roadmap on TOPIS

Organizations Connected
- Network Corporation (urban expressway)
- Police Agency
- Tmap
- T-money
- TBS (Traffic Broadcasting System)
- Construction and Management Administration

SEOUL TOPIS

Information
- Mobile
- Internet
- SNS
- VMS (Variable Message Sign), BIT (Bus Information Terminal)

Information Collection System
- Information Collection
- Information Connected

Information Processing System
- GPS Processing
- Information Prediction
- Information Search
- Information Analysis

Information Providing System
- Web Service (Webpage of TOPIS)
- Traffic Situation Board (director/ chief department)
- Mobile Service (Seoul Traffic Portal)
- Integrated Disaster Prevention Control Room

Management System
- System Operation
- Data Management

Video System
- Steaming
- Video Access

02

Energy Policies

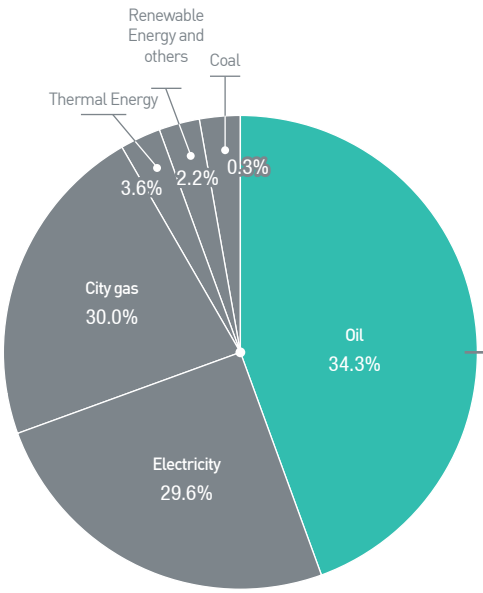
〈Source: Environmental Policy Division, the Seoul Metropolitan Government〉

Seoul City makes an energy plan every five years and announced the regional energy plan in 2020. Seoul sets the vision of Seoul, the city of energy conversion that shares together with the public, focusing on community practice-based policies of strengthening energy demand maintenance, dispersed generation, and energy welfare in harmony with the environment and safety.

Eco-friendly energy that can be found in solar energy zones is the most basic energy source in response to climatic change by creating the effect of reducing the emission of greenhouse gas and air pollutants caused by thermoelectric power generation. Seoul plans to expand from 305 MW solar panels as of late 2020, to 800MW, by 2030. The city facilitates the expansion of eco-friendly energy appropriate for urban city centers, such as fuel cells, geothermal power generation and hydrothermal energy, including solar panels.

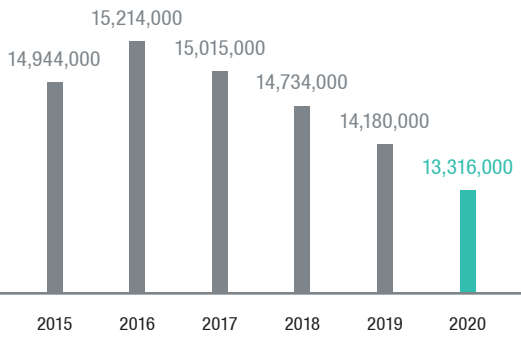
Energy consumption by energy source

2020



Energy consumption

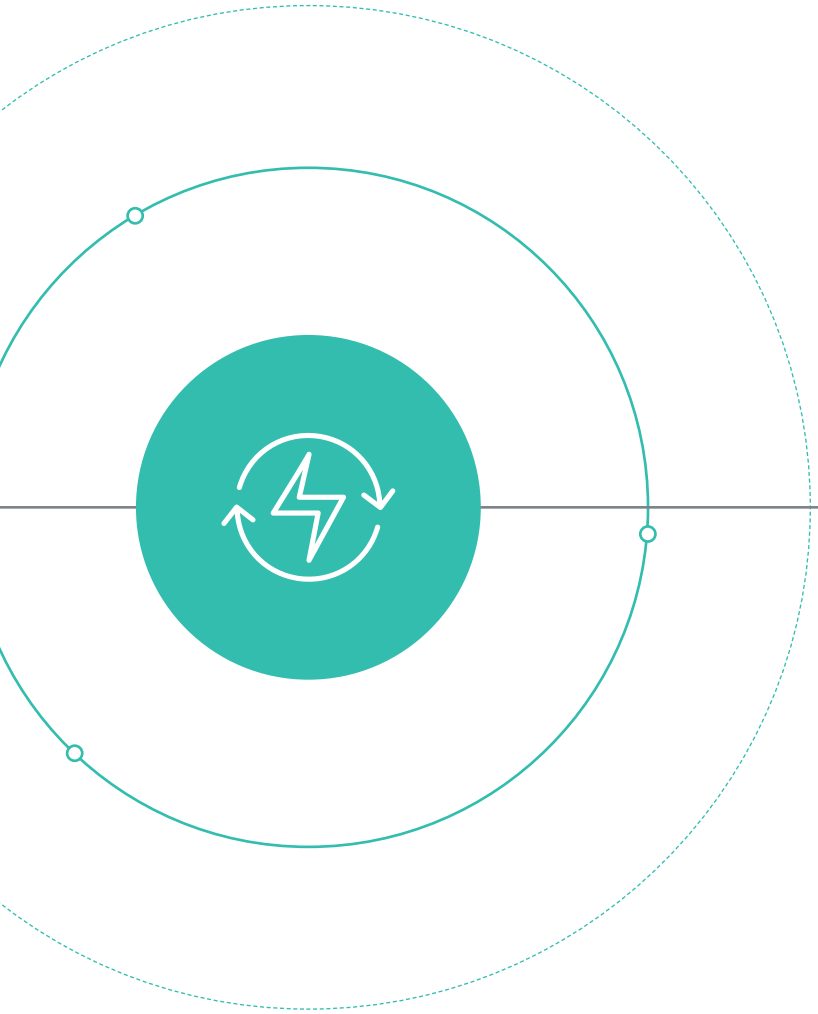
Unit : TOE



※ TOE (Ton of Oil Equivalent): TOE is a unit of energy defined as the amount released by burning one ton of crude oil. It is an imaginary unit created to compare the efficiency of various energy units.

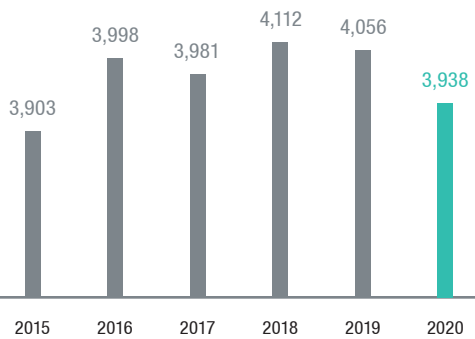
For fuel cells, Seoul aims to secure 1 GW by 2050. To attain this, Seoul will make private investments in attracting fuel cell power plants at unused sites in city-based facilities such as Arisu Filtration Center and Sewage Treatment Center, and will take measures to establish new related regulations and policies of expanding and installing fuel cells in buildings.
In addition, Seoul manages power plants supplying district heating with the use of waste heat generated in the process of incinerating domestic waste in five resource recovery facilities. The power generation capacity of domestic waste incineration plant totals 2,898 tons. Incineration and power are supplied through district heating and KEPCO (Korean Electric Power Corporation), respectively. The output of incineration would be expected to increase due to the efficient operation and technology of resource recovery facilities. It is anticipated that the output of sludge would decline, thanks to advanced sewerage treatment facility technology, while the output of bio-gas would rise, thanks to the technological development of sewerage treatment, for example, the better efficiency of the operation of Sewerage Treatment Center. Seoul is scheduled to expand private engagement in CHP (Combined Heat and Power Generation) facilities, and the bio-gas project for city gas supply based on it. Seoul will make constant efforts to actively reuse waste and waste resources occurring in surrounding environments, use it as energy sources, and create a resource cycling city.

