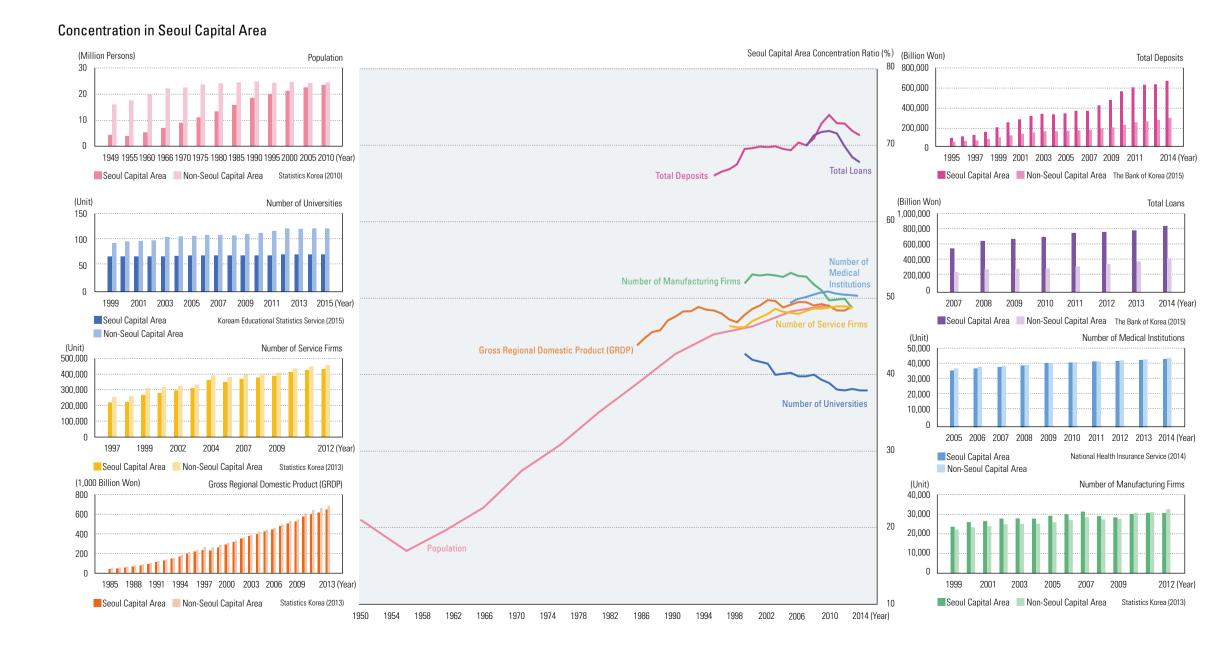
Sustainable Land Development

In 1960, the population of the Seoul Metropolitan Area was approximately 20.8% of Korea's entire population. Thirty years later in 1990, the share more than doubled to 42.8%, and by 2010, it reached 48.9%. Almost half of Korea's entire population now lives in the Seoul Metropolitan Area. In addition, most socioeconomic indicators such as gross regional domestic product (GRDP), number of businesses, and number of service firms show that the Seoul Metropolitan Area accounts for 50% of the entire country. Further-

more, the concentration of financial servicestotal deposits and total loans-far exceeds 50% and is almost 70%. Approximately 40% of higher education institutions are located in and around Seoul. Since the 1960s, the Korean Government has pursued policies to mitigate the concentration of people and capital in the Seoul Metropolitan Area, and has promoted policies reflecting more balanced development. Policies to prevent overcrowding in metropolitan areas were adopted in the 1960s, followed by policies to reduce con-

centration in the Seoul Metropolitan Area in the 1970s. Despite these efforts, people continued to move to Seoul well into the 1980s. In 1982, the "Seoul Metropolitan Area Readjustment Planning Act" was enacted, followed by the First Capital Region Readjustment Plan (1984 – 1996) in 1984—both of which provided a comprehensive development framework with legal binding force. In the 1990s, Korea's territorial plans were amended as the autonomy of the local governments was restored. In this context, the First and

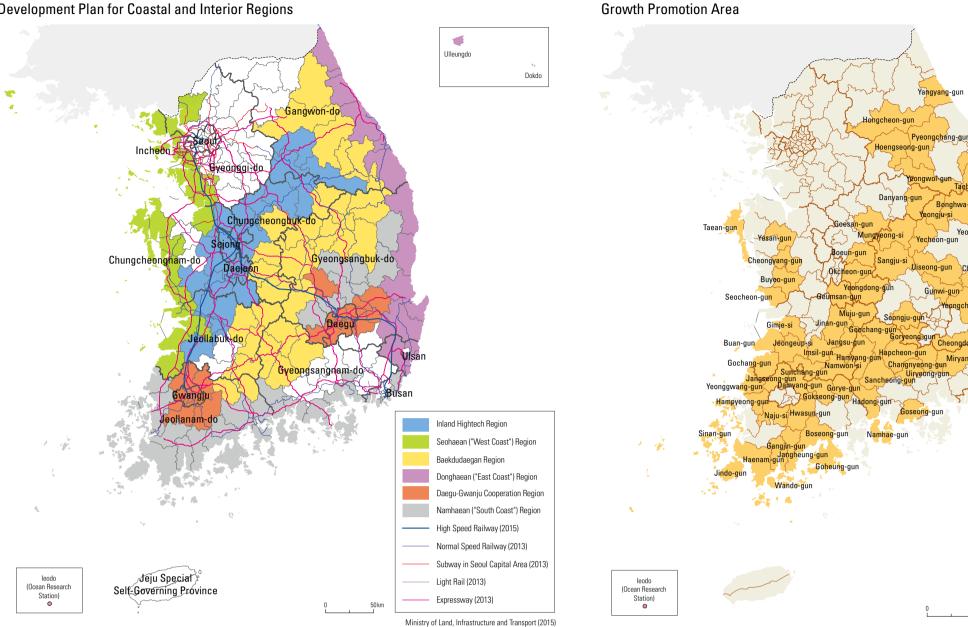
Second Capital Region Readjustment Plans were announced, in 1994 and 1997, respectively. As the Second Capital Region Readjustment Plan (1997 -2011) was approved and introduced, new ideas about planning and development were emerging, and the Third Capital Region Readjustment Plan (2006 - 2020) was prepared well before the target year 2006. This plan heeded calls for deregulation and brought about a paradigm shift in local development.



NATIONAL TERRITORY AND PLACES OF LIFE

Regional Development Policies

Development Plan for Coastal and Interior Regions



Balanced Development Policy

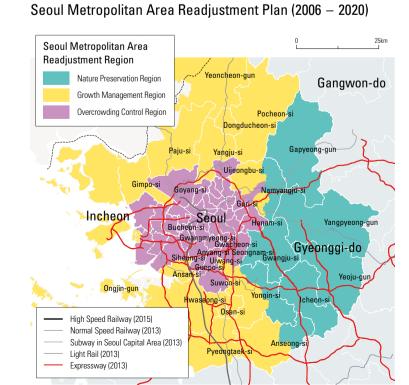
| Period | Policy |
|--------|--|
| 1970s | First Comprehensive National Territorial Plan (Ministry of Construction, 1971) |
| 1980s | Second Comprehensive National Territorial Plan (Ministry of Construction, 1981) Office of Balanced National Development Established (1989) |
| 1990s | Third Comprehensive National Territorial Plan (Ministry of Construction, 1991) Development Promotion District Adopted (1994) |
| 2000s | Fourth Comprehensive National Territorial Plan (Ministry of Construction & Transportation, 2000) Enactment of Special Act on Decentralization (2003) Enactment of Special Act on Balanced National Development (2004) First Five-Year Balanced National Development Plan (2004) Fourth Comprehensive National Territorial Revised Plan (Ministry of Construction and Transportaiton, 2005) First Regional Development Plan (2009) |
| 2010s | Second Regional Development Plan (2014) |

Growth Regulations for Seoul Metropolitan Area

| Period | Policy | |
|--------|--|-----------------------|
| 1960s | Measures to Prevent Population Concentration in Large Cities (Ministry of Construction, 1964) Measures to Readjust Population and Facilities in Large Cities (Minister without Portfolio, 1969) | Gangwon (7) |
| | Basic Guidelines for Prevention of Overcrowding in Capital Region (Ministry of Construction, 1970) | Chungcheongbuk-do (5) |
| 1970s | Policy to Disperse Population in Large Cities (Economic Planning Board, 1972) Seoul Population Dispersion Plan (Seoul Metropolitan Government, 1975) | Chungcheongnam-do (6) |
| | Master Plan for Population Redistribution in Seoul Capital Region (Minister without Portfolio, 1977) | Jeollabuk-do (10) |
| 1980s | Plan for Regulation of Public Office Buildings and Large-Scale Buildings in Capital 1980s Region (Ministry of Construction, 1982) tment of Seoul Metropolitan Area Readjustment Act (1982) First Seoul Capital Region Readjustment Plan 1984 – 1996 (1984) | |
| 1990s | Complete Revision of Seoul Metropolitan Area Readjustment Act and Enforcement Decree (1994) | Gyeongsangbuk-do (16) |
| | Second Seoul Capital Region Readjustment Plan 1997 – 2011 (1997) | Gyeongsangnam-do (10) |
| 2000s | Revision of Seoul Metropolitan Area Readjustment Act (2004) Third Seoul Capital Region Readjustment Plan 2006 – 2020 (2006) | Total |
| | Minister of Land Jafrastructure and Transport (2015) | |

Ministry of Land, Infrastructure and Transport (2015)

Growth Promotion Area



Ministry of Land, Infrastructure and Transport (200

Ministry of Land, Infrastructure and Transport (2015)

The Coastal Region refers to multiple local governments along the coasts. It was designated in the Comprehensive Plan for Developing Coastal Areas, supported by the "Special Act on Developing Coastal and Inland Regions." The plan originally only included development plans for coastal regions. However, inland regions were later added.

Seoul Metropolitan Area Readjustment Regions (Growth Control Regions) are areas designated to reduce the concentration of population and industries in the Seoul Metropolitan Area. They are based on the "Seoul Metropolitan Area Readjustment Planning Act" (Article 6) and its executive ordinance (Article 9), which divides the Seoul Metropolitan Area into three regions.

Overcrowding Restriction Region: a region with overcrowding, or expected to be overcrowded and in need of readjustment or relocation of facilities.

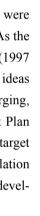
Growth Control Region: a region that accommodates relocated people or facilities from the Overcrowding Restriction Region. Locations of industries and urban development are carefully managed.

Nature Conservation Region: a region where the natural environment needs to be conserved, for example, the green space and water bodies of the Hangang River system.

70 -Si/-Gun

By Presidential Decree of the Special Act on Balanced National Development, Growth Promotion Area refers to an area requiring special support from the national and local government for the construction of infrastructure necessary to promote its economic and social growth, such as road and water supply systems, because of its poor living conditions and considerably underdeveloped local economy

A Growth Promotion Area is co-designated by the ministers of both the Ministry of the Interior and the Ministry of Land, Infrastructure and Transportation based on the area's income, population, and financial standing, among other factors. The first Growth Promotion Area was designated in June of 2009. As of September 2014, 70 -si/-gun areas had been designated as Growth Promotion Areas. Once designated, an area retains that status for five years and is also entitled to full financial support (100% government subsidies).



| Ulleung-gun | |
|-------------|-------|
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| Growth Promotion Area |
| stry of Land Infrastructure and Transport (2015) |

| Sustainable Land Development |
|------------------------------|
| Region |

| try of Land | , Infrastruct | ure and Tra | ansport (201 | 5 |
|-------------|---------------|-------------|--------------|---|
| | | | | |
| | | | | |

| Growth Promotion Area |
|--|
| Taebaek-si, Samcheok-si, Hoengseong-gun, Yeongwol-gun, Pyeongchang-gun, Yangyang-gun, Hongcheon-gun |
| Boeun-gun, Yeongdong-gun, Goesan-gun, Danyang-gun, Okcheon-gun |
| Seocheon-gun, Geumsan-gun, Buyeo-gun, Cheongyang-gun, Yesan-gun, Taean-gun |
| Namwon-si, Gimje-si, Jinan-gun, Muju-gun, Jangsu-gun, Imsil-gun, Sunchang-gun, Gochang-gun, Buan-gun, Jeongeup-si |
| Naju-si, Damyang-gun, Gokseong-gun, Gurye-gun, Goheung-gun, Boseong-gun, Hwasun-gun, Jangheung-gun, Gangjin-gun, Haenam-gun, Hampyeong-gun, Jangseong-gun, Wando-gun, Jindo-gun, Sinan-gun, Yeonggwang-gun |
| Sangju-si, Mungyeong-si, Gunwi-gun, Uiseong-gun, Cheongsong-gun, Yeongyang-gun, Yeongdeok-gun, Cheongdo-gun, Goryeong-gun, Seongju-gun, Yecheon-gun, Bonghwa-gun, Uljin-gun, Ulleung-gun, Yeongcheon-si, Yeongju-si |
| Uiryeong-gun, Changnyeong-gun, Goseong-gun, Namhae-gun, Hadong-gun, Sancheong-gun, Hamyang-gun, Geochang-gun, Hapcheon-gun, Miryang-si |

