

# NATIONAL TERRITORY AND PLACES OF LIFE

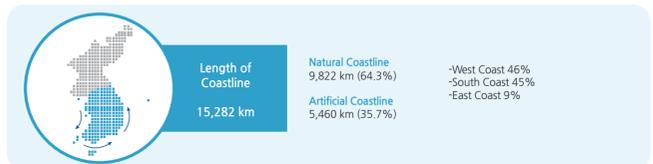
## Use of National Territory

The territory of the Republic of Korea is the Korean Peninsula and its annexed islands, with a total area of 223,617 km<sup>2</sup> as of the end of 2020 (South Korea 100,413 km<sup>2</sup>, North Korea 123,214 km<sup>2</sup>). South Korea accounts for 44.9% of the territory of the Republic of Korea. Forests occupy 63.3% of South Korea, followed by rice paddy fields (11.1%), farm fields (7.5%), roads (3.4%), and building sites (3.2%). The natural environment composed of

forests and rivers (2.9%) accounts for two-thirds (66.2%) of the national land area. The land for agricultural and fishing industries, including farm fields, rice paddy fields, orchards, and ranch sites, is 19,935 km<sup>2</sup>, accounting for about 20.0% of the total land area, and residential land is 3.2%.

The total length of Korea's coastline is 15,282 km as of 2020, increasing 319 km from 2014. The natural coastline decreased

by 55 km, and the artificial coastline increased by 374 km due to coastal development such as coastal reclamation, breakwater, and coastal roads. The west and the south coasts, which have a lot of terrain curvature, account for 91% of the total length of the coastline, and the east coast accounts for 9%.



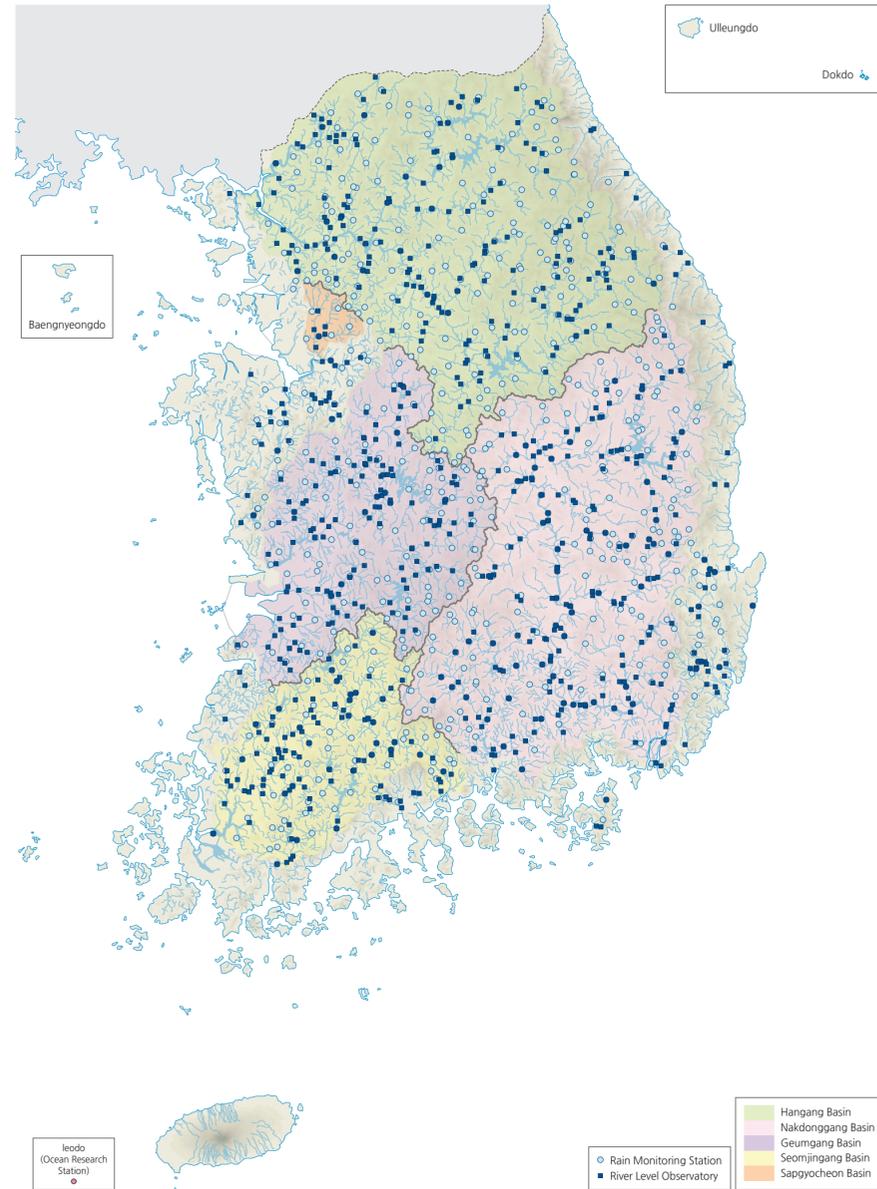
## National Territory

National Territory



## Water Resources

### Watersheds Observatory



Water played an important role in Korea's urban and industrial development in the second half of the 20th century. Many cities and industrial facilities have grown around rivers rich in water, such as the Hangang and Nakdonggang. Therefore, Korea has put a lot of effort into making easy use of water resources, which are essential for economic development.