〈Source: Energy White Paper〉



Electric energy consumption

Unit : GWh



Current status of new and renewable energy

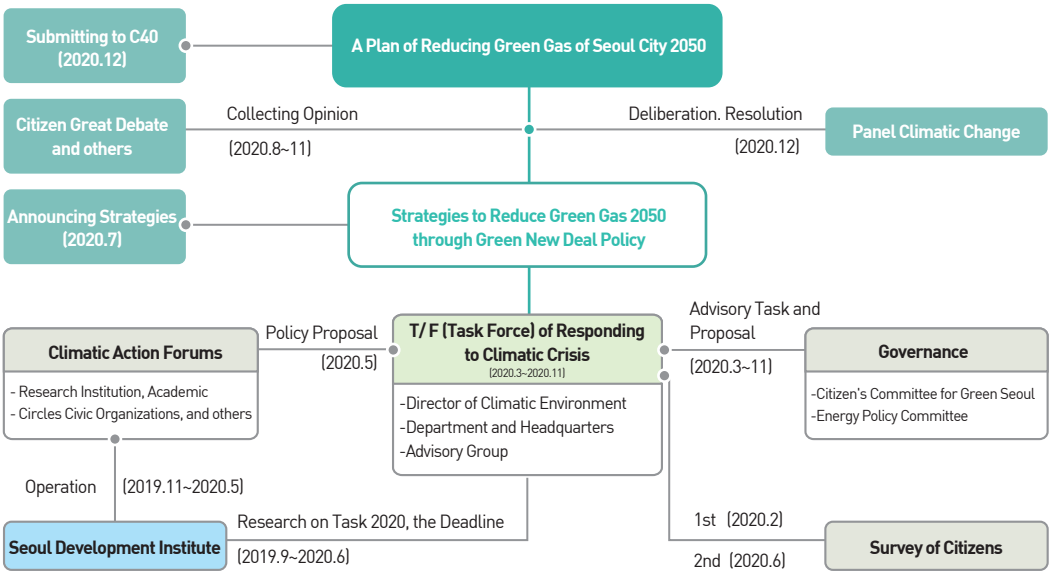
Classification	2015	2016	2017	2018	2019	2020
Output	335,139	316,806	350,881	388,944	361,289	303,074
Consumption	245	251	242	270	284	297

03

2050 Seoul Climate Action Plan (CAP)

Seoul's climate has shown great change over the last 100 years. The annual average temperature and annual rainfall trended upward. The frequency of severe climatic change, such as excessive heat, icy currents, tropical nights, etc., continue to rise. Seoul, an overcrowded city, could suffer more serious damage due to climatic change than any other areas. Therefore, Seoul devised the 2050 Seoul Climate Action Plan (CAP) by organizing a Climate Action Forum, going through the course of Seoul Development Institute's research and collecting citizen opinions, and set a goal to become a net zero city by 2050. Seoul joins in the activities of accomplishing the goal of limiting the rise of global average temperatures to 1.5 degrees in accordance with the Paris Agreement.

The System to Establish and Accomplish a Plan of Reducing Green Gas 2050



Strategies to Reduce Greenhouse Gas, Seoul Version Green New Deal

Seoul established strategies to reduce greenhouse gas by 2025, creating priorities based on the ratio of emissions of greenhouse gas.

Buildings: Change to Zero Energy Building

- Promoting Green Remodeling of Obsolete Buildings
- Obliging to Transform New Buildings into Zero Energy Buildings
- Introducing the Standard System of the Total Amount of Building Greenhouse Gas

Leading Transportation and Green Mobility

- Accelerating the Prevalence of Eco-Friendly Cars
- Reorganizing all the Road Spaces for Eco-Friendly Mobile Means
- Expanding Zero Emission Zone

Reducing Waste Matters and Zeroing Waste Direct Purchase

- Vitalizing Recycling → Reusing → Renewing
- Zeroing Domestic Waste Direct Purchase
- Developing the Resource Cyclical Industry

Energy: Accelerating Energy Conversion

- Expanding the Supply of Solar Panel
- Expanding New Renewable Energy such as Fuel Cell
- Creating Smart Energy City

Securing Forests and Green Lands, Dismantling Green Gas

- Promoting Seoul, the City of Parks, by Expanding Urban Forests
- Project of Preventing the Desertification of Northeast Regions (such as Mongolia)

Citizen Participation : Joining the Activity of Reducing Greenhouse Gas, with Citizens

For a successful CAP (Climatic Action Plan), citizen participation is of great importance.
Seoul has made joint efforts with citizens to establish a policy and practical system of climatic change.

1. A Survey and Great Citizen Debate have been conducted in order to establish CAP
2. Operation of Eco and Automobile Mileages

Strategies for the Adaptation to Climatic Change: Realizing a Healthy and Safe City for the Adaptation to Climatic Change

Field of Health : Strengthening the Competence of Citizens' Adaptation

Response to Excessive Heat
- Establishing Excessive Heat Escape Facilities and Safety Systems
- Devising the Measures to Protect and Manage the Vulnerable to Excessive Heat

Response to Infectious Diseases
- Establishing and Strengthening the Response System of Infectious Diseases
- Strengthening the Management on Food Poisoning

Coping with Air Pollution
- Strengthening Health Care of the Vulnerable to Air Pollution
- Strengthening the Surveillance and Prevention of Air Pollution

Field of Water Management : Establishing the Stable Water Management System

Devising the Stable Water Management System
- Strengthening the Stable Water Reuse System
- Establishing the City Water Supply System in order to Solve a Shortage of Water Caused by Droughts

Conserving and Managing Clean and Healthy Water Environment
- Improving Water Quality by Reducing the Emission of Water Pollutants, Annually
- Establishing the Private-Public Joint Monitoring System for River Pollution

Field of Disasters and Catastrophes : Strengthening the Response to Urban Disasters and Catastrophes

Coping with Damage from Storm and Flood
- Establishing the Competence to Cope with the Emergency Situations such as Storm and Flood
- Raising the Competenceto help the vulnerable recover from storms and floods
- Strengthening the Safety of Flooding in the Vulnerable Areas to Flooding
- Enhancing the Ability to Cope with Downpouring, by Systemically Maintaining and Expanding Drainage Facilities,

Response to Heavy Snow and Icy Current
- Reducing Damage from Heavy Snow, Establishing the Safety System
- Strengthening the Snow-Removing System against Heavy Snow, at a Regional Level
- Strengthening the Competence to Adapt to Icy Current and Meteorological Disasters

Field of Forest and Eco-System : Strengthening the Health and Diversity of Eco-System

Preventing and Coping with Forest Disasters
- Establishing the System to Prevent and Manage Forest Disasters
- Increasing the Recovery of the Function of Forests

Conserving Bio-Diversity
- Strengthening the Monitoring System for the Vulnerable Species to Climatic Change
- Conserving and Restoring the Eco-System

Increasing the Function of Urban Green Land
- Preventing and Coping with Flood Damage in Park Facilities
- Expanding Urban Green Land
- Vitalizing Urban Agriculture

04

Waste Policies

〈Source: : Status of the Occurrence and Disposal of Wastes all around the country〉

With the economic development and consumption increasing during the 1970s and 1980s, a surging number of waste emissions occurred in Seoul. Yet, the garbage separation and disposal system along with volume-rate garbage disposal system that were introduced during the 1990s led to the drastic decrease of waste emissions. 67.1% (6,487.7) of 9,673.4 tons of domestic waste on a daily basis is being used, and as of 2020, 23.1% (2,240.1) is incinerated.

Heat generated by incineration treatment is recovered to produce heat energy and power. Through this, Seoul is reborn as a wortd-class resource cyclic city through a policy of recycling waste and resource recovery technology.

Basic Directions of Seoul's Waste Management

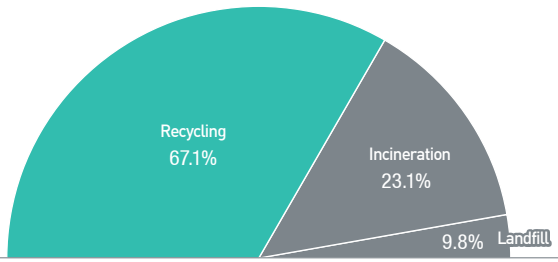
Prevention & Reduction
Volume-based fee system

Recycling
Separate disposal of recyclables, urban mines

Incineration
Operation of resource recovery facilities

Disposal
Landfill

Status of Seoul's Residential Waste Treatment



Out of 9,438 tons of daily residential waste,

67.1% is recycled

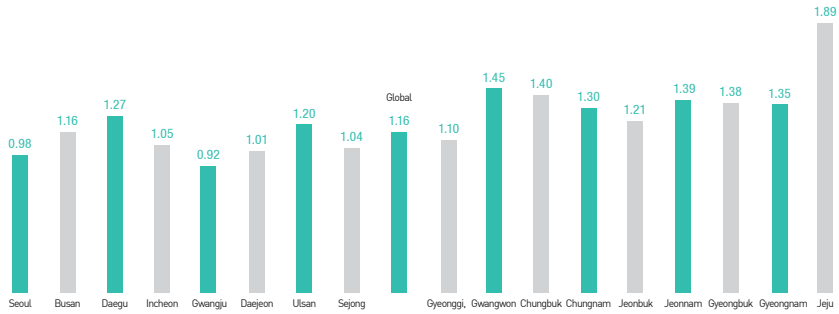
- Seoul will reduce green gas waste emission by promoting the project of zeroing direct purchase of domestic wastes.
- Seoul intensively reduces disposable goods and packed wastes through the Zero Waste Seoul Project and finds the foundation for increasing recycle culture by creating and operating a recycle center.
- The aims to reduce landfill waste to zero by 2026.