Ministry of Land, Infrastructure and Transport (2015)

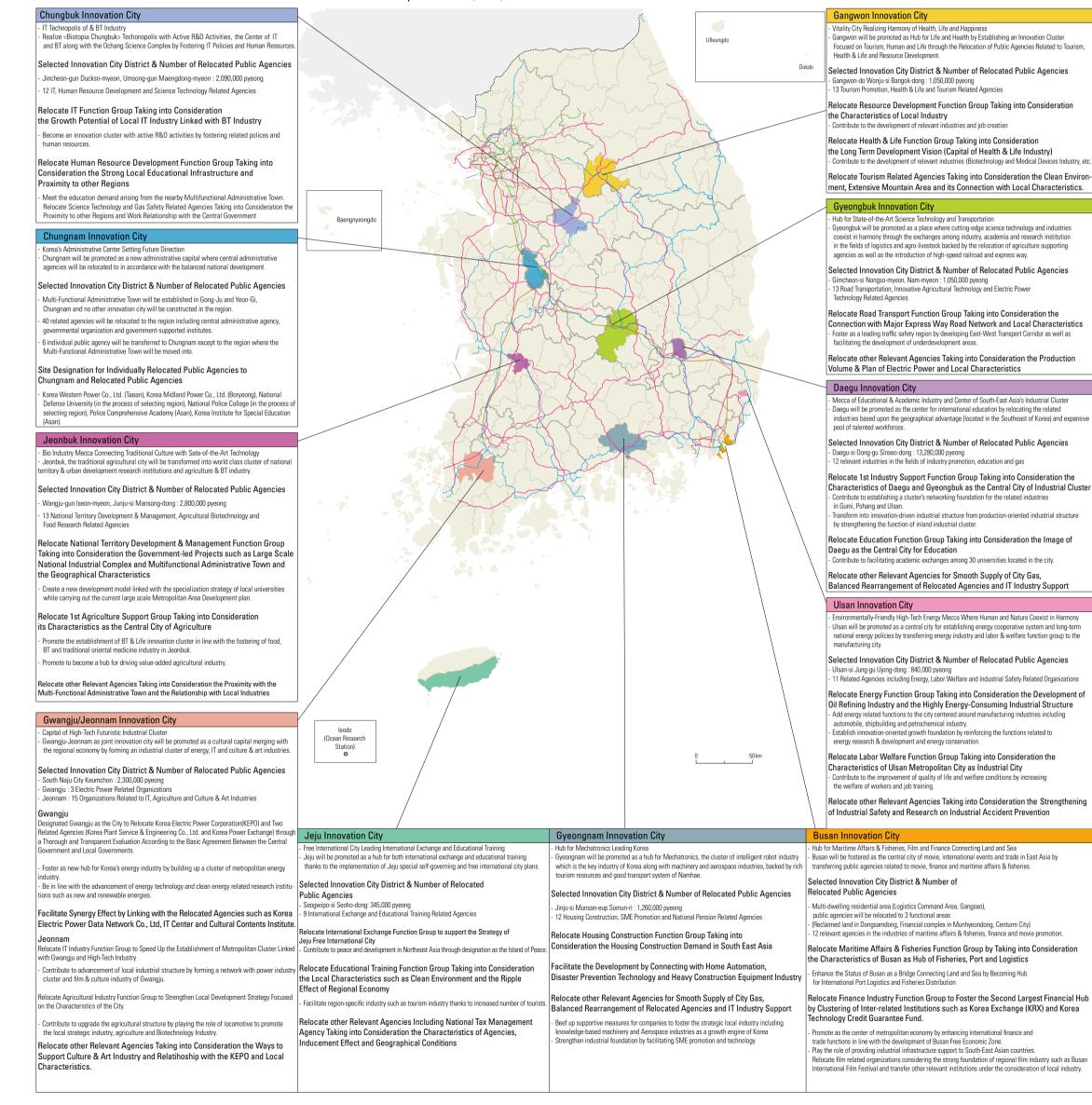
Regional Development Plans

| First Balanced National Development Plan (2004) | First Regional Development Plan (2009) | Second Regional Development Plan (2014) |
|---|---|---|
| Development by Distributing Functions - Construction of Sejong City - Construction of Innovation City, Enterprise City - 4 + 9 Promotion of Regional Strategic Industries | 5 + 2 Economic Regions Promotion of Economic Regions' Leading Industries Focus on Talent Development in Economic Regions Selection and Promotion of 30 Flagship Projects | HOPE Area - Build HOPE - Provision of Locally Customized Packaged Support - Initiative by the Local Government, Strengthening of Cooperation |
| Establish Foundation for Balanced National Development | Emphasize Need for Cooperation Between Regions to Achieve Development | Create Environment for Locally Initiated Development |

The regional development plan is a statutory plan defined in the "Special Act on Balanced National Development" (enacted in 2004). In 2009, the plan was reorganized from the Five-Year Plan for Balanced National Development to a Five-Year Regional Development Plan. The early balanced development plans focused on relocating public institutions in the Seoul Metropolitan Area to different provinces for balanced development, as well as constructing the Multifunctional Administrative City (Sejong-si) and innovation cities. These efforts aimed at creating regional innovation clusters.

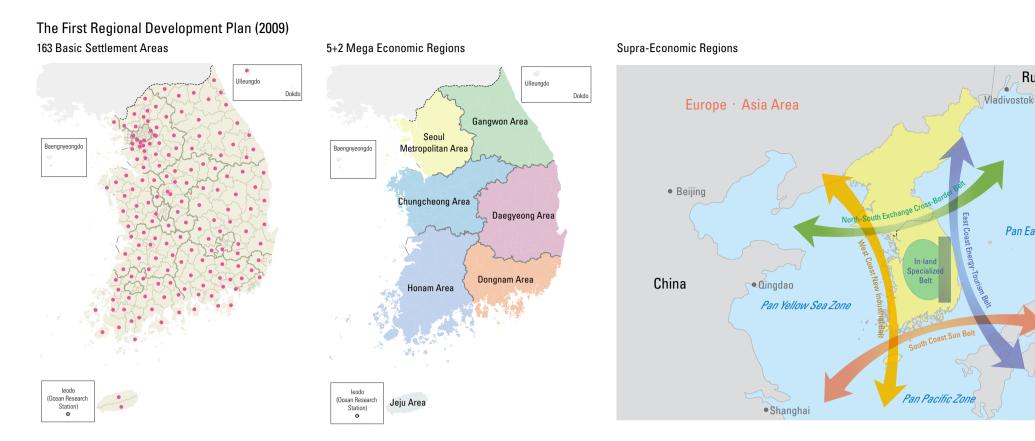
The First Regional Development Plan, prepared in 2009, presented a vision of linking "5+2" economic regions for better cooperation and growth. Specific policies to build economic growth momentum included building techno-parks, innovation clusters, and talent development centers. A flagship project appropriate for each economic region was implemented. The Second Regional Development Plan, prepared in 2014, focuses on improving the quality of life for residents in step with the HOPE (Happiness, Opportunity, Partnership, Everywhere) Project announced in 2013.

Plans for Innovation Cities within the First National Balanced Development Plan (2004)

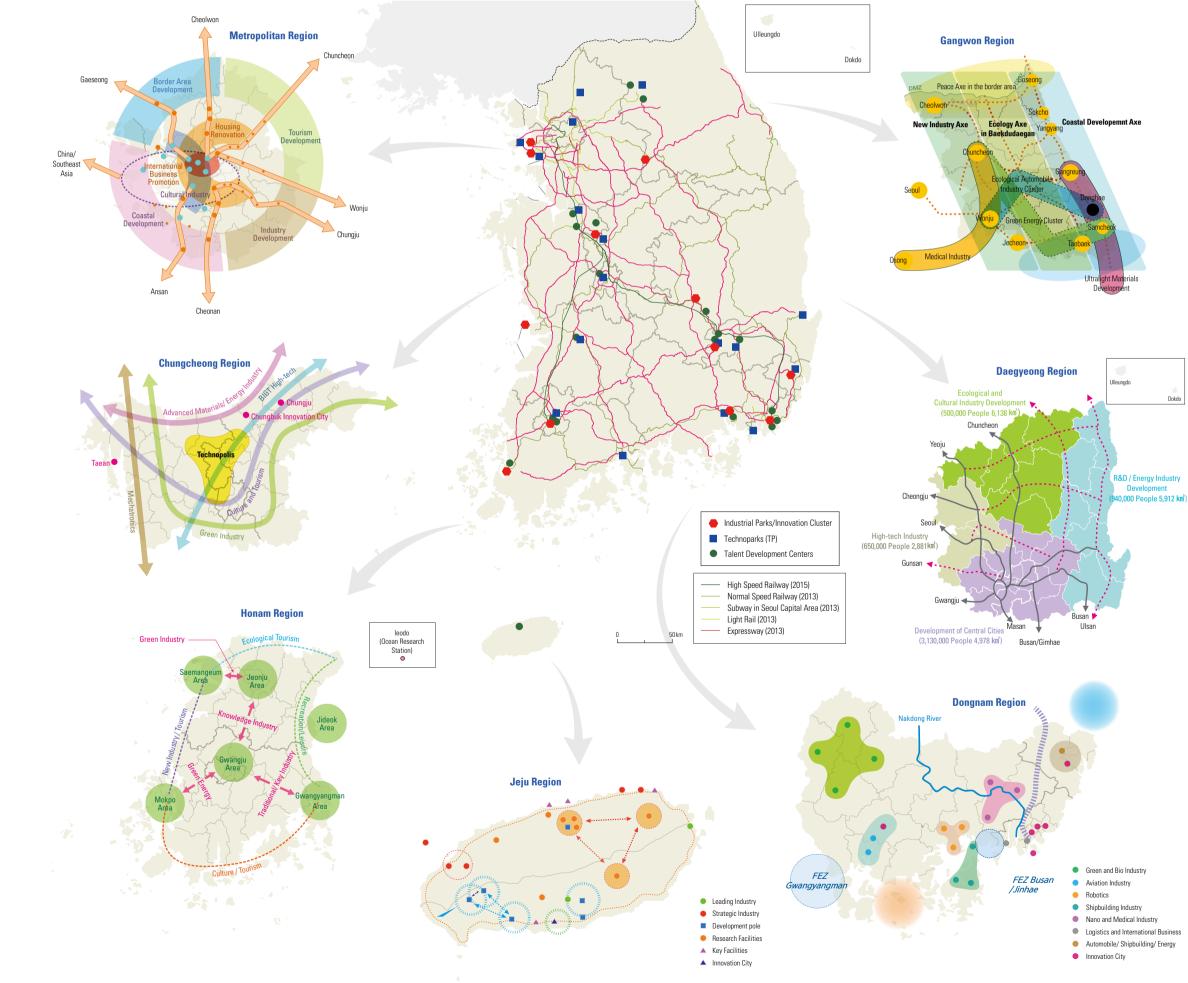


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NATIONAL TERRITORY AND PLACES OF LIFE

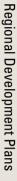


5+2 Mega Economic Region Concepts for Cities/Provinces - Talent Development Centers & Development of Industrial Hubs