The annual mean precipitation is 1,283 mm (1,054 mm in North Korea), higher than the global average (973 mm). There are significant annual and seasonal variations in precipitation. Topographic diversity brings a marked difference in precipitation. Since 2000, precipitation varied as little as 949 mm (2015), 967.8 mm (2017), 988.7 mm (2008), and as much as 1,622.6 (2011), 1,470.6 mm (2002), and the ratio between the annual minimum and maximum precipitation reaches 1.7. By season, since 2000, 54% of annual precipitation has been concentrated in summer and only 7% in winter. In 2011, 1053.6 mm, or 67% of the annual precipitation, fell in summer, while only 3%, or 45.6 mm, fell in winter. Regional variations in annual precipitation are also large. In 2015, Daegu recorded 548.5 mm of precipitation, while Jeju received 2,108.8 mm.

Of the total water resources of 132.3 billion m<sup>3</sup>, 43% is lost by evaporation, and 29% by surface runoff due to steep slopes and heavy downpours. Most of the runoff is concentrated during the flood season from June to September. The amount of runoff also has a wide variation, from the lowest of 40.6 billion m<sup>3</sup> (1988) to the highest of 129.3 billion m<sup>3</sup> (2003). As of 2016, groundwater use accounted for only 1.4% of the total facility capacity of 37,219,000 m<sup>3</sup>/day or 531,000 m<sup>3</sup>/day, and the intake capacity of river drift facilities was 18,521 m<sup>3</sup>/day, accounting for 49.8% of the total. Therefore, it calls for more sophisticated policies to efficiently manage water resources.

Of the total water resources, only 28% are usable. Therefore, the central government has put much effort into water management to efficiently utilize the precipitation concentrated in a particular season by building dams. Currently, dams provide about 17% of water resources.

The Framework Act on Water Management was enforced in June 2019, and the government is establishing a sustainable water management system. According to this Act, the National Water Management Committee under the jurisdiction of the President was launched on August 27, 2019. This committee consists of two co-chairs, a government representative (Prime Minister) and a private representative, seven ministers of water-resource management-related ministries (Minister of Finance, the Minister of Public Administration and Security, the Minister of Agriculture, Food and Rural Affairs, the Minister of Trade, Industry and Energy, the Minister of Environment, the Minister of Land, Infrastructure, and Transport, and the Minister of Oceans and Fisheries), the Minister of Office for Government Policy, the Commissioner of the Korea Meteorological Administration, and the Commissioner of the Korea Forest Service. The National Water Management Committee approved the 10 Year Master Plan for National Water Management prepared by the Minister of Environment. The first National Water

Management Plan was implemented in June 2021. It is a high-level plan that provides the basic direction for all government policies related to water, such as Comprehensive Measures for Non-Point Pollution Source Management and the National Sewage Master Plan, and plans related to water resource use, such as the Long-Term Comprehensive Plan for Water Resources, the River Basin Water Resource Management Plan, and the Master Plan for Groundwater Management.