01 'Volume-based Fee System' that Reduces Waste Generation and Considerably Boosts the Waste Recycling Ratio

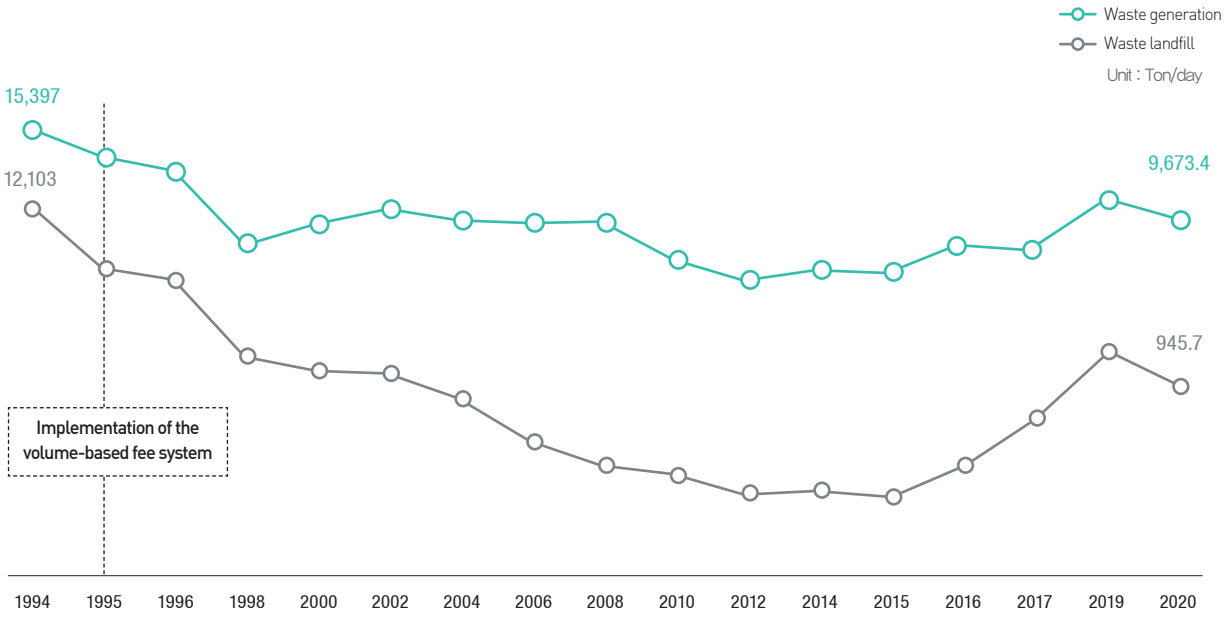
The volume-based fee system applies fees based on each household's waste generation. It embodies the 'Polluter Pay Principle' that calls on polluters to pay fees required to clean up environmental pollution. Since its launch of a volume-based fee system in 1995, the SMG has succeeded in reducing the volume of residential waste and increasing the quantity of waste recycling to a remarkable degree.

Domestic Waste Emission, per person on a daily bais, according to each area

(Kg/Day/Person)



Trends of Residential Waste Generation



02 Separate Disposal and Collection of Recyclables

Seoul citizens separately dispose of recyclables such as paper, paper cartons, plastics, bottles, metals and vinyl.

03 Recycling Stations to Where Residents Bring Their Own Recyclables

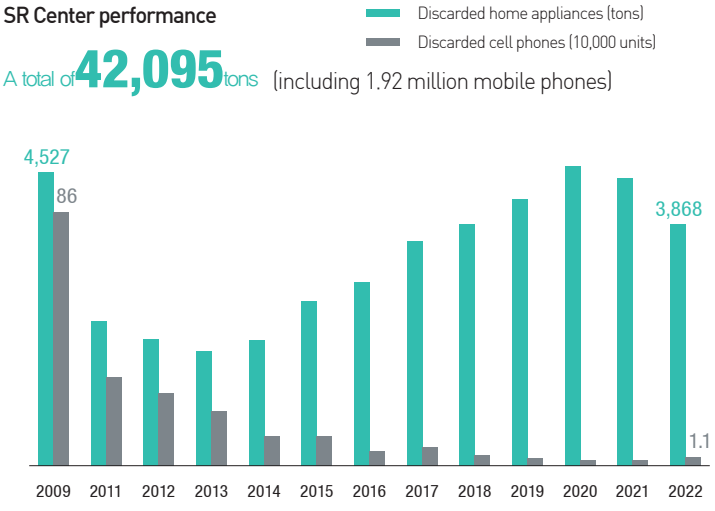
Seoul implements a project of recycle stations for the separation and collection of recycling goods, targeting housing areas and urban lifestyle housing. The number of the related agencies that are being managed amounts to 13,417 as of 2022.

04 Urban Mines to Promote Recycling of Household Appliances

Seoul is implementing the urban mining project to extract and recycle precious metals from discarded electronics while creating jobs for socially vulnerable groups. Seoul established the Seoul Resource Center (SR Center) in 2009 and has since successfully transformed waste home appliances into valuable resources.

SR Center performance

A total of **42,095** tons (including 1.92 million mobile phones)



Efficiency of urban mining

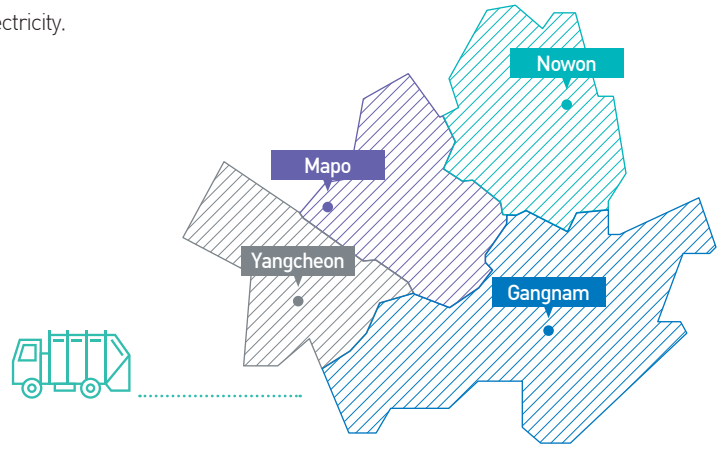
From 1 ton of gold ore →	5g of gold
From 1 ton of home appliances →	20g of gold
From 1 ton of PCs →	52g of gold
From 1 ton of cell phones →	400g of gold

05 Resource Recovery Facilities, from Waste to Energy

Seoul operates resource recovery facilities for the hygienic disposal of household waste and the solution of the shortage of dump space. The resource recovery facilities recycle the waste heat generated from waste incineration to supply heating energy and produce electricity.

Areas covered by resource recycling facilities

- The area covered by the Gangnam Resource Recovery Facility
- The area covered by the Nowon Resource Recovery Facility
- The area covered by the Mapo Resource Recovery Facility
- The area covered by the Yangcheon Resource Recovery Facility



Current status of resource recovery facilities

2022

Classification	Yangcheon	Mapo	Nowon	Gangnam
Capacity	400 tons/day	800 tons/day	900 tons/day	900 tons/day
Construction period	1992.12-1996.2	2002.11-2005.5	1992.12-1997.1	1994.12-2001.12
Project cost	₩ 31.8B	₩ 166.5B	₩ 101.1B	₩ 101.1B
Land area (floor area)	114,627m^2 (13,166m^2)	58,435m^2 (30,558m^2)	46,307m^2 (29,035m^2)	63,818m^2 (27,195m^2)
Waste input	104,934 tons	167,430 tons	164,849 tons	238,957 tons
Waste incineration	104,176 tons	169,781 tons	163,785 tons	238,769 tons
Electricity generation(kWh)	9,139	22,628	-	-
Electricity sales (kWh)	2,480	7,879	-	-

05

Water Supply and Wastewater Policies

〈Source: Water Circulation Safety Bureau / The Office of Waterworks, the Seoul Metropolitan Government〉

Until 50 years ago, Seoul had suffered from serious water scarcity and river pollution due to insufficient water supply and wastewater treatment facilities. With its continuous efforts to expand water supply and wastewater treatment facilities including water and sewage treatment plants since the 1960s, Seoul achieved 100% establishment of water supply and sanitation in 1991 and 1998, respectively. Through the establishment and operation of cutting-edge water supply, sewage, and waste management systems, Seoul supplies world-class tap water to its ten million citizens in the most stable manner. Seoul treats 5 million tons of wastewater including household sewage and industrial wastewater in the safest and most sanitary manner to secure healthy environments for both humans and nature.

Seoul's Water Supply

2021

Population served	9.73 million
Water supply ratio	100%
Production capacity	4.80 million m^3/day (advanced water treatment 3.57 million m^3/day)
Daily production	3.10 million m^3/day (capacity 3.56 million m^3/day)
Average daily supply per person	300L (maximum 346L)
Water purification centers	6 (two treating more than 1 million tons)
Intake stations	4
Revenue water ratio	95.5% (non-revenue water 4.9%)
Service reservoirs	102 (capacity 2.45 million m^3/day)

Seoul's Wastewater Treatment

2021

Treatment areas	4
Drainage areas	16
Drainage spots	163

Wastewater treatment ratio 100%

- Length of sewer lines: 10,616km
- 4 Water reclamation centers (Seonam, Nanji, Jungnang, Tancheon)
  - Treatment capacity 4.98 million m^3/day

Flood Control Facilities

Sewer pipes +

Rivers (national, local) 40 | Detention basins 52
Rainwater pumping stations 119 | Rainwater harvesting systems 33

01 Thorough Water Quality Management from Water Source to Tap

All 171 water analysis items, more than those that WHO recommended, were diagnosed as being appropriate. According to the result of 167 water analysis items of UL (Underwriters Laboratories Inc) and NSF (National Sanitation Foundation), they were diagnosed as being appropriate for potable water per the US EPA.