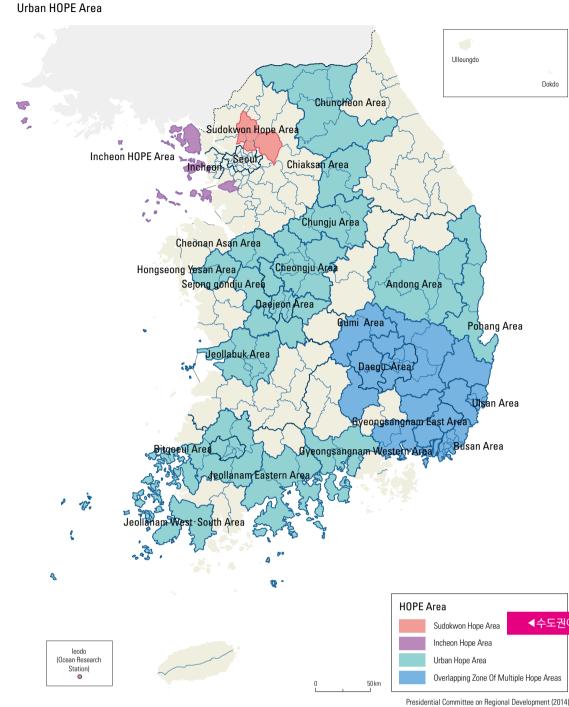
085

The Second Regional Development Plan with Specific Element Plans (2014) Cla

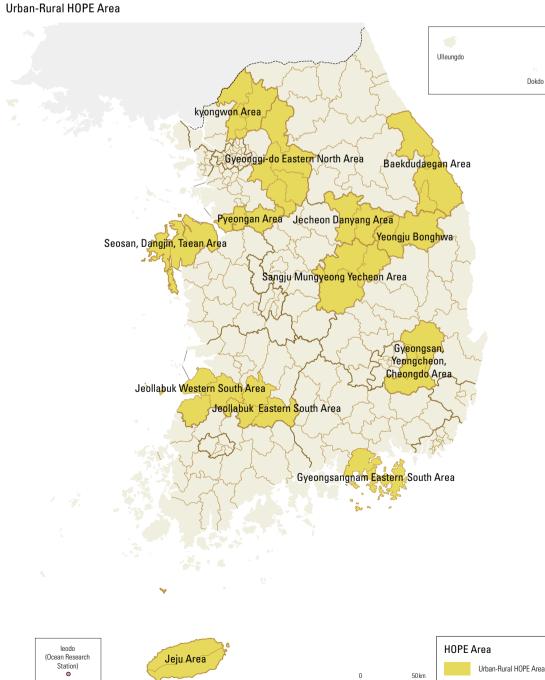
| assification | Purpose | Ministry in Charge | Affiliated Ministries | | |
|---|--|--|--|--|--|
| Vitalize HOPE Areas | Encourage Locally Iniatived Collaborative Projects | Ministry of the Interior | Ministry of Agriculture, Food and Rural Affairs, Ministry of Land, Infrastructure and Transport | | |
| | Build Infrastructure for People's Everyday Life | Minister of Lond | Ministry of the Interior, Ministry of Environment | | |
| | Revitalize Local Centers | Ministry of Land, Infrastructure and Transport | Ministry of Agriculture, Food and Rural Affairs | | |
| | Improve Local Transportation/Logistics Networks | hanopore | Ministry of Oceans and Fisheries, Ministry of the Interior | | |
| | Foster Local Leading Industries with Focus on Job Creation | | Ministry of Science, ICT and Future Planning, Ministry of Employment and Labor | | |
| | Build Platform to Accelerate Local Investment | Ministry of Trade, Industry and Energy | Small and Medium Business Administration | | |
| Energize Local | Upgrade Industrial Complexes to Achieve Creative Economy | | | | |
| Economy by Creating Jobs | Promote Research on Locally Based R&D to Expand Creative Economic Regions | Ministry of Science, ICT and Future Planning | Ministry of Land, Infrastructure and Transport | | |
| | Develop Growth Poles for Local Growth | Ministry of Land, Infrastructure and Transport | Ministry of Science, ICT and Future Planning, Ministry of Oceans and Fisheries | | |
| | Enhance Competitiveness of Agriculture and Fish Industries | Ministry of Agriculture, Food and Rural Affairs | Ministry of Oceans and Fisheries | | |
| Improve Education System and Build Creative Workforce | Improve Local Primary and Secondary Education Environment | | | | |
| | Support Local Universities to Develop Creative Workforce | Ministry of Education | | | |
| | Develop Local Workforce by Providing Opportunities to Study While Working | Ministry of Education | - | | |
| | Strengthen Local Cultural Capacity and Support Specialization | | | | |
| Promote Local | Strengthen Local Cultural Capacity and Support Specialization | | | | |
| | Narrow Cultural Gap by Providing Customized Cultural Services | Ministry of Culture, Sports and Tourism | - | | |
| Culture, Restore Ecology | Develop Local Tourism Industry | | Ministry of Oceans and Fisheries | | |
| Ecology | Conserve/Utilize Local Ecological /Natural Environment | Ministry of Environment | Ministry of Culture, Sports and Tourism, Ministry of Land, Infrastructure and Transport | | |
| Welfare/ Medical Services without Blindspots | Build Welfare Delivery System Close to Residents' Everyday Lives | | - | | |
| | Devise Customized Welfare Strategies that Reflects Beneficiaries' Characteristics | Ministry of Health and Welfare | Ministry of Gender Equality and Family | | |
| | Build Medical Services Infrastructure and Support System for Vulnerable Areas | | | | |

A HOPE area is composed of multiple local governments and supports projects initiated through collaborations between the neighboring local governments. The HOPE projects pursue eliminating inconveniences strategically and improving quality of life for residents, thereby providing a new experience through enhanced governmental cooperation. HOPE areas are further divided into "Urban

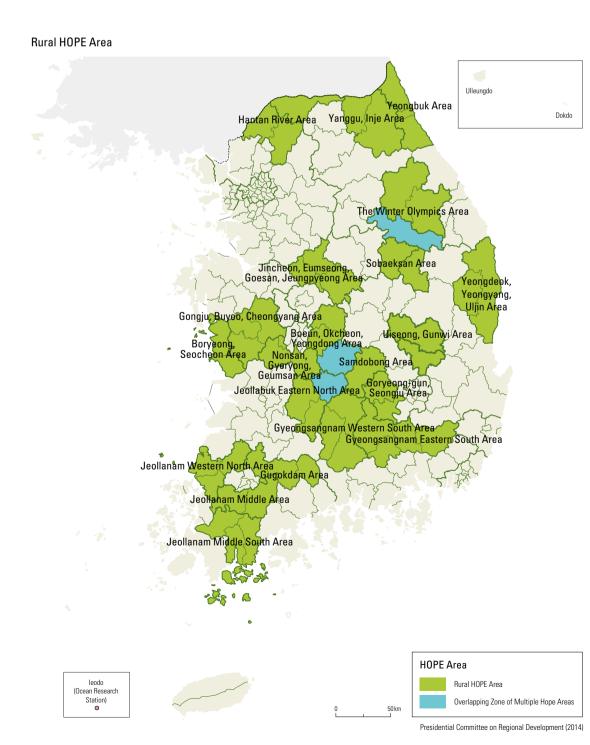
HOPE Areas" in urban settings, "Urban-Rural HOPE Areas" where urban and rural areas affect each other closely, and "Rural HOPE Areas" where agriculture or fishing remains the dominant industry. However, specific -si/-gun/-gu districts can cross boundaries and spread over many types of HOPE areas as means of transportation improve and a polycentric metropolis emerges.



HOPE Area

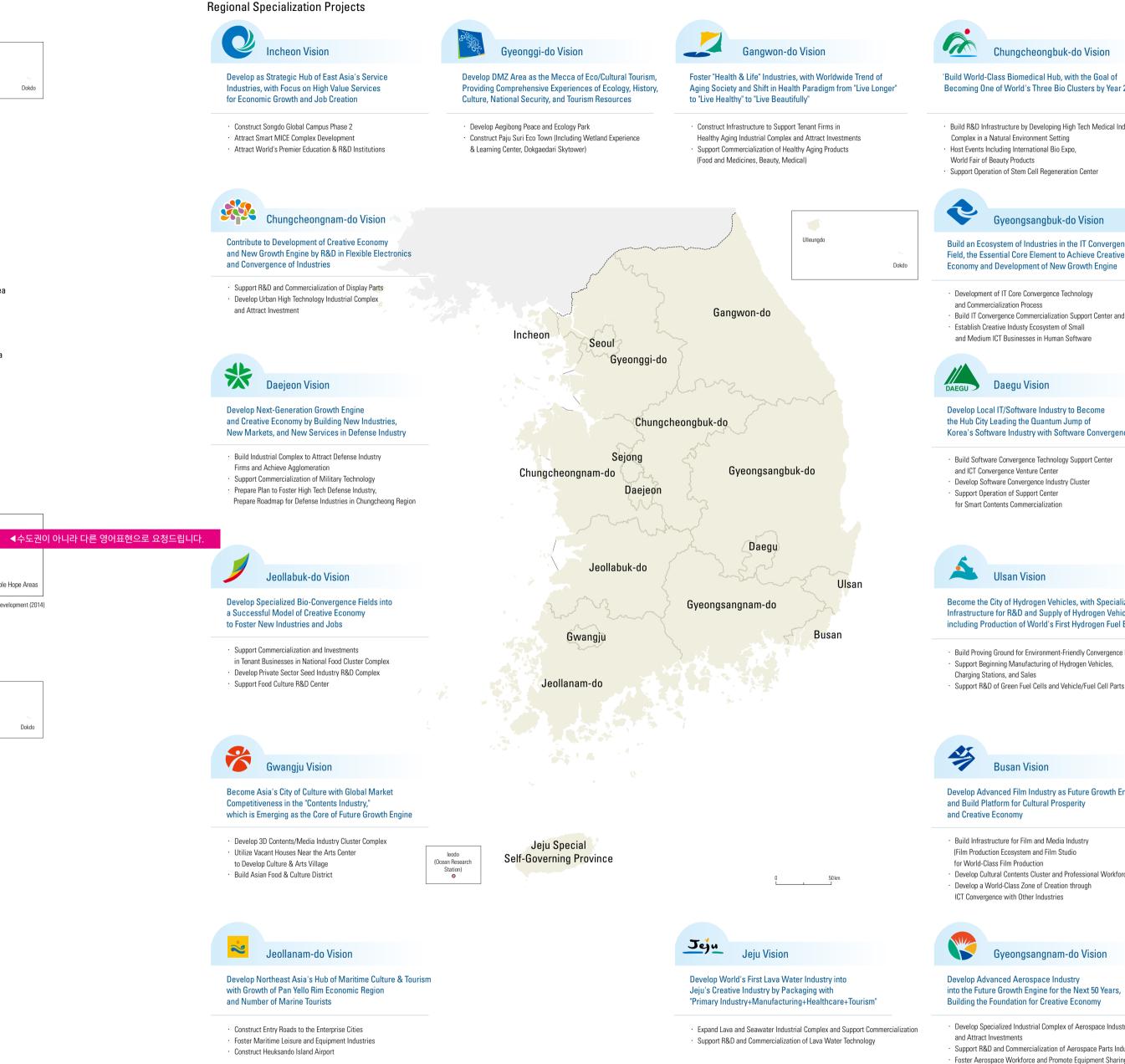


Presidential Committee on Regional Development (2014



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NATIONAL TERRITORY AND PLACES OF LIFE



Through a bottom-up process, a total of 15 projects and 80 sub-projects at the -si/-do district levels have been selected as Regional Specialization Projects. The selection process comprehensively considered local characteristics and visions, as well as the compatibility of the projects with the local development strategy and the impact on the local economy. The goal of the Regional

Specialization Projects is to integrate them with a balanced development plan and regional development plan led by the national government, to guarantee consistency of local policies and promote more efficient budget operation and project effectiveness.

Based on a local industrial base and growth potential into the future, 15 specialization projects have been selected to lead the nation. To ensure that local industrial development drives new employment opportunities and the creation of an industrial ecosystem, 16 economic cooperation regions and 63 key industry support systems have been established. The goals are to increase the number of employment opportunities and the productivity of local traditional industries, the

software industry, and local industries with connections to cities, with increasing support from locally-based institutions. To enhance local competitiveness, strategies including deregulation, policy improvement, and better incentives have been reviewed to build growth potential at the centers of local economy and industries.

Chungcheongbuk-do Vision

Becoming One of World's Three Bio Clusters by Year 2030

· Build R&D Infrastructure by Developing High Tech Medical Industry

Gyeongsangbuk-do Vision

Build an Ecosystem of Industries in the IT Convergence Field, the Essential Core Element to Achieve Creative

Build IT Convergence Commercialization Support Center and Testbed

Korea's Software Industry with Software Convergence

Become the City of Hydrogen Vehicles, with Specialized Infrastructure for R&D and Supply of Hydrogen Vehicles, including Production of World's First Hydrogen Fuel Batteries

Build Proving Ground for Environment-Friendly Convergence Fuel Cell Support Beginning Manufacturing of Hydrogen Vehicles,

Develop Advanced Film Industry as Future Growth Engine,

Develop Cultural Contents Cluster and Professional Workforce

Gyeongsangnam-do Vision

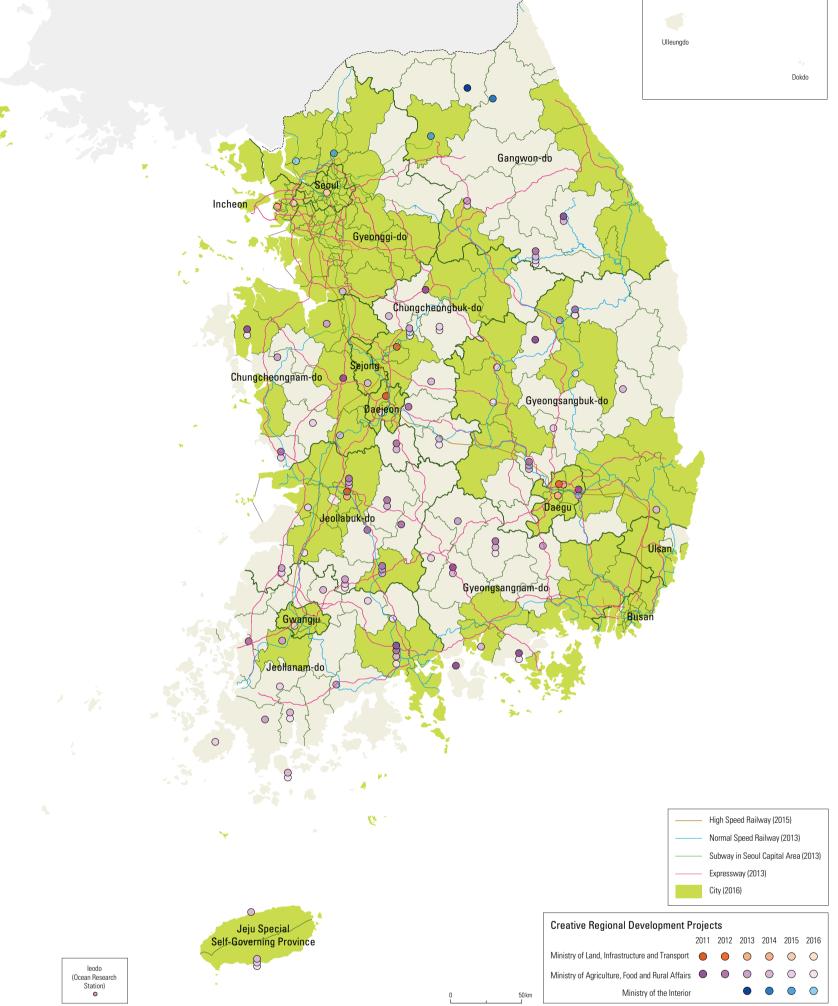
Develop Specialized Industrial Complex of Aerospace Industry

Support R&D and Commercialization of Aerospace Parts Industry Foster Aerospace Workforce and Promote Equipment Sharing Presidential Committee on Regional Development, Ministry of Trade, Industry and Energy (2014)





Creative Regional Development Projects



To overcome the limits of regional development approaches that focus on hardware, since 2011 the Presidential Committee on Regional Development (PCRD) has been supporting creative regional projects that utilize local resources. The Committee has been supporting approximately ten projects each year since 2011. The projects were autonomously prepared by different -si/gun/-gu districts, and the Committee organized an advisory council of experts and interested parties to assist and enhance the business capability of local residents. The Committee aims to utilize both tangible and intangible local assets in order to improve quality of life for local residents and strengthen the sense of community. Over the long-term, the goal is to build a foundation for sustainable regional development.

| Ministry of Land, Infrastructure and Transport | | 0 | \bigcirc | \bigcirc | \bigcirc | |
|---|--------|------------|------------|------------|------------|---|
| Ministry of Agriculture, Food and Rural Affairs | igodol | \bigcirc | \bigcirc | \bigcirc | \bigcirc | |
| Ministry of the Interior | | | ightarrow | ightarrow | ightarrow | |
| | | | | | | _ |

Presidential Committee on Regional Development (2016)

Creative Regional Development Projects (2011 – 2016)

| Description | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|------|------|------|------|------|------|
| Total | 13 | 16 | 18 | 27 | 21 | 19 |
| Seoul | | | | | 1 | |
| Daegu | | 1 | 1 | 1 | | |
| Gwangju | | | | 1 | 1 | |
| Daejeon | 1 | | | | | 1 |
| Sejong | | | | 1 | | |
| Gyeonggi-do | | | | 1 | 2 | 1 |
| Gangwon-do | 1 | 1 | 2 | 3 | 3 | 1 |
| Chungcheongbuk-do | 1 | 2 | 1 | 3 | 2 | 3 |
| Chungcheongnam-do | 2 | 2 | 2 | 2 | 2 | 1 |
| Jeollabuk-do | 1 | 5 | 5 | 3 | 3 | 2 |
| Jeollanam-do | 2 | 2 | 3 | 4 | 3 | 4 |
| Gyeongsangbuk-do | 2 | 2 | 2 | 3 | 2 | 3 |
| Gyeongsangnam-do | 3 | 1 | 2 | 3 | 1 | 2 |
| Jeju Special Self-governing Province | | | | 2 | 1 | 1 |
| Ministry of Land, Infrastructure and Transport | 2 | 2 | 2 | 2 | 3 | 2 |
| Ministry of Agriculture, Food and Rural Affairs | 11 | 14 | 15 | 24 | 16 | 16 |
| Ministry of the Interior | 0 | 0 | 1 | 1 | 2 | 1 |

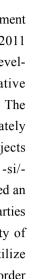
Creative Regional Development Projects (2016)

| -Si/-Gun/-Gu | Ministry in Charge |
|---|---|
| Paju-si, Gyeonggi-do | Ministry of the Interior |
| Yeongwol-gun, Gangwon-do | Ministry of Agriculture, Food and Rural Affairs |
| Seo-gu, Daejeon | Ministry of Land, Infrastructure and Transport |
| Yeongdong-gun, Chungcheongbuk-do | |
| Jeungpyeong-gun, Chungcheongbuk-do | |
| Goesan-gun, Chungcheongbuk-do | |
| Seosan-si, Chungcheongnam-do | |
| Jeongeup-si, Jeollabuk-do | Ministry of Agriculture, Food and Rural Affairs |
| Sunchang-gun, Jeollabuk-do | |
| Gangjin-gun, Jeollanam-do | |
| Gurye-gun, Jeollanam-do | |
| Wando-gun, Jeollanam-do | |
| Suncheon-si, Jeollanam-do | Ministry of Land, Infrastructure and Transport |
| Andong-si, Gyeongsangbuk-do | |
| Sangju-si, Gyeongsangbuk-do | |
| Bonghwa-gun, Gyeongsangbuk-do | |
| Goseong-gun, Gyeongsangnam-do | Ministry of Agriculture, Food and Rural Affairs |
| Hapcheon-gun, Gyeongsangnam-do | |
| Seogwipo-si, Jeju Special Self-Governing Province | |

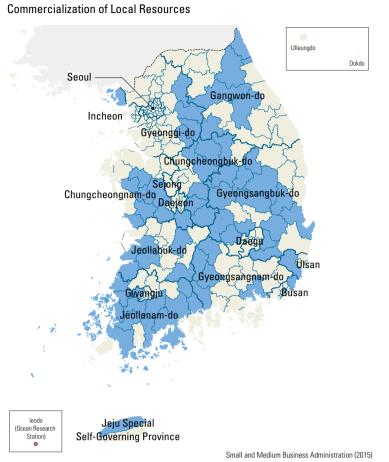
Presidential Committee on Regional Development (2016)

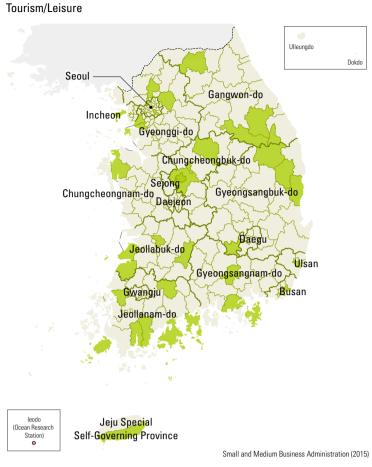
Presidential Committee on Regional Development (2016)

NATIONAL TERRITORY AND PLACES OF LIFE

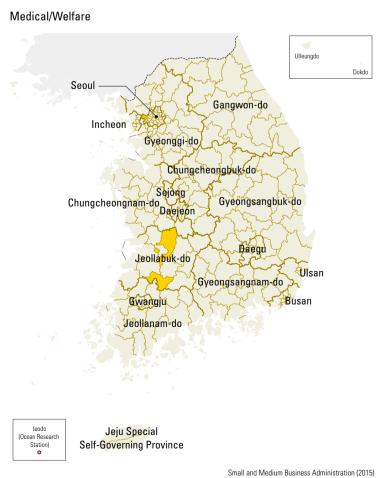


Designated Regional Specialization Clusters





Industrial R&D Education Jeju Specia Jeju Special Self-Governing Province Self-Governing Province Station) Station) Small and Medium Business Administration (2015) Small and Medium Business Administration (2015)

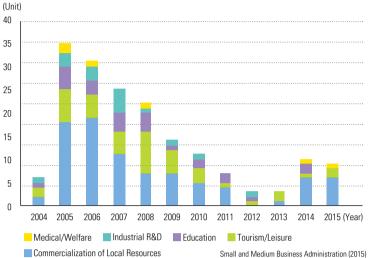


Revitalization District in Closed Mine Area



A Special Economic Zone for Specialized Regional Development refers to an area voluntarily designated for application of specialized development strategies by the local government. It is based on the "Act on Special Cases Concerning the Regulation of the Special Economic Zones for Specialized Regional Development," which enables supporting differentiated and specialized projects, conceptualized and initiated by the local governments without any guidance

Designation of Regional Specialization Clusters



or project prototype from the national government. The local government pursues regulation reform autonomously. The introduction of Special Economic Zones for Specialized Regional Development recognizes the need for regulations to be different depending on local conditions.

Regional Specialization Clusters

| Description | Com- mercial- ization of Local Re- sources | Tourism /Leisure | Educa- tion | Indus- trial R&D | Medical /Wel- fare | Total | Number of Basic Local Govern- ments in Regional Specializa- tion Clusters |
|---|---|---------------------|----------------|------------------------|--------------------------|-------|---|
| Total | 84 | 40 | 27 | 17 | 4 | 172 | 131 |
| Seoul | 1 | 2 | 4 | | 2 | 9 | 8 |
| Busan | 1 | 3 | 2 | | | 6 | 6 |
| Daegu | 1 | | | 2 | | 3 | 2 |
| Incheon | 1 | 1 | 1 | | | 3 | 3 |
| Gwangju | 1 | | 1 | | | 2 | 2 |
| Ulsan | 1 | 1 | | | | 2 | 2 |
| Gyeonggi-do | 4 | 4 | 1 | 3 | | 12 | 11 |
| Gangwon-do | 6 | 4 | | 3 | | 13 | 12 |
| Chungcheongbuk-do | 9 | 3 | 1 | 2 | | 15 | 11 |
| Chungcheongnam-do | 12 | 1 | 4 | 1 | | 18 | 12 |
| Jeollabuk-do | 6 | 4 | | 2 | 2 | 14 | 10 |
| eollanam-do | 18 | 7 | 7 | 1 | | 33 | 20 |
| Gyeongsangbuk-do | 17 | 5 | 3 | 1 | | 26 | 20 |
| Gyeongsangnam-do | 5 | 3 | 3 | 2 | | 13 | 10 |
| Jeju Special Self-Governing Province | 1 | 2 | | | | 3 | 2 |

Until the late 1980s, increasing coal demand led to increasing numbers of mines and mine workers. However, it also brought various socio-environmental problems, such as insufficient infrastructure and poor health environments due to coal dust. The national government, in this context, has funded various living environment improvement projects for miners since 1975. However, coal demand has dropped sharply since 1987, and mining towns have since declined. This has resulted in ghost towns in some locations. In 1991, the "Coal Mining Act" was amended to implement comprehensive development plans at a regional scale. According to the law, the designation of a Mining Area Development District is possible by the request of the local government governor or mayor. In May 1991, four -si and -gun districts (Taebaek-si, Jeongseon-gun, Yeongwol-gun, and Samcheok-si) were designated as Mining Area Development Districts.

In 1995, a Revitalization District for Closed Mining Area was designated based on the "Special Act for Supporting Closed Mining Area Development."