- Seoul conducts a water analysis of water produced in Arisu Filtration Center every day, administers a test about faucet Arisu around 450 areas in Seoul on a monthly basis, and safely manages water quality through a water analysis of 70 areas for the course of water supply on a quarterly basis.

Comparison of the number of water quality inspection items

WHO	163
Seoul	171
USA	112
Japan	125
EU	52

A Comparison of Water Quality in Major International Cities 2020~2021)

Name of City \ Water Item		Coliform bacillus	Lead	Iron	Benzene	Residual Chlorine	THM (total trihalomethane)	Turbidity
Seoul 1)	Reference Rate (mg/L)	Undetected /100 mL	0.01	0.3	0.01	4	0.1	0.5 NTU
	Detection Threshold Level (average_	Undetected	Undetected	Undetected	Undetected	0.27	0.032	0.07
New York 2)	Reference Rate (mg/L)	Negative	0.015	0.3	0.005	4	0.08	5 NTU
	Detection Threshold Level (average_	Negative	Undetected	0.029	Undetected	0.6	0.056	0.8
Tokyo 3)	Reference Rate (mg/L)	Undetected	0.01	0.3	0.01	1	0.1	2° (1 NTU)
	Detection Threshold Level (average_	Undetected	Undetected	Undetected	Undetected	0.4	0.012	0.1° (0.05 NTU)
London 4)	Reference Rate (mg/L)	Undetected /100 mL	0.01	0.2	0.001	Undetected	0.1	4 FTU
	Detection Threshold Level (average_	Undetected	0.0009	0.0042	Below 0.0001	0.64	0.019	Below 0.17°
Toronto 5)	Reference Rate (mg/L)	Undetected /100 mL	0.01	0.3	0.001	3	0.1	5 NTU
	Detection Threshold Level (average_	Undetected	0.0005	0.03	Undetected	1.7 (Total)	0.011	0.3

02 State-of-the-art System to Produce the Best Tap Water and Provide a Stable Supply

To produce delicious and healthy water and provide a stable supply, Seoul applies scientific and systematic management systems that draw upon state-of-the-art water purification technologies combined with IT technologies throughout the entire process.

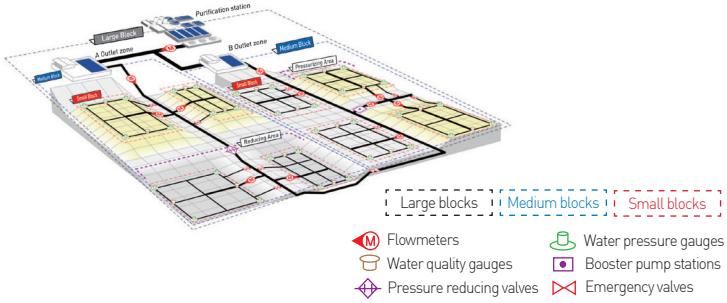
Major systems for tap water production, supply and management

Water purification	Advanced water treatment system	Seoul has added an ozone and granular activated carbon process with excellent adsorption power to the existing water treatment process to remove unpleasant taste, odors and environmental pollutants. It has installed advanced water treatment facilities to all its six water treatment centers.
	Increased frequency of chlorine disinfection	As a technique to reduce the smell of chlorine when drinking tap water, Seoul has increased the frequency of chlorine disinfection from once to twice and significantly reduced odors.
	Application of membrane filtration	Seoul uses a water purification method that separates and removes impurities from raw water by using a membrane as a filter medium. Seoul received eight patents related to membrane filtration.
Water supply	Uninterrupted water supply through reservoir expansion	Through indirect water supply supported by reservoir expansion, Seoul has prevented pipes from bursting due to pressurization and can supply water for up to 16 hours without interruption in case of emergencies.
	Double pipe system	Seoul prepares for crises through the installation of double pipelines between water purification plants.
Management	Arisu Integrated Information System	Seoul monitors all the main facilities of its waterworks with CCTV, and takes action as dictated by a 'real-time integrated response management system' in the event of an emergency.
	Seoul Water-Now System	Seoul inspects and manages water quality from raw water to purified water in real time.
	Waterworks Geographic Information System	Seoul collects and analyzes geographic information related to waterworks facilities to prevent accidents.
	Mobile Arisu	Seoul provides information on the suspension of Arisu water supply and risk of burst pipes and receives complaints about the water supply through mobile devices.

03 Systematic Water Management Proven through One of the World's Best Revenue Water Ratios

Seoul replaced obsolete water pipes causing water leaks and rust in the course of water supply, blocked complex water pipelines and established flow meter and flow monitoring systems to make the water flow rate one of the best in the world. When Seoul Waterworks Authority was launched in 1989, the water flow rate amounted to 55.2%. In 2021, the rate has risen to a world-class rate of 95.7%. Seoul's scientific water operations help the city boast low water charges compared to any city in the world.

Management systems to improve the revenue water ratio



Waterworks Block Management Seoul divides its water supply network into 106 large, medium and small blocks to facilitate leakage identification and consumption analysis.

Improvement of Water Supply Pipes Seoul has replaced leaking antiquated pipes with durable dust-free stainless steel pipes and ductile iron pipes (99.7% until 2021).

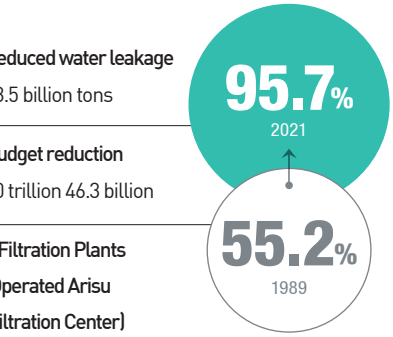
Scientific Supply Management Seoul has installed flowmeters and flow monitoring systems for its water pipes, water supply areas, blocks, pumping stations, and reservoirs to manage water inflows and outflows accurately.

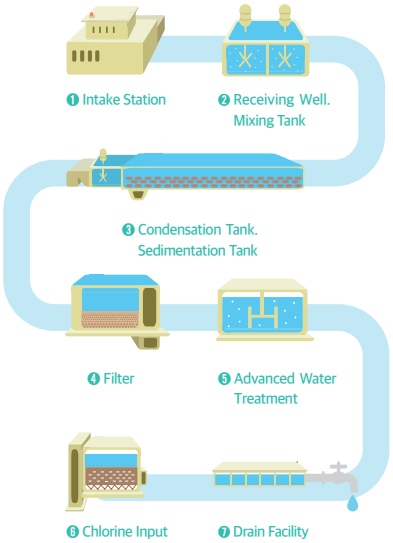
Impacts of improved revenue water ratio

Reduced water leakage
13.5 billion tons

Budget reduction
10 trillion 46.3 billion

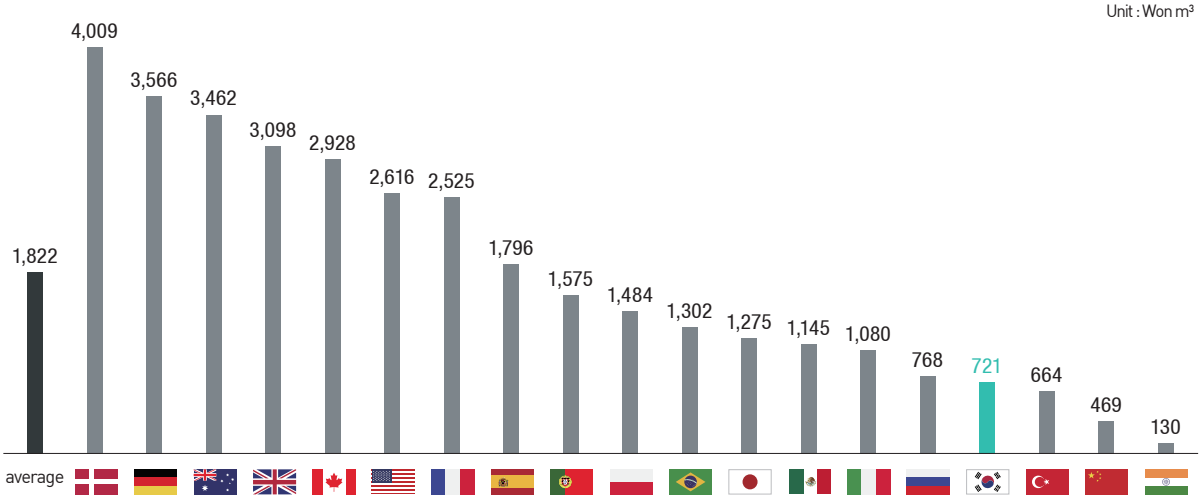
6 Filtration Plants (Operated Arisu Filtration Center)





Status of Water Rate in Major Foreign Countries (as of GWI Statistics 2022)

Unit : Won m³



04 Sewage Treatment Centers Recycling Contaminated Water into Clean Water

In order to purify polluted water into clean water, four water recycle centers are run. Also, Seoul Water Recycling Center is equipped with residents-friendly facilities which introduced complex cultural space such as parks and sports facilities, and multiple eco-friendly methods.