Small and Medium Business Administration (2015)



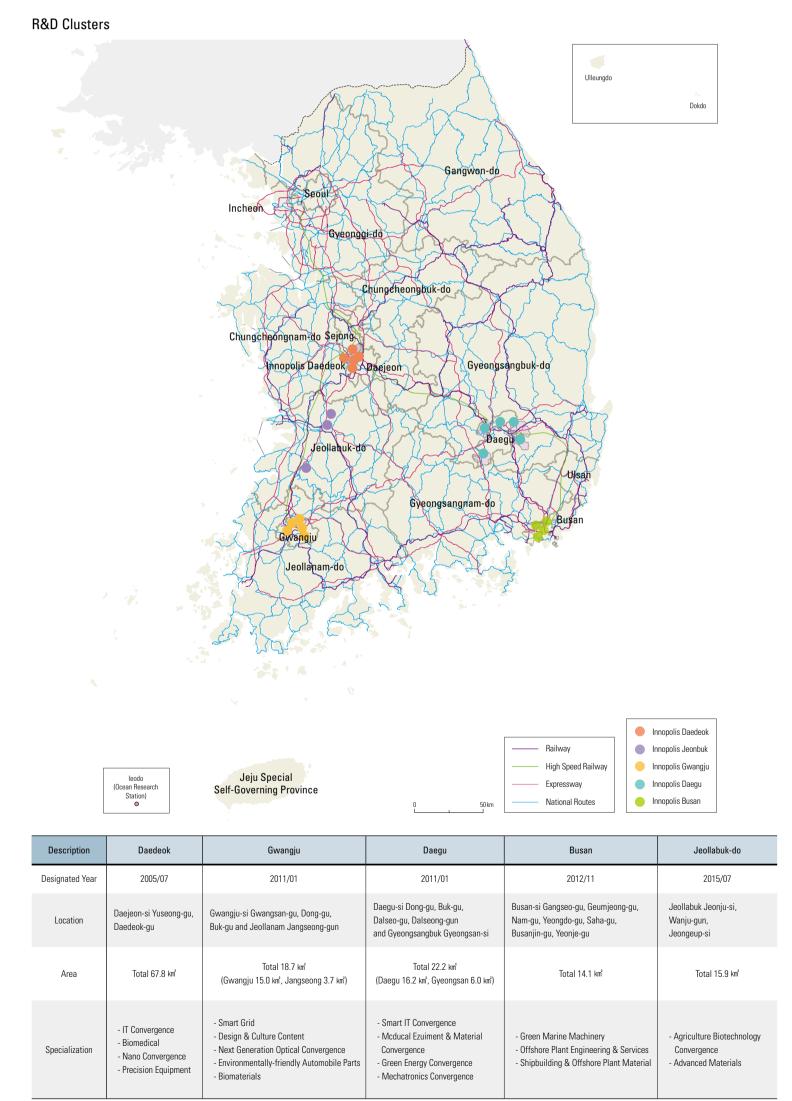
R&D cluster projects build innovation clusters led by research and development, where new knowledge in science and technology is created, transferred, and applied efficiently and productively. The goal is to create knowledge assets, which in turn are operationalized to become Korea's future growth engine.

Daedeok Science Town. The environment for research improved as government-funded research institutions, including Korea Research Institute of Standards and Science (KRISS) and Korea Atomic Energy Research Institute (KAERI), moved to Daedeok-gu. In the 1990s, Korea Advanced Institute of Science & Technology (KAIST) and private sector research institutes, including Daelim Technology R&D Institute and Honam Petrochemical Corporation Research Institute, also moved to Daedeok-gu, building a platform for fullscale industry-academia-research cooperation.

In 2003, the national government prepared a plan with a vision to

develop an R&D hub for the entire region of Northeast Asia while celebrating the 30th anniversary of the establishment of Daedeok Science Town. This led to the enactment of the "Special Act on Developing Daedeok Special R&D District" in 2005. In accordance with Article 4 of the Executive Order of the Special Act, Daedeok The R&D cluster began in the 1970s with the construction of R&D cluster designation now included Daedeok Research Park (27.8 km²), Daedeok Techno Valley (4.3 km²), Daedeok Industrial Park (3.2 km²), the greenbelt area in Buk-gu (28.6 km²), and the Agency for Defense Development area (3.9 km²)—a total area of 67.8 km². The cluster encompasses 32 dongs in Daejeon's Yuseong-gu and Daedeok-gu.

> In the second phase of the R&D cluster project, key locations across the country have been designated as R&D clusters since 2011. Currently, there are five R&D clusters, with the recent additions of Gwangju (2011) and Daegu (2011), Busan (2012), and Jeollabuk-do (2015) R&D clusters.



Innopolis Foundation (2015)

2000 -

Period of

Innovation

Building and

Take-Off

Cluster

Building **1973** • Master Plan to Construct Daedeok Science Town Prepared 1974 · Land Prepared for Daedeok Science Town, and Construction of Research Institutions Begins 1980 Government-Funded Research Institutions Begin Moving into Daedeol 1981 · New Master Plan for Daedeok Science Town Prepared 1980 - 1989 Period of **Research Base** Expansion 1986 · Daedeok Science Town Becomes Part of City of Daejeon 1990 · Private Research Institutions Move-In; Platform for Industry-Academia-Research Cooperation Built 1990 - 1999 Period of 1992 · Daedeok Science Town Completed Innovation 1993 · Daedeok Science Town Management Act Enacted 2000 · Construction of Science & Technology Network and R&D Innovation Cluster · Declaration of Daedeok Valley, High Tech Companies Begin Move-In 2004 · Daedeok R&D Cluster Approved

1970 · Built Foundation to Increase National R&D Capacity

1970 - 1979

Period of

nfrastructure

Daedeok R&D Cluster, Beginning of a New Period of Take-Off Creation of Venture Ecosystem for Industry-Academia-Research Network and High Technology Commercialization

- 2005 · "Special Act on Promotion of Special R&D Zones" Enacted; Daedeok R&D Cluster Declared and Cluster Support Center Established
- 2010 · Infrastructure for Technology Commercialization Established, Including Daedeok Tech Business Center (TBC) and Convergence Technology Research Commercialization Center (CTCC) to Export Korea's Science Park Prototype · Period of Growth to Become a World-Class Innovation Cluster
- · A World-Class Innovation Cluster Leading Commercialization of Leading Technologies
- 2011 · Second R&D Cluster Comprehensive Plan Prepared Gwangju and Daegu Clusters Newly Designated
- 2012 · "Special Act on Promotion of Special R&D Zones" Amended R&D Cluster Support Office Name Changed to R&D Cluster Promotion Foundation; Busan R&D Cluster Newly Designated
- 2013 · 40th Anniversary of Daedeok R&D Cluster Commemorative Event
- 2015 · Designation of Jeonbuk R&D Cluster

Innopolis Foundation (2015)

NATIONAL TERRITORY AND PLACES OF LIFE

Local industrial policies follow two principles: constructing local industrial base facilities and developing projects to support businesses. The gap between the number of secondary industry businesses in the Seoul Metropolitan Area and the non-Seoul metropolitan area continues to widen, from 159,860 and 2,072 in 2008 to 184,545 and 6,854 in 2012. Despite local industrial policies, local leading industries remain vulnerable due to their dependence on an industrial environment centered in the Seoul Metropolitan Area.

The support system to foster industries has changed often over the past few years. In 2012, there were strategic, specialization, and leading industries; in 2013, new specialization and leading industries; in 2014, new specialization, leading, economic cooperation region, and traditional industries. Projects were pursued based on the needs at different periods. Also, implementation

of projects within certain administrative boundaries failed to consider the continuously changing definition of economic regions. At the same time, deterioration of industrial complexes that at one time formed a local area's economic base also diminishes policy effectiveness within an administrative boundary.

To overcome these issues, the Korean Government's local industrial policies in 2014 introduced the Local Industries Development Plan (2014-2018) with the following principles: First, project implementation follows a medium-to long-term roadmap; second, collaboration occurs in which the local area leads and the national government supports; third, a comprehensive strategy is prepared to support local industries. This plan analyzes the competitiveness of major manufacturing and service industries in local areas, and presents 63 key projects, 39 collaborative projects, and 39

2013-2016

Kev Indust (Total 420.1

Billion Won)

(Total 1,059.5 Billion Won) (Total 358.)

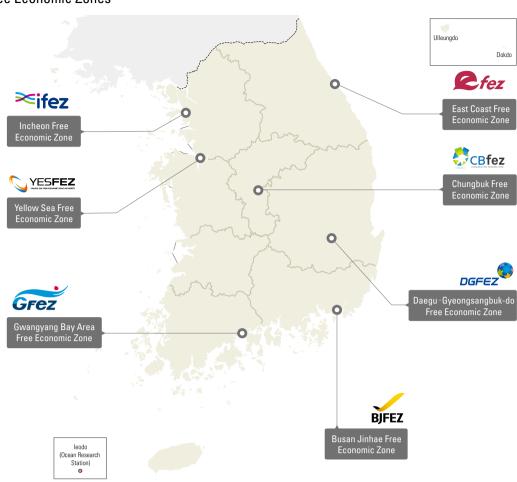
2008 - 2012

Development Project (1)

(Total 916.2 Billion Won)

Local Leading Industry Local Leading Development Industry Develop

Free Economic Zones



Designation of Free Economic Zones

| Descrip- | | | iode Area (km²) | Planned Population (Ten Thousands) | Total Cost (Trillion Won) | Investment Amount (Trillion won) | | | Number of | |
|----------|--------------------|-------------------|--------------------|--|------------------------------|----------------------------------|---------------------|--------------------|-----------|-----------|
| tion | | Periode | | | | Central Government | Local Government | Private Section | Total | Districts |
| | Incheon | 2003 _ 2020 | 170 | 63.9 | 78.02 | 0.30 | 2.73 | 42.90 | 45.93 | 27 |
| 2003 | Busan, Jinhae | | 83 | 18.9 | 11.85 | 0.56 | 0.32 | 4.28 | 5.16 | 21 |
| | Gwangyangman | | 85 | 7.0 | 12.38 | 0.80 | 0.66 | 1.50 | 2.96 | 23 |
| | Hwanghae | 2008 — 2020 | 15 | 7.0 | 4.70 | - | - | - | - | 5 |
| 2008 | Daegu, Gyeongbuk | | 30 | 9.2 | 7.89 | 0.17 | 0.08 | 2.00 | 2.25 | 10 |
| | Saemangeum, Gunsan | | 50 | 3.2 | 5.24 | 0.91 | 0.00 | 0.19 | 1.10 | 4 |
| 2013 | Donghaean 2013 | 8 | 0.8 | 1.31 | - | - | - | - | 4 | |
| 2010 | Chungbuk | 2024 | 9 | 4.4 | 1.99 | - | - | - | - | 4 |
| | Total | | 450 | 110 | 121.39 | 2.74 | 3.79 | 50.87 | 57.40 | 98 |

Post 4+9 Local Developmer Stategic Project (Total 1, 595.9 Billion Won) (Total 740.7 Billion Won) Local Specialization Industry **Regional Innovation Systems** (Total 171.5 Billion Won) Si/Gun/Gu otal 995.3 Billion Won Metropolitar Center Economic Centers Support Program Ministry of Trade, Industry and Energy (2015)

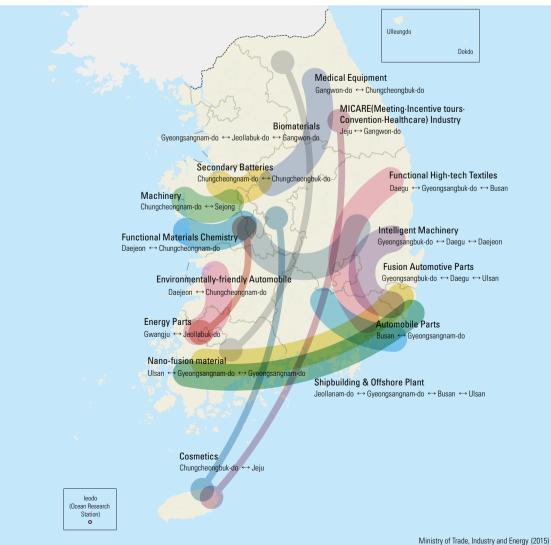
4 Local Development Project (2) 2004 – 2008 Year

(Total 949.6 Billion Won)

Proiect (2)

2003 - 2007

Distribution of Economic Cooperation Regions

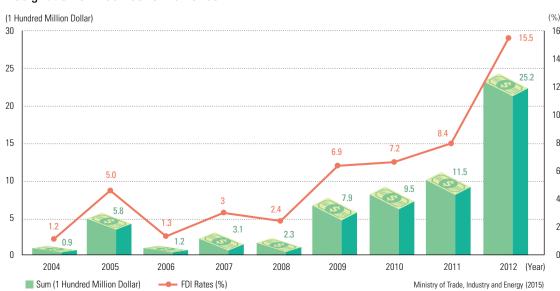


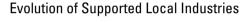
locally based projects that have been selected. In particular, the Plan introduces the concept of industrial cooperation regions, based on demand for cooperation among -si/-do districts where given businesses are located. This enables policies that foster local industries beyond the administrative boundaries.

Free economic zones are created to improve the investment climate for foreign businesses and living conditions for foreigners. As Korea's po-Act) was enacted after a discussion to enhance competitiveness at the national level began. Un- East Coast, and Chungcheongbuk-do regions. der this law, incentives including exemptions of

tax and regulations are offered, as well as special benefits to facilitate the settlement of foreigners. Four zones were designated in 2003: Incheon, Busan, Jinhae-si, and Gwangyangman. Repeated amendments of the Act attempted to change zone designation eligibility, relax building restrictions, and ease regulations to permit foreign medical institutions inside the zones. In 2009, the Act was upgraded as the "Special Act on Designation and Management of Free Economic Zones" (Free tential growth rate decreased in the early 2000s, Economic Zone Act). As of December 2015, there the "Act on Designation and Management of are free economic zones in the Incheon, Busan/ Free Economic Zones" (Free Economic Zone Jinhae-si, Gwangyangman, Hwanghae, Daegu/ Gyeongsangbuk-do, Saemangeum/Gunsan-si,

Designation of Free Economic Zones





1999 - 2002

4 Local Development

9 Local Development

2002 – 2007 Year

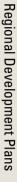
1999 – 2003 Year

Description

Inter-Regions

Si/Do

Ministry of Trade, Industry and Energy (2013)





Making the National Territory Safer

Local Governments with a First-Class Local Safety Index Rating in Each Category

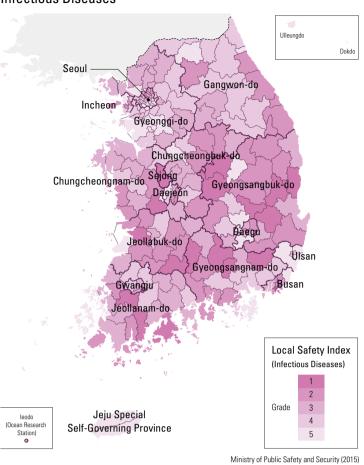
| Description | Special megalopolis | -Do | -Si | -Gun | -Gu | |
|---------------------|------------------------|--------------|--|--|--|--|
| Fires | Seoul | Gyeonggi-do | Suwon, Gunpo, Seongnam, Anyang, Bucheon, Ansan, Uiwang | Dalseong, Gijang, Ulju, Jeungpyeong, Jeongseon, Yanggu, Goseong, Ulleung | Guro, Dongjak, Busanbuk, Yeonsu, Bupyeong, Gyeyang, Ulsanbuk | |
| Traffic Accidents | Seoul | Gyeonggi-do | Suwon, Gunpo, Seongnam, Anyang, Bucheon, Gwangmyeong, Guri | Dalseong, Gijang, Ongjin, Ulju, Jeungpyeong, Hwacheon, Chilgok, Ulleung | Songpa, Gwangjin, Jungnang, Yangcheon, Dongjak, Gangdong, Bupyeong | |
| Natural Disasters | Sejong | Jeollabuk-do | Goyang, Gimpo, Sokcho, Gimcheon, Yeongju, Sangju, Yangsan | Dalseong, Ungjin, Yeongdong, Jinan, Muju, Imsil, Goryeong, Changnyeong | Jongno, Seongdong, Gwangjin, Mapo, Gwanak, Daegujung, Ulsannam | |
| Crimes | Sejong | Jeollanam-do | Gwacheon, Namyangju, Uiwang, Yongin, Gyeryong, Namwon, Sangju | Ongjin, Jinan, Imsil, Sunchang, Sinan, Yeongyang, Ulleung, Hapcheon | Dobong, Suseong, Yeonsu, Gyeyang, Incheonseo, Yuseong, Ulsanbuk | |
| Safety Accidents | Sejong | Gyeonggi-do | Suwon, Gunpo, Bucheon, Gwangmyeong, Yangsan, Siheung, Jeonju | Dalseong, Gijang, Jeungpyeong, Eumseong, Hongseong, Muan, Yeonggwang, Chilgok | Songpa, Yangcheon, Gangdong, Daeguseo, Yeonsu, Bupyeong, Gyeyang | |
| Suicides | Sejong | Gyeonggi-do | Gunpo, Gwacheon, Uiwang, Yongin, Hwaseong, Gyeryong, Geoje | Dalseong, Ongjin, Ulju, Jeungpyeong, Hwacheon, Yanggu, Muan, Ulleung | Songpa, Gwangjin, Seodaemun, Yangcheon, Seocho, Daejeonseo, Yuseong | |
| Infectious Diseases | Ulsan | Gyeonggi-do | Suwon, Gwacheon, Osan, Yongin, Hwaseong, Gyeryong, Geoje | Dalseong, Gijang, Ulju, Jeungpyeong, Hwacheon, Jincheon, Chilgok, Ulleung | Songpa, Seocho, Incheonseo,Yuseong, Ulsan Nam-Dong-Buk | |

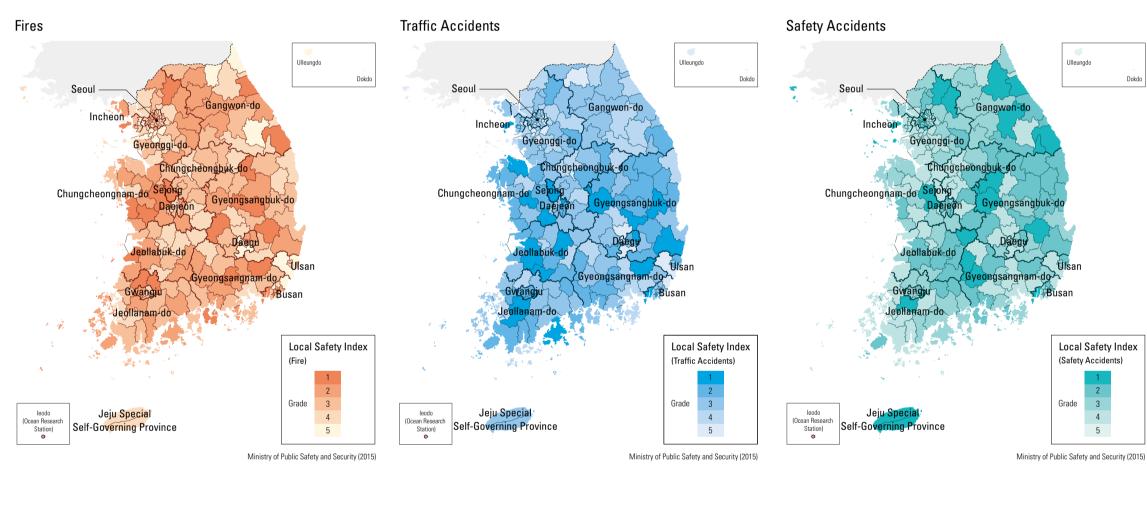
Determining the level of safety in an area is a prerequisite for making the national territory safer. In this context, the Ministry of Public Safety and Security announced a local safety index for all local governments in November 2015. The index quantifies the safety level of a given area, using official statistics collected by the government in accordance with Article 66 of the "Framework Act on

the Management of Disasters and Safety." Specifically, areas were categorized into five safety classes by examining seven fields-fires, traffic accidents, natural disasters, crimes, safety accidents, suicides, and infectious diseases. The percentiles of the five safety classes are 10, 25, 30, 25 and 10, totaling 100.

Ministry of Public Safety and Security (2015)

Infectious Diseases

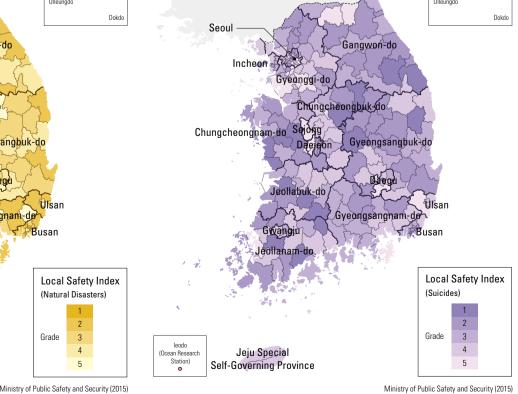




Natural Disasters Chungcheongnam-d

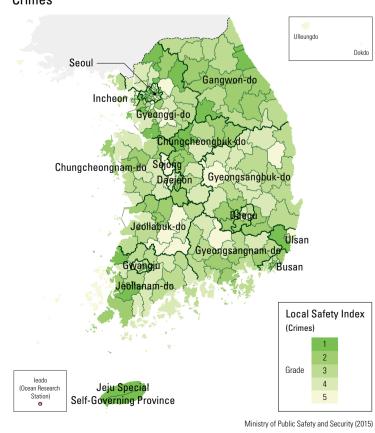
Local Safety Index

(Natural Disasters)



Suicides



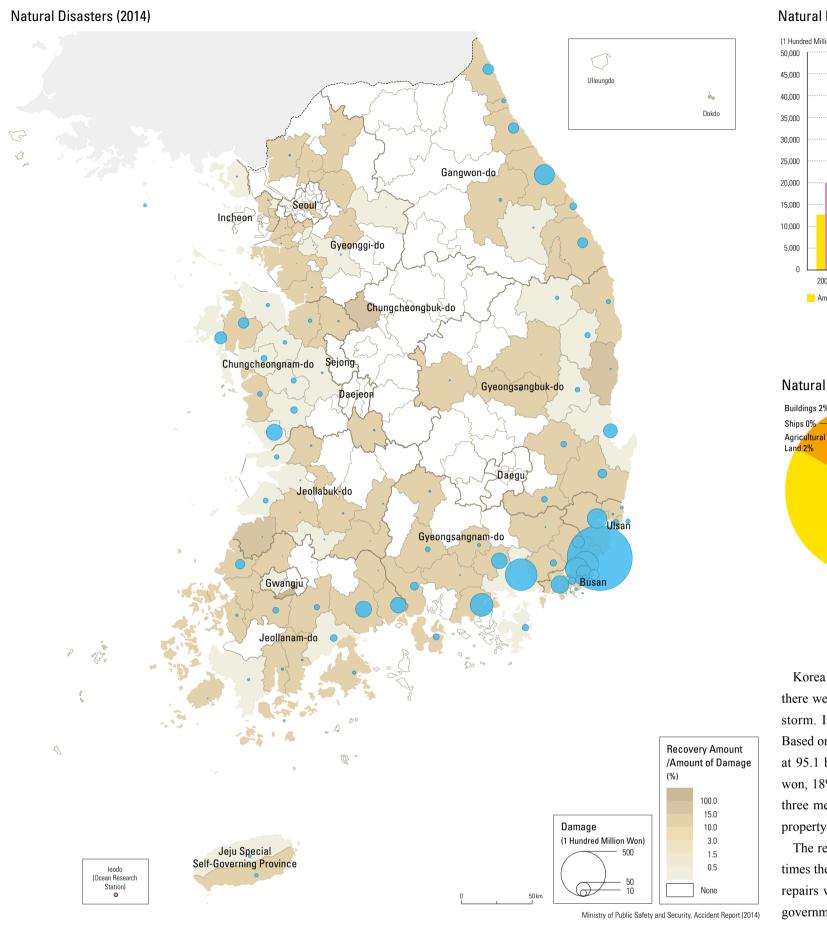


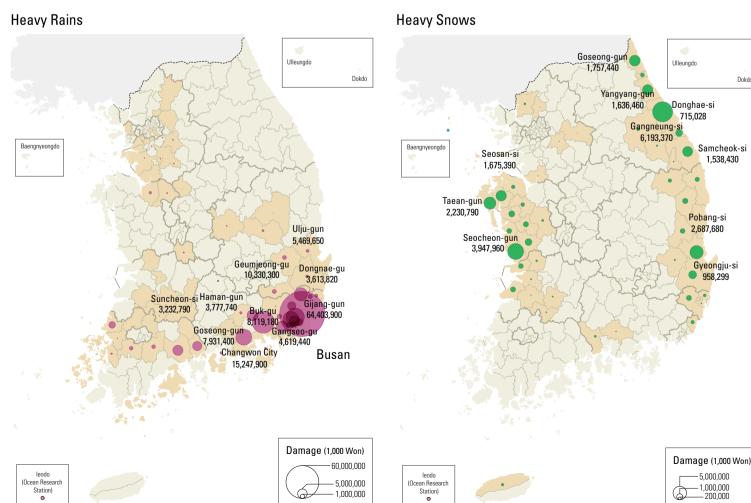
Station)

Jeju Special

Self-Governing Province

NATIONAL TERRITORY AND PLACES OF LIFE

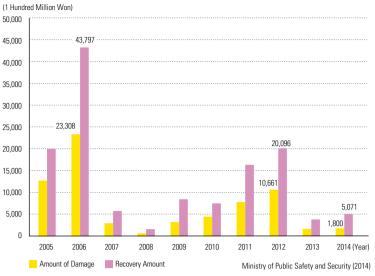




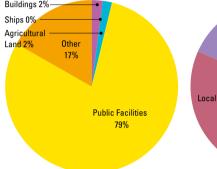
Ministry of Public Safety and Security (2015)

Ministry of Public Safety and Security (2015)

Natural Disasters Property Damage and Repair Costs

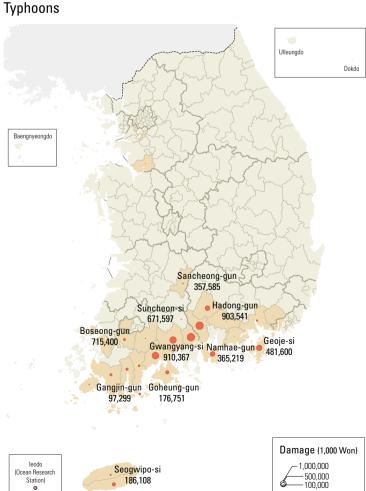


Natural Disasters Damage Type and Repair Funding Sources



Korea's natural disasters fall into four major categories. In 2014, there were 15 heavy rains, 4 heavy snows, 3 typhoons, and 1 windstorm. In total, there were 23 events that caused major damage. Based on property damage, Busan accounted for 52% of all damages at 95.1 billion won, followed by Gyeongsangnam-do (32.6 billion won, 18%) and Chungcheongnam-do (13.6 billion won, 7%). These three metropolitan cities and provinces suffered almost 80% of all property damage.