4 Water Recycling Centers

Sewage treatment capacity Total 4.98 million m^3/day

Jungnang

- Period of construction: '70-'07
- Treatment area: 10 districts, 1 adjoining local government Dongdaemun, Jungnang, Seongbuk, Nowon, Gangbuk, Dobong, Gwangjin Part of Jongno, Junggu, Seongdonggu, Euijeongbu-si
- Facility capacity : 159(10,000m^3/day)

Nanji

- Period of construction: '84-'97
- Treatment area: 7 districts, 1 adjoining local government Mapo, Yongsan, Eunpyeong, Seodaemun Part of Jongno, Junggu, Seongdong, Goyang-si
- Facility capacity : 86(10,000m^3/day)

Tancheon(Private consignment)

- Period of construction: '83-'98
- Treatment area: 4 districts, 2 adjoining local government Gangdong, Songpa Part of Gangnam, Seocho, Hanamsi, Gwacheon-si
- Treatment capacity : 90(10,000m^3/day)

Seonam(Private consignment)

- Period of construction: '84-'99
- Treatment area: 9 districts, 1 adjoining local government Yeongdeungpo, Gwangak, Dongjak, Guro, Yangcheon, Geumcheon, Gangseo Part of Gangnam, Seocho, Gwangmyeong-si
- Treatment capacity : 163(10,000m^3/day)

05 Sewage, Valuable Energy Source

In 2022, water recycling centers play their role as energy production infrastructure by producing renewable energy with the use of resources generated in the course of sewerage treatment.

Energy production

78,862 TOE

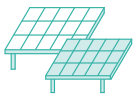
total energy use

178,277 TOE

TOE(Ton of Oil Equivalent) : Energy source standardization based on caloric value of 1 ton of crude oil (10,000,000 kcal) (1 TOE = Coal 1.55 t, natural gas 1,150 m^3)

Methods for Enhancing the Self-Support Ratio of Energy in Water Recycle Center

Saving the Consumption of Various Fuels by Producing, Using, and Expanding Digestion Gas



Promoting the Renewable Energy Project, such as Solar Panel Power Plant Facilities

Replacing Obsolete Electrical Facilities with High Efficiency Facilities to Save Amounts of Electricity Used

Safety, Health, and Administrative Services of Seoul

Seoul is a city safe from crime and disasters and provides public health for the underserved populations. It is a city that realizes efficient administration with citizen participation.
Seoul enhances its competitiveness through citizens' safety and smart administrative services.

(Administration) Information Disclosure Rate

95.7%

01

Urban Safety Polices

〈Source: Establishing a Safety City, Seoul White Paper 2021〉

There have recently been complex disaster caused by unusual weather and urbanization, including a gradually growing scale of disaster, that is to say the increase in secondary damage. In response to this, Seoul is going to realize a safe city through customized perfect and smart prevention, restoration, and management of disaster with applications of 4th industrial revolutionary technology. The supply-centered disaster information that requires citizens to seek disaster-related information is replaced by positioning-based customized disaster information.

A constant evaluation is made about the performance of facilities, with the use of the 3D Information Modeling BIM, drones, robots, IoT (Internet Of Things), and others. Besides, it is planned to minimize blind spots from disasters through augmented reality-based emergency drills. In summary, Seoul pursues perfect methods and preparedness for preventing, managing, and recovering from disasters by involving the convergence of stepwise state-of-art technologies of disaster management.

01 Prevention of Crime, through Urban Design

In the case of Yeomri-dong, Mapo-gu, Seoul, Republic of Korea: Old and Steep Urban Area and Narrow Alleyway Considered the Hot Spot of Crime, Targeting Citizens → 'Sogeumgil' was built, as the content of a community of health and culture, starting from the Citizen Community Space 'Sogeum narou.' Community art was created by displaying 'Jikimijib [Protection House] and number, painting walls, and emergency bells.

A level of citizen satisfaction of Sogeumgil and a sense of affection for the local community after the application of design have increased to 8.3% and 13.8%, respectively, while fear about the occurrence of crime fell to 9.1%.

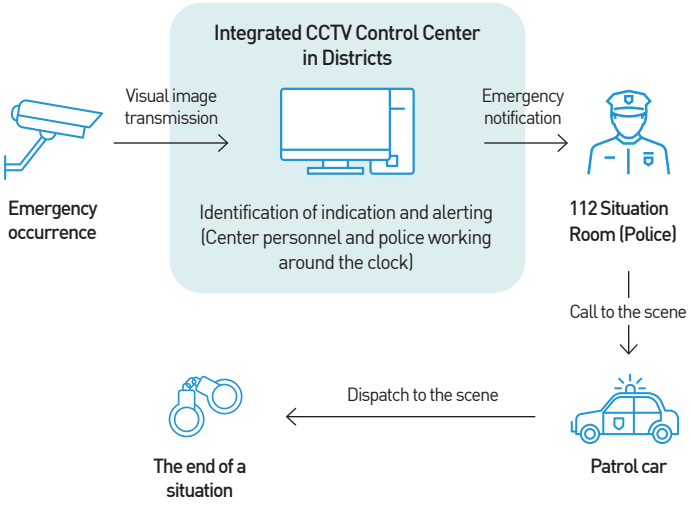
The National Police Agency conducted a comparative analysis of the rate of crime over a 2-year period (2012-2013). The results revealed that the rates of five major crimes (murder/robbery/rape/theft/violence) fell, after the establishment of 'Sogeumgil,' and especially the rate of theft occurring around Sogeumgil' came down to 12%.

〈Source: Design Policy Division, the Seoul Metropolitan Government〉

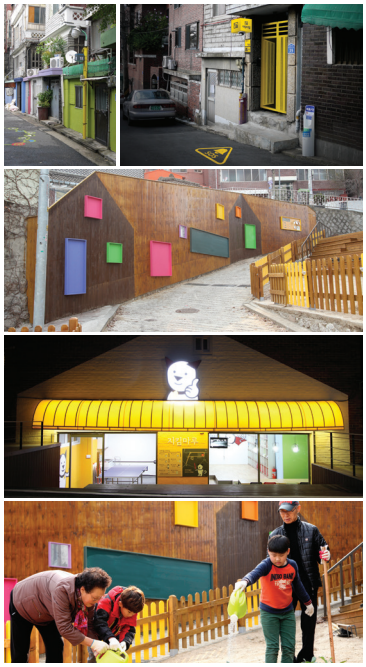
02 Integrated CCTV Control Center

Seoul has installed 37,883 CCTV cameras. Each of its 25 districts runs its own integrated CCTV control center which monitors all the CCTV cameras in its district around the clock and dispatches emergency responders to sites immediately in cooperation with fire departments and police stations.

〈Source: Information Communication & Security Division, the Seoul Metropolitan Government〉



The example of Yeomri-dong, Mapo-gu



- Installation of exercise facilities, LED security lighting, CCTV and reflectors; painting with bright colors; and formation of local residents network
- Following the design application, a significant reduction in the number of crimes and increase in residents' satisfaction (83.3%) and awareness of the effects of crime prevention efforts (78.6%)
- Community visited by more than 5,720 people from 260 institutions for benchmarking, introduced to the UK Design Against Crime (DAC), and became the subject of a documentary film

03 Seoul Emergency Operations Center

The capital of the Republic of Korea, Seoul is a dynamic city with 10 million residents. In its continuous growth, Seoul has been exposed to increasingly complex large-scale accidents and disasters. In 2002, Seoul launched the Seoul Emergency Operations Center equipped with comprehensive disaster prevention systems that collect all the reports related to accidents and disasters and take all the necessary actions including sending dispatch units, taking emergency relief and restoration measures, and remotely overseeing on-site activities. The Seoul Emergency Operations Center is armed with an advanced disaster response system based on cutting-edge ICT facilities to safeguard citizen health and safety anytime and anywhere through the fastest response possible.