The repair cost was 507.1 billion won in 2014, approximately 2.8 times the property damage value of 180 billion won. The funding for repairs was provided by the national government (58%), the local governments (24%), and the victims.



| Private Section 18% | |
|------------------------|---------------------------|
| al Government 24% | Central Government 58% |
| | |

Ministry of Public Safety and Security (2014)

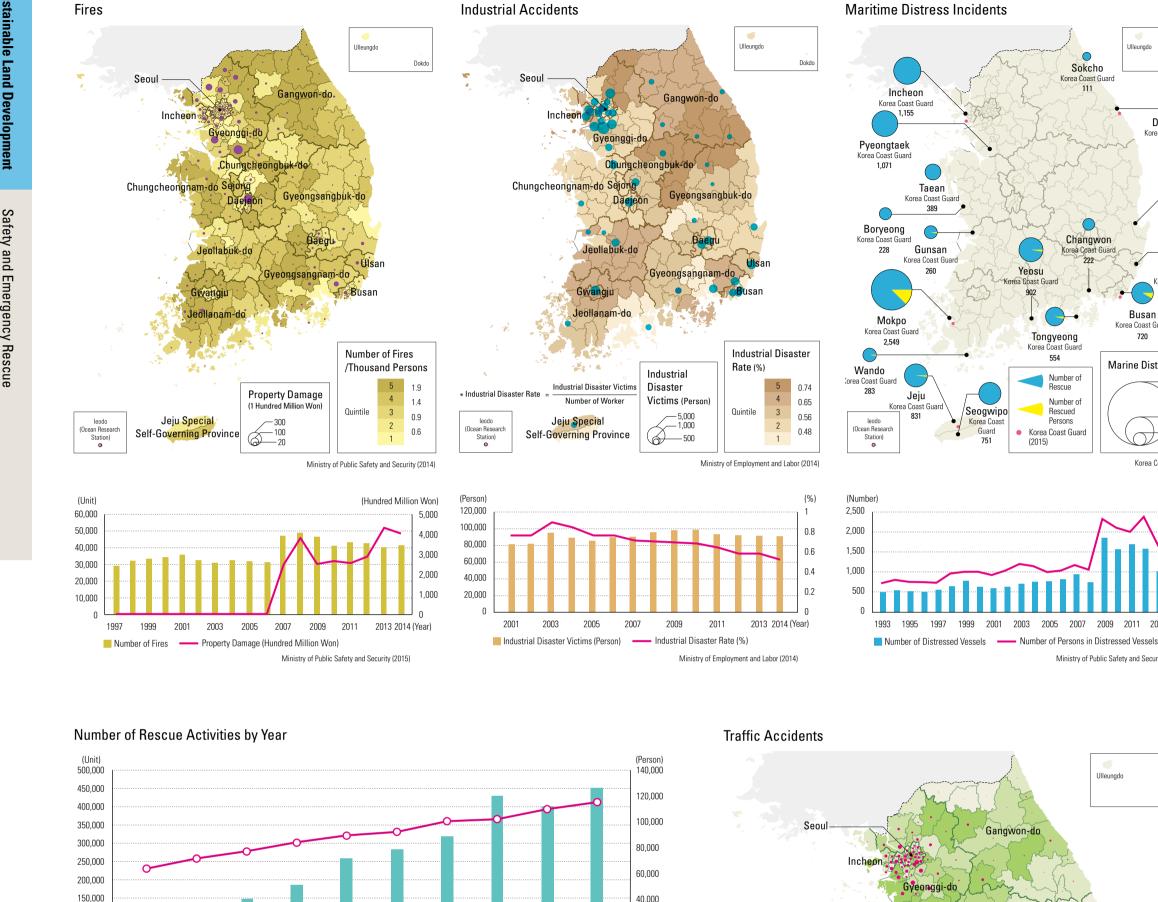
| | Damage (1,000 Won) |
|---------------|---------------------------------|
| | |
| Ministry of P | ublic Safety and Security (2015 |





093

Safety and Emergency Rescue



2006 2007 2008 2005 Number of Rescue -O- Number of Rescued Persons

100,000

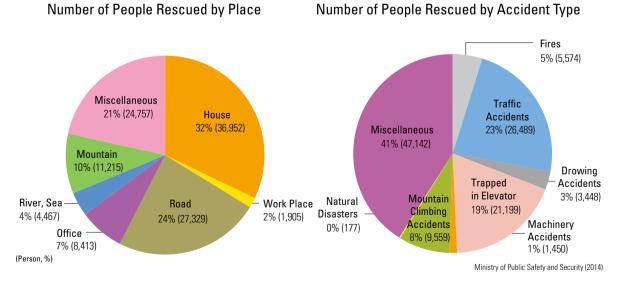
50.00

Number of People Rescued by Accident Type

2012

2013

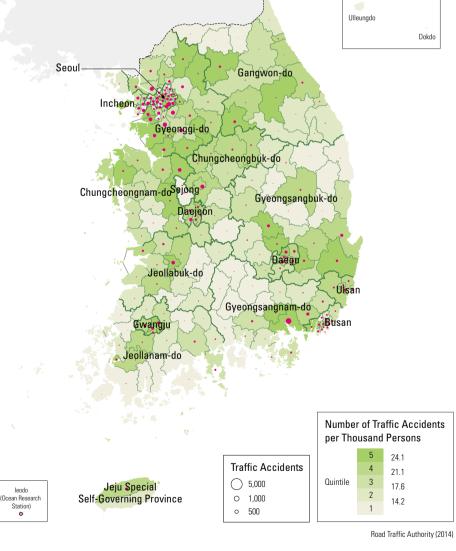
Ministry of Employment and Labor (2014)



2009

2010

2011



Dongha

Pohang

Korea Coast Gua

720

Marine Distress

2009 2011 2013 2014 (Yea

Ministry of Public Safety and Security (2014)

Korea Coast Guard (2014)

Number of Rescue

Number of Rescued Persons

Korea Coast Guard

(2015)

2003 2005 2007

Rescue operations are those that protect life, body, and property, and emergency medical services refers to first aid and transport to hospitals. The data on rescue operations and emergency medical services are based on situations where emergency operations centers in fire stations across the country received 119 calls and dispatched rescue squads to perform the necessary actions. The number of rescue and emergency medical service operations is on the rise, with an

as well as an increase in the use of cars. In 2014, 1.68 million people were transported for medical treatment, a 56-fold increase from 30,000 in 1985. The number of people rescued reached 120,000 in 2014, twice as many as 60,000 in 2005.

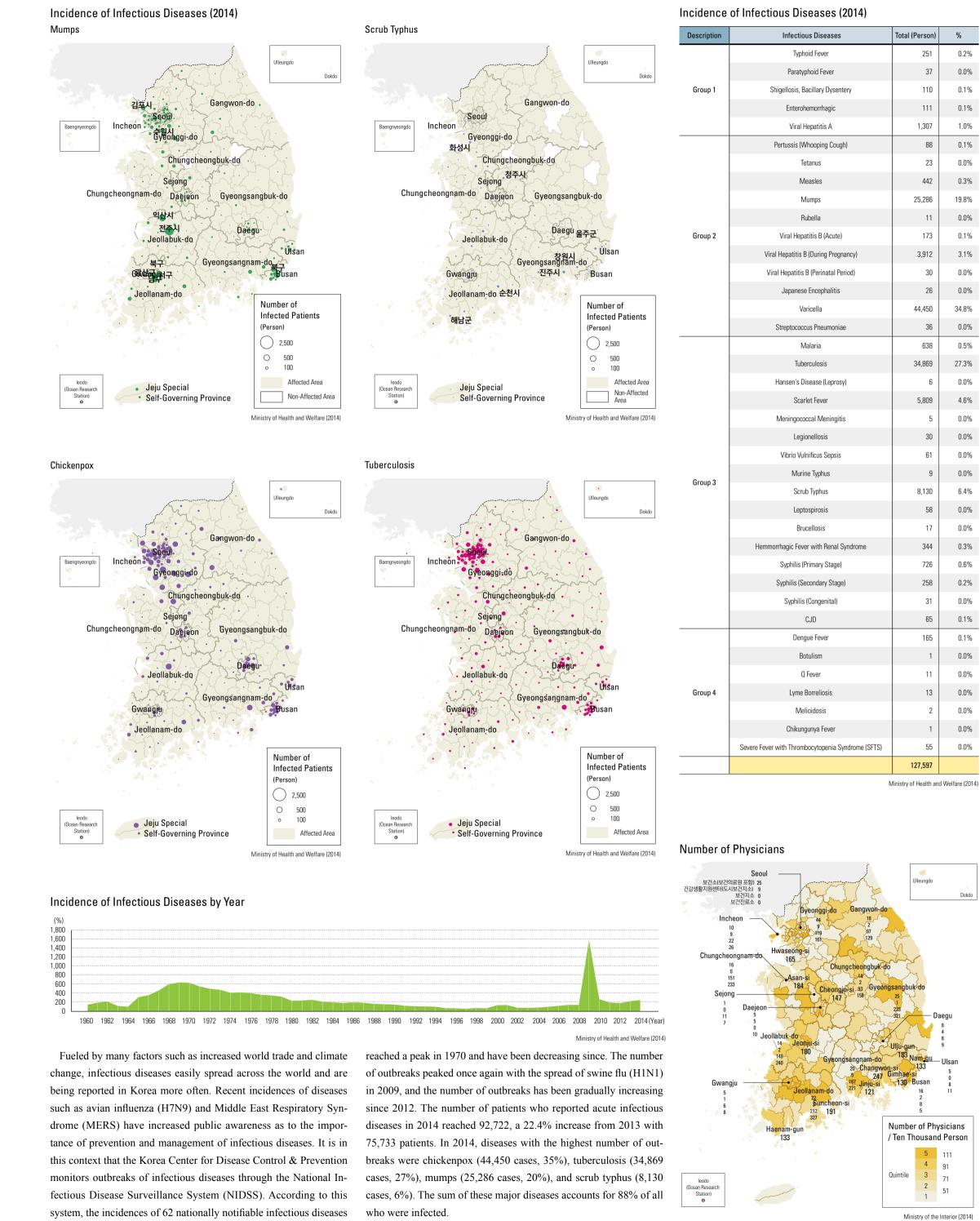
40.000

2014 (Year)

An examination of where the accidents took place reveals that and industrial accidents remain relatively stable, the number of fires 32% of all rescues took place in homes, and 52% of all medical transport also originated from homes, indicating that the home is aging population and more people enjoying recreational activities, the primary place for requesting emergency rescue activities. By

type, traffic accidents are the most common type of emergency situation at 23%, followed by "trapped in elevator" (19%), mountain climbing accidents (5%), fires (5%), and drowning accidents (3%). Annual trends indicate that while the number of traffic accidents and maritime distress incidents have increased greatly since 2007 and 2009, respectively.