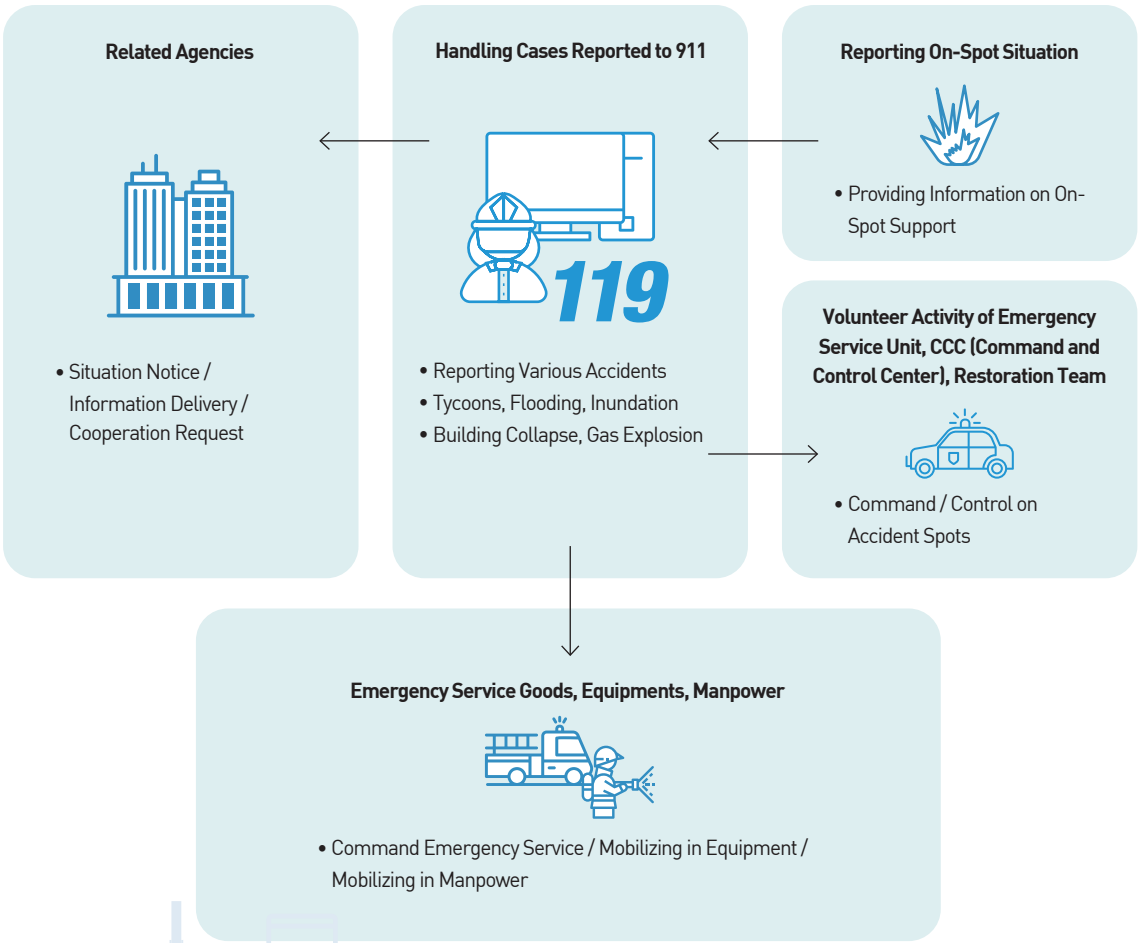
Introduction of the Golden Time Target System

Seoul has introduced the Golden Time Target System to rescue citizens in danger as early as possible and prevent disasters from being aggravated. It has identified a golden time for each type of disaster and improved the systems of emergency rescue agencies and responsible authorities. It strives to achieve rescue teams' on site arrival time of within 7 minutes.

24-hour monitoring system

Seoul Metropolitan Fire & Disaster Headquarters and the National Police Agency monitor the information collected by 65,624 CCTV cameras in real time. Based on the information, Seoul supports appropriate disaster response activities such as surveillance of rivers and vulnerable areas, following up on changing on-site situations, and ensuring evacuations within the golden time.

Flow Chart


Related Agencies
• Situation Notice / Information Delivery / Cooperation Request
Handling Cases Reported to 911
119
• Reporting Various Accidents
• Tycoons, Flooding, Inundation
• Building Collapse, Gas Explosion
Reporting On-Spot Situation
• Providing Information on On-Spot Support
Volunteer Activity of Emergency Service Unit, CCC (Command and Control Center), Restoration Team
• Command / Control on Accident Spots
Emergency Service Goods, Equipments, Manpower
• Command Emergency Service / Mobilizing in Equipment / Mobilizing in Manpower

Development of Safety Design to Prevent Industrial Disasters, according to the Serious Disaster Punishment Act

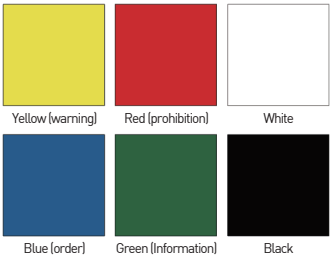
"Seoul standard type-safety design to prevent industrial disasters" has been developed, and this is a standardized guideline that helps all workers in industry recognize various information directly associated with safety by intuition. "Stable colors" were selected that even people with color disorders (color blind and color weak) are able to distinguish so that all field workers can accurately recognize safety information.

Safety designs such as safety pictograms and safety sign in application of "Safe colors" were developed in order to clearly deliver information about risk factors that are exposed in industrial situations. In addition, the design guidelines necessary in real locations were also provided. This design was awarded by the Korea

Color Universal Design Association in 2022.

Selecting 'Stable Colors' that People with Color Disorders (color blind and color weak) can Distinguish

• Safe colors that can clearly deliver information about factors that are exposed to risks



Safe Colors

Red (prohibition) and green color (information) among "safe colors" stipulated in the current Industrial Safety and Health Act that the color weak have difficulty with can bring disturbances in information delivery.

* Color Disorders are defined as the symptoms unable to normally distinguish colors caused by issues with eyesight. About 5.9% of men and 0.4% of women in the country have symptoms of color disorders (color blind, color weak).

"Safety Pictogram" and "Safety Signal" help all workers in the industrial sector recognize various information directly associated with safety by intuition

• Developing new necessary safety pictograms inside worksites and improving design that are difficult to understand

• Guidelines of Standardized Safety Signal Application in Consideration of Multiple Applicable Environments

Guidelines of Safety Signal Application

Safety Pictogram (pictograph)

Example Application of Standard-Type Safety Design in order to Prevent Industrial Disasters

• Target : 1st Stage of Construction Site of Underground Road of Gukhoedaero

• Applied Zones : Approximately 450m (1 story, 1 and 2 basement floors)

• Applied Descriptions : Safe Colors, Safety Pictogram, Safety Signal, Emergency Coping Methods

Emergency Evacuation Facilities Info

Fire Extinguisher Info

Safety Helmet Storage Box

Hazard Depository

02 Health of Seoul Citizens

01 Public Health Expansion

What is Public Health Expansion?

The plan of Public Health Expansion is Seoul policy to protect the undeserved population such as the elderly, homeless, disabled and others who cannot but mainly use public hospitals, and to ensure their right to health.

The policy is going to be promoted according to three agendas, expanding the infrastructures of public health, strengthening and specializing the function of private hospitals and health services, and establishing the great private-public c ooperation system. Seoul aims to create an environment where the underserved population can receive quality medical services and ensure citizens' right to health by expanding public hospitals.

Direction of Promotion

Respiratory & Infectious Disease Center of Boramae Medical Center

Blueprint of Dental Clinic for the Disabled

Raising Medical Accessibility by Expanding Private Hospital Facilities

1. Establishment of Public Rehabilitation Hospitals

- **Purpose :** Solving the Problem with Rehabilitation Medical Treatment Caused by the High Cost for Rehabilitation Treatment and a Lack of Special Treatment Institutions
- **Location :** Within Redevelopment Renewal Areas in Jingwandong, Eunpyeong-gu, Seoul, Republic of Korea
- **Scale :** 200 Hospital Beds or less, Total Area: more than 16,000m²

2. Establishment of Seoul Public Hospitals

- **Purpose :** Solving the Problem with Insufficient Medical Services of the Underserved Population in Southeast Regions that Suffer a Lack of Public Medical Infrastructures
- **Location :** The Area around 76, Wonji-dong, Seocho-gu, Seoul, Republic of Korea Lot Ara : 67,126m²
- **Scale :** Hospitals of 600 Beds and More than 20 Medical Offices, Medical Center for Infectious Diseases

3. Establishment of Respiratory & Infectious Disease Center of Boramae Medical Center

- **Purpose :** Providing Medical Treatment for Patients with Infectious Diseases and Respiratory Diseases
- **Location :** Boramae Medical Clinic Blg, Boramae-ro 5-gil 28. Dongjak-gu, Seoul, Republic of Korea
- **Scale :** Scale of 3F / B 3F Emergency Medical Center, Negative Pressure Ward (general and serious patient wards)

02 Establishment of Seoul Public Hospitals

The establishment of Seoul public hospitals aims to provide quality medical services in the southeast regions that suffer from a lack of public medical infrastructures and establish the crisis-coping medical system swiftly in case of emergency. The establishment of public rehabilitation hospitals aims to provide quality professional rehabilitation services for the rehabilitation of patients in poor conditions caused by the high cost of rehabilitation treatment and a lack of treatment institutions.

1. Business Overview

- **Cause for Business Promotion :**
  - Act on the Establishment and Operation of Local Medical Centers
  - Public Health Care Act
  - Expansion of Public Medical Infrastructures in order to Protect the Undeserved Population and Cope with Disasters (May. 2022)
- **Business Period :** '22. 1. ~ '29. 12.
- **Business Budget :** 110 million

2. Details of Business

Establishment of Seoul Public Hospitals

- **Site :** The Area around 76, Wonji-dong, Seocho-gu, Seoul, Republic of Korea Lot Ara : 67,126m²
- **Scale of Support :** Hospitals of 600 beds (Creating Additional Medical Center for Infectious Diseases)
- **Details of Support :** Functioning as hospitals in charge of coping with emergency crises to solve problems with medical service for the underserved populations in the southeast regions

Establishment of Public Rehabilitation Hospitals

- **Site :** Redevelopment Renewal Areas in Jingwandong, Eunpyeong-gu, Seoul, Republic of Korea, Lot Area: 6,964m²
- **Scale of Support :** Hospitals of 200 Beds or less, Total Area: more than 16,000m²
- **Details of Support :** Functioning as hospitals by installing and managing Department of rebhabilitition medical treatment, Department of internal medicine, Department of pediatrics and adolescents

4. Establishment of 2nd Dental Clinic for the Disabled

- **Purpose :** Enhancing the Accessibility to the Dental Medical Treatment for the Disabled who without the Opportunity to Receive the Oral Treatment and Suffer from the Restriction in the Use of Medical Services Caused by Economic Burden
- **Location :** Eowullim Plaza Blg, 489, Airport-daero, Gangseo-gu, Seoul, Republic of Korea
- **Scale :** 12 Chairs for Dental Clinic Chairs, General Anesthesia Room, Recovery Room, etc.