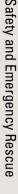
NATIONAL TERRITORY AND P



| LACES OF LIFE |
|---------------|
|---------------|

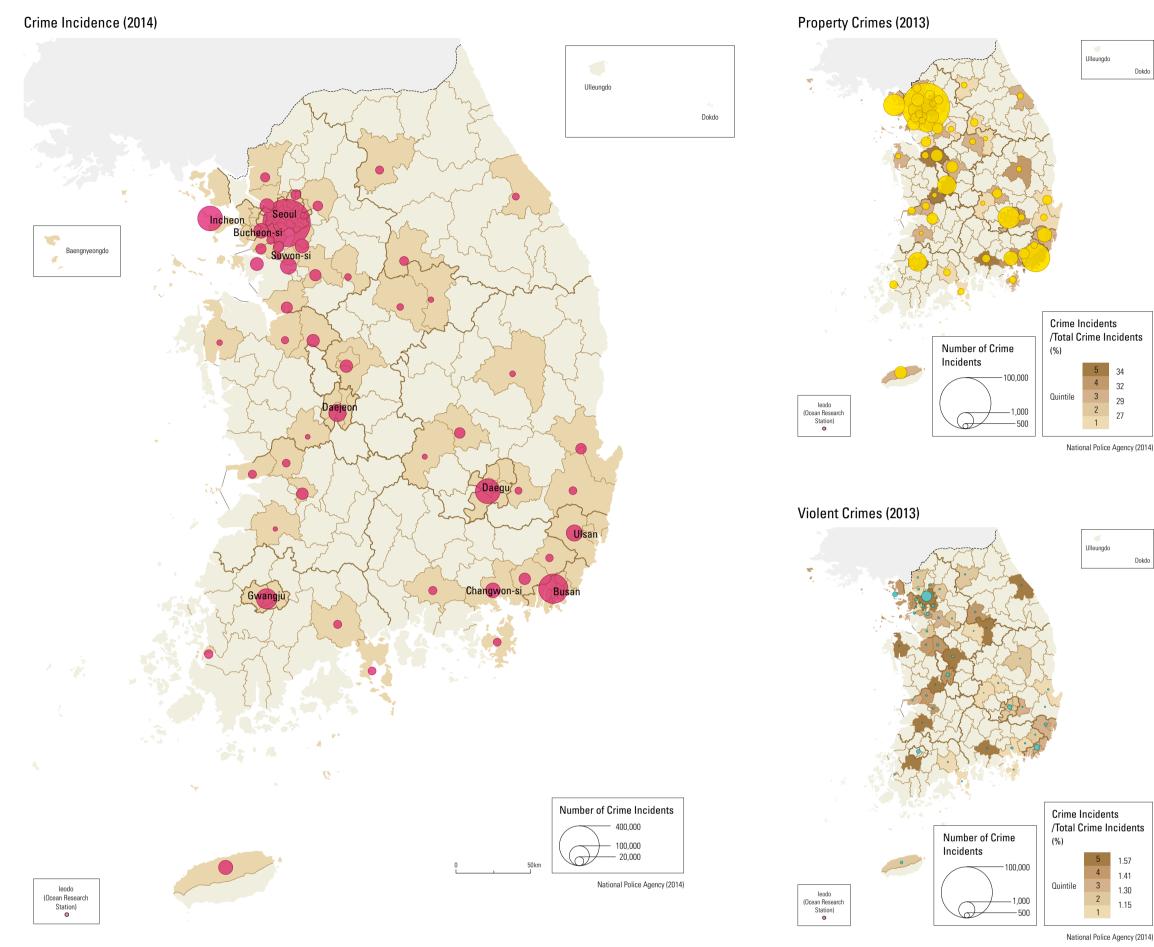
| | Total (Person) | % |
|-------------|-----------------------|------------------|
| | 251 | 0.2% |
| | 37 | 0.0% |
| , | 110 | 0.1% |
| | 111 | 0.1% |
| | 1,307 | 1.0% |
| | 88 | 0.1% |
| | 23 | 0.0% |
| | 442 | 0.3% |
| | 25,286 | 19.8% |
| | 11 | 0.0% |
| | 173 | 0.1% |
| cy) | 3,912 | 3.1% |
| (৮ | 30 | 0.0% |
| | 26 | 0.0% |
| | 44,450 | 34.8% |
| | 36 | 0.0% |
| | 638 | 0.5% |
| | 34,869 | 27.3% |
| | 6 | 0.0% |
| | 5,809 | 4.6% |
| | 5 | 0.0% |
| | 30 | 0.0% |
| | 61 | 0.0% |
| | 9 | 0.0% |
| | 8,130 | 6.4% |
| | 58 | 0.0% |
| | 17 | 0.0% |
| drome | 344 | 0.3% |
| | 726 | 0.6% |
| | 258 | 0.2% |
| | 31 | 0.0% |
| | 65 | 0.1% |
| | 165 | 0.1% |
| | 1 | 0.0% |
| | 11 | 0.0% |
| | 13 | 0.0% |
| | 2 | 0.0% |
| | 1 | 0.0% |
| rome (SFTS) | 55 | 0.0% |
| | 127,597 | |
| A | Ainistry of Health an | d Welfare (2014) |



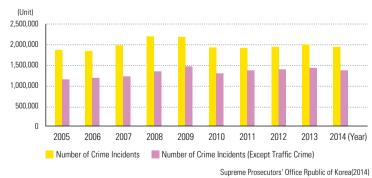


095

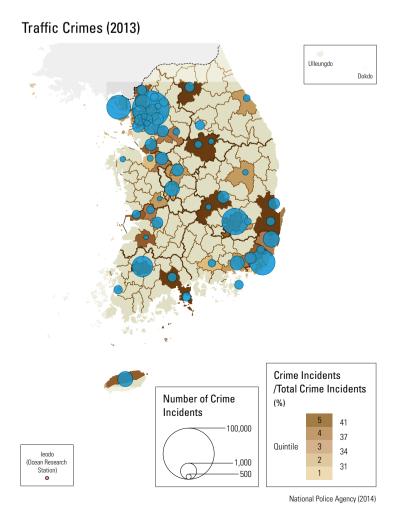
Public Safety



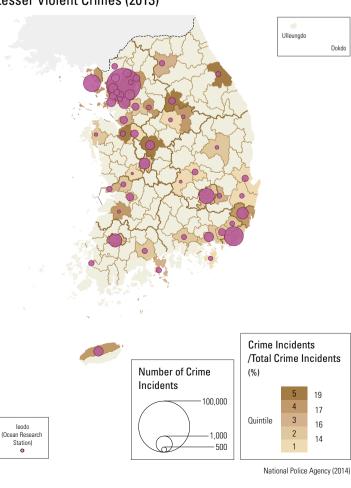
Crime Incidence by Year



According to the Korean National Police Agency, there were 1,778,966 crime incidents in 2014, or 3,528 incidents per 100,000 persons. The four major crime categories are as follows: violent (heinous) crimes including murder, burglary, arson, and sexual crimes; property crimes including theft and fraud; less violent crimes including ones using weapons or violence; and traffic crimes including speeding, driving under the influence, and illegal parking. By region, Gyeonggi-do had the highest number of crimes (404,390 incidents), followed by Seoul (355,991 incidents) and Busan (133,755 incidents). However, on a per population (per 100,000 persons) basis, a different picture emerges: Jeju (5,379 incidents) has the highest number of crimes per 100,000 persons, followed by Daegu (3,893 incidents) and Ulsan (3,617 incidents).

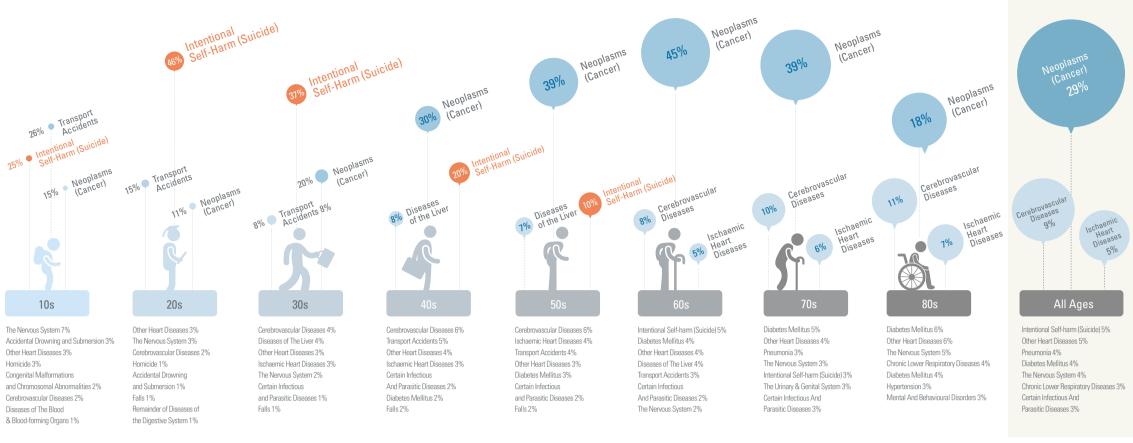


Lesser Violent Crimes (2013)



NATIONAL TERRITORY AND PLACES OF LIFE

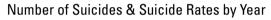
Cause of Death by Age

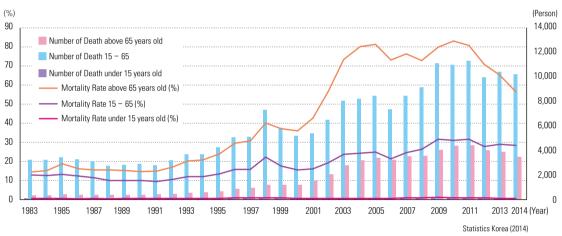


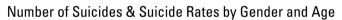
The World Health Organization defines suicide as the act of deliberately killing oneself. According to Statistics Korea, the leading causes of deaths in Korea in 2014 were cancer (29%), strokes (cerebrovascular disease, 9%), heart disease (5%), and suicide (5%). Korea has a relatively high suicide rate. In particular, the suicide rate is higher elderly population is rising even higher. Also, men commit suicide more often than improvement centers.

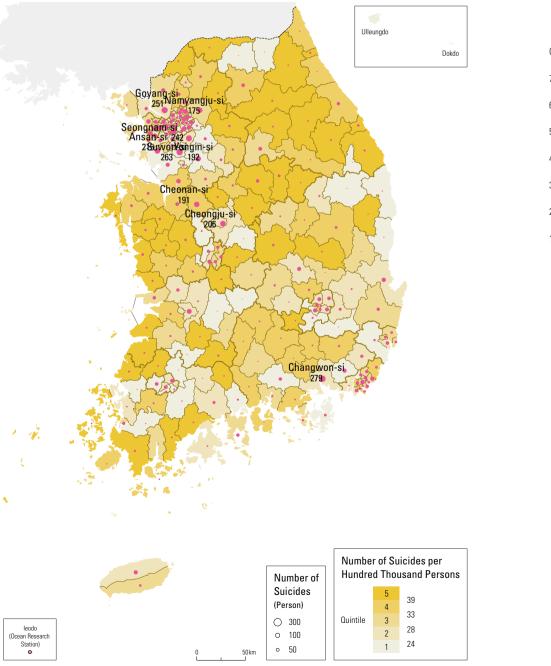
Number of Suicides & Suicide Rates at -Si/-Gun/-Gu Level

women. Thus, since 2015, 14 Ministries of the Korean Government (including the Ministry of Health and Welfare, the Ministry of Gender Equality and Family, and the Ministry of Education) have been working together to prevent suicides by implementing ten projects from the "Second Suicide Prevention Comprehensive Plan (2009-2013)." The in older age groups, and the rate among the local governments are also operating either suicide prevention centers or mental health

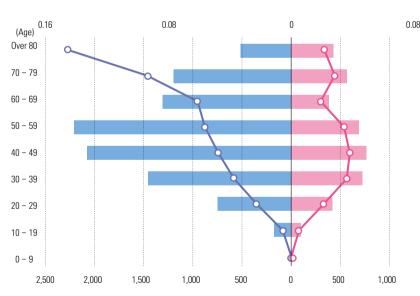








Statistics Korea (2014)



Suicide Prevention Policy

| 10 Projects | Ministry in Charge |
|--|--|
| Increase people's awareness of suicide | Ministry of Health and Welfare, Ministry of the Interior |
| Strengthen individual/social capacity to respond to risks of suicide | Ministry of Health and Welfare, Ministry of Gender Equality and Family, Ministry of Education, Ministry of Land, Infrastructure and Transport |
| Reduce access to means and tools that can assist suicide. | Ministry of Environment, Ministry of Agriculture, Food and Rural Affairs, Ministry of Health and Welfare, Ministry of Gender Equality and Family, National Police Agency, Korea Communications Commission, Ministry of Land, Infrastructure and Transport |
| Emphasize the responsibility of mass media in influencing people to commit suicide. | Ministry of Health and Welfare |
| Increase mental health services for suicide high-risk group | Ministry of Health and Welfare, Ministry of National Defense, Ministry of Justice |
| Increase education and training of people who can prevent suicides in local communities. | Ministry of Health and Welfare, National Police Agency, National Emergency Management |
| Establish legal and administrative infrastructure for suicide prevention. | Ministry of Health and Welfare |
| Build appropriate infrastructure to provide suicide prevention services. | Ministry of Health and Welfare, National Police Agency, National Emergency Management |
| Construct research/monitoring network to prevent suicides. | Ministry of Health and Welfare, Statistics Korea, National Police Agency |
| Develop evidence-based suicide prevention policies. | Ministry of Health and Welfare |
| | National Assembly Budget Office (2013) |





Statistics Korea (2014