5. Strengthening the Function of Seonam Hospital

- **Purpose :** Securing Hospital Beds and Improving the System for the Medical Underserved Population in Seonman Area
- **Location :** Sinjeong ipen 1-ro 20, Yangcheon-gu, Seoul, Republic of Korea
- **Scale :** Reinforcing Essential Medical Services such as Childbirth, Rehabilitation, etc. Expanding and Opening Central Medical Treatment Part, Operating Room, Cardiovascular Center, Neurosurgery etc.

Providing Appropriate Medical Services by Reinforcing and Specializing Public Hospitals

Modernizing Enpyeong Hospital

- **Purpose :** Reinforcing Citizens' Mental Health Services by Carrying out the Function as the Optimal Outpatient-Centered Hospital for People with Mental Illness
- **Location :** Baekreonsan-ro 90 Empyeong-gu, Seoul, Republic of Korea
- **Scale :** B2F/6F, Remodeling 8,974m² of 18,406m² of the Total Area

Specializing the Function of Private Hospitals (Seobuk, Bukbu, Dongbu Hospitals)

- **Seobuk Hospital :** Reinforcing as the Function as the Specialized Hospital for the Elderly with a Dementia, by Designating 'Safe Dementia Hospital'
- **Bukbu Hospital :** Reinforcing the Function as Hospice, Care, Nursing Integration Services, Providing Special Geriatric Treatment and Rehabilitation
- **Dongbu Hospital :** Reinforcing the Business Targeting for the Homeless, Establishing the Cooperation System with the Related Institutions for Patients with Hemodialysis

03 Seoul Smart City Service

Seoul promotes 'future smart city innovation infrastructures', 'human-centered smart city,' and 'citizen-feeling urban services,' aiming to accomplish 'Seoul, the standardized future smart city to lead digital transformation.'

Vision

Seoul, the Standardized Future Smart City to Lead Digital Transformation

Core Values

Innovation -Friendly | Substantiality | Human-Centered | Non Face-to Face Change | Citizen- Feeling | Security, Safety

Promotion Strategies	Creating the Future Smart City Innovation Infrastructures	Realizing Human–Centered Smart City	Providing Citizen–Feeling Urban Service
	Accelerating Digital Transformation	Sharing Society	Safe and Comfortable Life
Nine Major Strategic Tasks	Expanding the Best Smart City Infrastructures in the World Accelerating Digital-Based Administration Innovation Creating an Open Big Data City	Expanding Non-Face to Face Services Realizing a Smart Inclusion City Realizing a Cyber Safety City	Establishing Smart Mobility Infrastructures Providing Safe and Secure Urban Services Supporting Digital Economy Vitalization

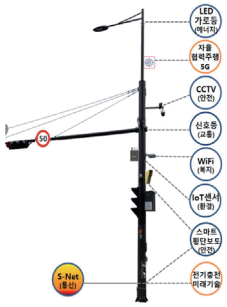
Helped by these efforts, Seoul was awarded for the best city, in SCEWC, Smart City Expo World Congress 2022 of Barcelona. Metaverse Seoul, the first public Metaverse platform in the world cities, was selected as 'The Best Invention 200 of the Times 2022,' and recognized as a smart city that would lead digital transformation in the world.

01 Creating the Future Smart City Innovation Infrastructures

A. Expanding the Best Smart City Infrastructures in the World

Seoul City strengthens citizen safety by creating communications infrastructures such as public Wifi and Smart Pool, installing, connecting, and expanding CCTVs all across the corners of Seoul .

Public Wifi



Smart Pool

B. Accelerating Digital-Based Administration Innovation

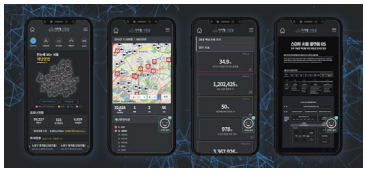
Seoul promotes the innovation and efficiency of administrative affairs, with the use of state-of-art technologies, by establishing digital twin-based virtual Seoul (S-Map), and offering urban life information services, AI Chatbot SeoulTalk, and VDI (Virtual Desk Infrastructures).

SMAP(smap.seoul.go.kr)

Chatbot SeoulTalk

C. Creating an Open Big Data City

Seoul promotes the data innovation eco-system by establishing digital distribution and sharing environments, for example, an open AI big data service platform, traffic big data, integrated management system, Seoul Smart City Platform, developing private-public fusion data such as citizen life and real-time city data, and opening it to citizens and enterprises that need data.



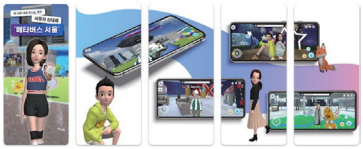
Seoul Smart City Platform (scpm.seoul.go.kr)

Traffic Big Data (t-data.seoul.go.kr)

02 Realizing a Human-Centered Smart City

A. Expanding Non-Face to Face Services

Seoul discovers and develops multiple non-face-to-face administrative services such as the public Metaverse platform 'Metaverse Seoul,' and block chain-based customized 'Seoul Wallet,' and others, in response to the rapidly changing social environments caused by COVID-19.



Metaverse Seoul
(metaverseseoul.kr)

B. Realizing a Smart Inclusion City

In order to increase access to information for digial minority groups Seoul contributes to creating digital inclusion environments of digital learning field, 'digital guide visit group,' 'support tour group' that provide education at the level of digital users, and the standardized guidebook about digital accessibility for the elderly.

Digital Learning Field

C. Realizing Cyber Safety City

In order to take preemptive measures against Cyber attacks, Seoul tries to prevent the disclosure of citizens' personal information by building AI-based security control platforms, providing procedures and standards of pseudonymization procedures, and ordinances and guidelines of privacy policy.

Digital Guide Visit Group

03 Offering Citizen-Feeling Urban Services

A. Establishing Smart Mobility Infrastructures

Seoul introduced self-driving buses in Sangam, Cheonggyecheon Stream, the Blue House, etc., and robotaxis in Gangnam to promote the transport city which involves the convergence of self-driving.

Especially, self-driving cars and buses in Sangam were selected 1st in the evaluation on districts under a trial run of self-driving cars supervised by Ministry of Land, Infrastructure and Transport in December2022.

Support Tour Group

Cyber Safety Center

B. Providing Safe and Secure Urban Services

Seoul installs the smart security system in alleyways and connects Ansimi [Safety] App to create a safe environment to return home. In order to prevent various safety accidents that can occur during urban life, Seoul promotes the establishment of an ICT-based National Disaster Integrated Management System, Fire Complex, 119 Control Center, and Integrated Underground Safety System.

C. Supporting Digital Economy Vitalization

Seoul creates the funds of the smart city and the great digital transformation to make the investments in supporting small and mid-sized enterprises and nurturing manpower. In addition, the city makes a contribution to the enhancement of the digital economy by nourishing, facilitating, and managing the innovation industry clusters, such as Yangjae Al innovation district, G-Valley, Hongreung, Chandong, Sanggye BT Cluster, a new complex cultural interchange space Y-Valley, and PIN-Tech industry cluster.

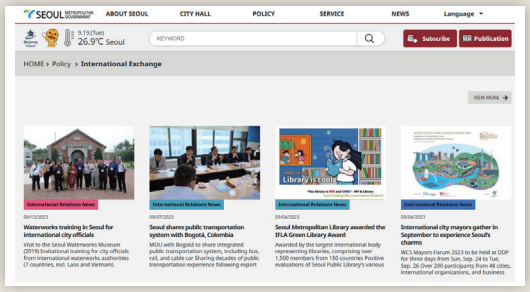
Seoul International Development Cooperation

Rapid urbanization is being developed in the whole world. The rate of urban population of the world populations has currently increased to 54% from 30% in 1950. It is anticipated that the population rate would account for 65% in 2050 (UN, 2022). The sudden concentration of urban population results in many problems caused by insufficient social infrastructures. This leads to a shortage of housing and water, and an increase in traffic congestion and crime rate and low-income poverty in many cities which creates hardship for local residents. Seoul grew to a world-class level by overcoming urban problems in the short term. In response to this, the Seoul Metropolitan Government has recognized the necessity of international development cooperation to address global urban issues in collaboration with partner cities and has established the Seoul ODA master plan in 2023. Building upon Seoul's accumulated experiences in various fields such as youth, education and care, transportation and environment, safety, and smart cities, the city is now implementing tailor-made ODA projects, taking into account the income and infrastructure situation of partner cities. Seoul City aims to become a model that not only enhances the city's stature but also leads continuous innovation and development in urban development and problem-solving as a vital partner for sustainable development in the international community.

〈Source : Seoul International Development Cooperation Division〉


Seoul International Development Cooperation Division
– Seoul ODA Master Plan
– Fund Management, G2G Cooperation, Role Coordination
– Project Monitoring and Support, Performance Management
Seoul Urban Solutions Agency
– Urban Strategic Plan and Implementation
– Development of Project Pipeline, G2B Cooperation
– Private sector overseas export support
– Urban Strategic Plan and Implementation, Consultation Panel Operation
City department, Affiliated Institute
– Policy content development
– Policy sharing, Consultation
– Private association network sharing
Univ. of Seoul, Seoul HRD Center
– Invitational and On-site training support
– Policy sharing platform managing and operation
– Masters course, higher education support
Seoul Institute
– Modularization of policy initiative project
– Demand, feasibility analysis research
– Monitor and Evaluation support
Partner Cities
– Policy Demand
– Interurban Cooperationsharing
Relevant Organization
– Development of Initiative, Joint Project
– Funding Coordination(Government, IO, etc)
Private Sectors, Foundation, CSO
– Appropriate technology development, Project Implementation
– Citizen-engaged innovative project
Invited training of overseas official and site visits in Korea
Online and offline knowledge sharing projects
Public-private partnership projects
Policy consulting
Expert dispatch

Seoul International Development Cooperation Division

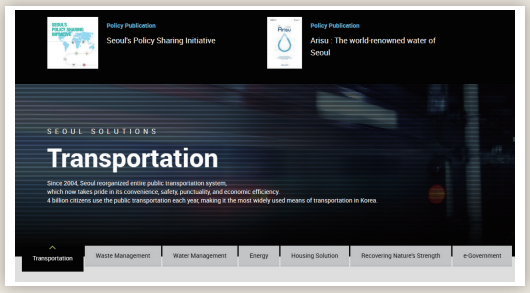


Seoul is overseeing and supporting international development cooperation projects, which include sharing its accumulated experience in solving urban issues, establishing a Seoul ODA master plan to enhance inter-city cooperation, managing funds, coordinating roles among governmental organizations, and networking.

As of 2022, Seoul has shared its solutions with 69 overseas cities in 41 countries, totaling 100 projects with a budget of 815.5 billion Korean won. These solutions are based on example policies in transportation, urban railways, smart cities, and etc.

https://www.seoul.go.kr

Seoul Urban Solutions Agency(SUSA)



SUSA is the dedicated organization through which the city of Seoul carries out projects to support international urban development and sustainable growth on a global scale.

SUSA collaborates closely with relevant domestic and international development cooperation agencies, offering integrated urban development solutions that encompass project identification, planning, technical advice, project implementation, and evaluation.

http://www.susa.or.kr

※ The agency operates a consultation panel, composed of experts with knowledge and expertise in urban policies and technology, including researchers and professors. When overseas cities request policy sharing, the agency promptly dispatches relevant experts in the field to conduct on-site research, provide policy consulting, and offer advisory services.

Seoul International Cooperation Advisory Group

15 experts in 3 areas

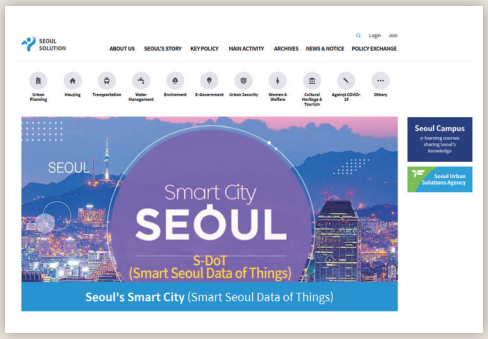
Consulting /Business Planning / Business Implementation
(Detail : Traffic /Smart City / Urban Planning/ Housing, etc)

An expert pool of 83 people

Seoul Solution Online Platform

Established by the SMG in 2014 and operated by the Seoul Institute, the Seoul Solution shares outstanding policies database, online learning programs, research reports, and publications. It also serves as a communication channel by accepting collaborative project proposals from domestic and international stakeholders, providing guidance on invitation programs, and addressing policy inquiries from overseas entities, including cities, international organizations, and private companies. The Seoul Solution systematically collects, researches, and stores policies that have had a significant impact on Seoul's development. Its primary purpose is to allow international organizations, businesses, and the general public to comprehensively search for and utilize these policies.

https://www.seoulsolution.kr/en



Seoul Policy Sharing Program for Overseas Cities

SMG supports various policy training programs aimed at sharing its urban development experiences and knowledge with overseas cities. These programs are designed to enhance the policy capabilities of foreign municipal officials and facilitate connections with international development cooperation projects.

1. ODA Policy Training Program (Ongoing)

- Fields: All Policies of SMG
- Key Contents: Lectures on outstanding policies in Seoul, site visits, introduction of domestic private sector technologies, consultation on ODA project implementation
- Implementing Agency: International Development Cooperation Division, SMG
- Contact : http://www.susa.or.kr

2. Short-Term Program (7-10 days)

- Fields: Transportation, Smart Cities, Climate and Environment
- Key Contents: Lectures on outstanding policies in Seoul and site visits
- Implementing Agency: Global Academy, Seoul HRD Center
- Contact : hrd.seoul.go.kr/shrdc

3. Long-Term Program (2-year duration)

- Fields: Urban Planning, Mayor's Office Internship Program
- Key Contents: Master's program in urban planning, Mayor's Office internship experience
- Implementing Agency: University of Seoul
- Contact : isus.uos.ac.kr

Partner Organizations

Seoul Metropolitan Government
www.seoul.go.kr

Ministry of Strategy and Finance
www.mosf.go.kr

Ministry of Foreign Affairs
www.mofa.go.kr

Korea Trade-Investment Promotion Agency
www.kotra.or.kr

Korea International Cooperation Agency
www.koica.go.kr

Export-Import Bank of Korea
www.koreaexim.go.kr

International Contractors Association of Korea
kor.icak.or.kr

Korea Financial Investment Association
www.kofia.or.kr

KDI (Korea Development Institute)
www.kdi.re.kr

Korea Research Institute for Human Settlements
www.krihs.re.kr

Korea Chamber of Commerce and Industry
www.korcham.net

Korea Federation of SMEs
www.kbiz.or.kr

Korea Planning Association
www.kpa1959.or.kr

The Seoul Institute
www.si.re.kr

University of Seoul
www.uos.ac.kr

World Bank
www.worldbank.org

Asian Development Bank
www.adb.org

UN-Habitat
unhabitat.org

UN Economic and Social Commission for Asia and the Pacific
www.unescap.org

Local Governments for Sustainability
www.iclei.org

CITYNET
citynet-ap.org

World Smart Sustainable Cities Organization
www.we-gov.org

World Cities Summit
www.worldcitiessummit.com.sg

Metropolis
www.metropolis.org

Megacity Think Tank Alliance
global.si.re.kr

Urban SDG Knowledge Platform
www.urbansdgplatform.org

Status of Seoul International Development Cooperation

Transportation(22)

Ghana	Uzbekistan
Greece	Ukraine
New Zealand	Egypt
Nicaragua	Indonesia
Malaysia	China
Mongolia	Kenya
Vietnam	Cote d'Ivoire
Saudi Arabia	Colombia
Sri Lanka	Tanzania
Azerbaijan	Thailand
El Salvador	Philippines

Disaster Relief (22)

Nepal	Haiti
Laos	Ecuador
Mexico	Ukraine
Mexico	Iran
Mozambique	Indonesia
United States of America	China
Myanmar	Colombia
Vietnam	Türkiye
Brazil	Pakistan
Sri Lanka	Philippines
Argentina	Hungary

Firefighting(16)

Laos	Myanmar	Sri Lanka	Cambodia
Malaysia	Bangladesh	Ukraine	Kyrgyzstan
Mongolia	Vietnam	Indonesia	Peru
Myanmar	North Korea	Cameroon	Philippines

For inquiries and collaboration related to International Development Cooperation Projects, please contact the following

Address 110, Sejong-daero, Jung-gu, Seoul, International Development Cooperation Division
E-mail overseas@i-sh.co.kr
Website http://www.susa.or.kr/en
Tel +82-2-734-3456

Urban Planning (14)

Myanmar
Vietnam
Bulgaria
Saudi Arabia
Serbia
Argentina
Ecuador
Ethiopia
Uzbekistan
Ukraine
India
Kazakhstan
Kenya
Peru

Urban Railway (13)

Malaysia
Mongolia
Myanmar
Bangladesh
Vietnam
Algeria
India
Indonesia
Costa Rica
Colombia
Panama
Philippines
Australia

Smart City (10)

Mozambique
Vietnam
Sri Lanka
Argentina
Uganda
Ukraine
India
Indonesia
Colombia
Philippines

Water Supply (6)

Vietnam
Brunei
Indonesia
Tanzania
Papua New Guinea
Peru

Education (6)

Mongolia
Ethiopia
Indonesia
Kenya
Colombia
Poland

Climate Environment (3)

Indonesia
China
Philippines

Housing (1)

Mongolia

Health (1)

Vietnam


SEOUL METROPOLITAN
GOVERNMENT
https://english.seoul.go.kr