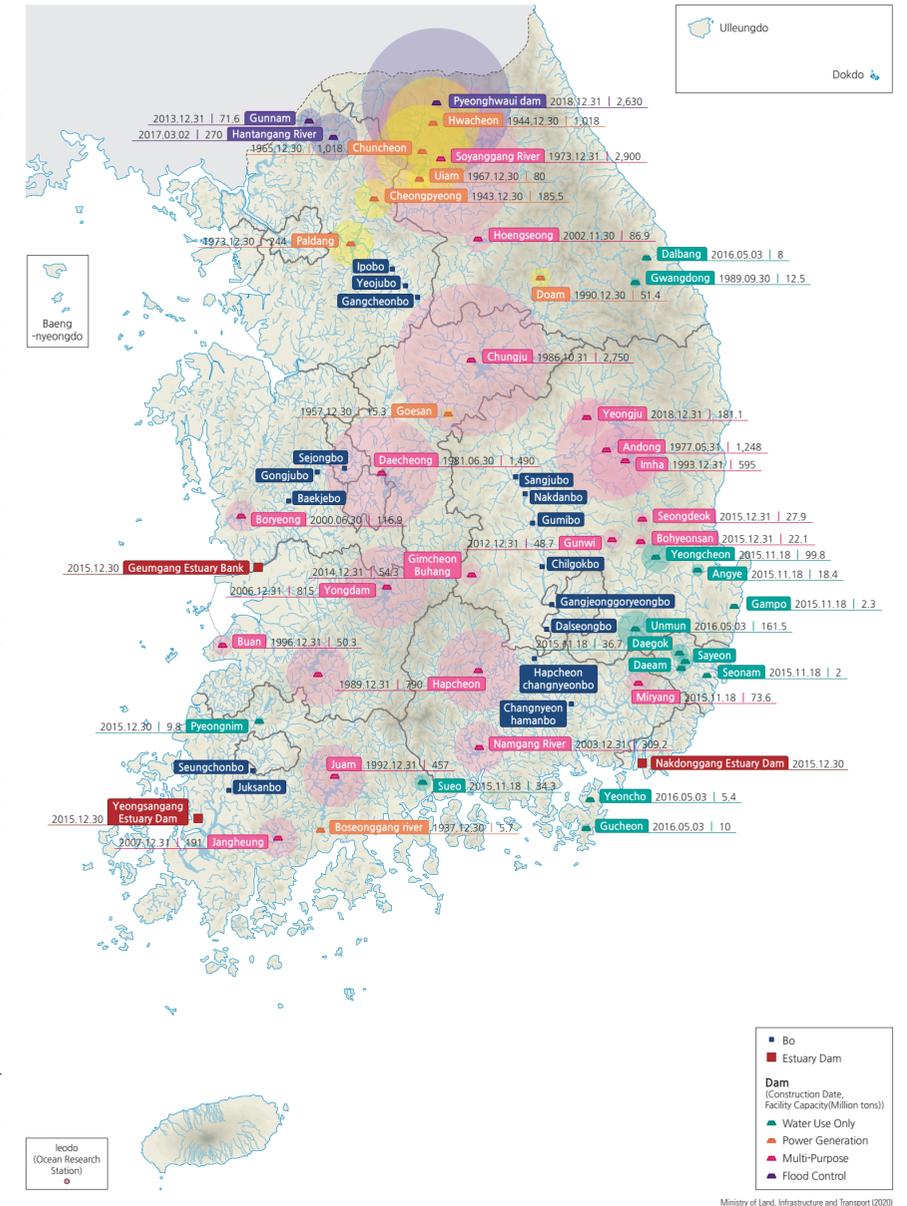
In 2018, the total water use was estimated at 36.6 billion m<sup>3</sup> (37.2 billion m<sup>3</sup> in 2016): dams supplied 53.5% (20.39 billion m<sup>3</sup>) of the total water use, while river water supplied 35.0% (13.32 billion m<sup>3</sup>). The underground water is estimated at 20 billion m<sup>3</sup>. It is estimated that 13 billion m<sup>3</sup> were developed, but only 2.91 billion m<sup>3</sup> were used. Reuse water (1.11 billion m<sup>3</sup>), reclaimed sewage water (360 million m<sup>3</sup>), and rainwater (8 million m<sup>3</sup>) accounted for 2.8% of the total water use. About 1/3 (12.2 billion m<sup>3</sup>) of the total water use was used for river maintenance, and two-thirds (25.0 billion m<sup>3</sup>) was supplied for agricultural, domestic, and industrial purposes. Agricultural water accounted for 63% (15.4 billion m<sup>3</sup>) of water use, followed by domestic water 30% (7.4 billion m<sup>3</sup>) and industrial water 7% (1.6 billion m<sup>3</sup>). Agricultural water decreased from 16 billion m<sup>3</sup> in 2003 and was maintained at 15.2 to 15.4 billion m<sup>3</sup> after 2007. Domestic water shows little change from 7.6 billion m<sup>3</sup> in 2003. Industrial water also showed no significant difference from 2.4 billion m<sup>3</sup> in 1990 to 2.3 billion m<sup>3</sup> in 2014. In 2018, as a new standard to classify purified water used for industrial purposes as domestic water was applied, the industrial water use became 1.6 billion m<sup>3</sup>.

Water is mainly supplied through metropolitan or industrial waterworks operated by Korea Water Resources Corporation or local waterworks operated by local governments.

In 2018, these two waterworks operated 503 water intake facilities (capacity of 32,861,000 m<sup>3</sup>/day) and 517 water purification facilities (capacity of 30,445,000 m<sup>3</sup>/day). The metropolitan or industrial waterworks operated 29 water intake facilities with a capacity of 13,916,000 m<sup>3</sup>/day, 42.3% of the total facility capacity, and 71 water purification facilities and 10,346,000 m<sup>3</sup>/day, which is 34% of the total facilities capacity. However, it operated a total length of 211,771 km of the water supply pipelines, accounting for 97.5% of the total (217,150 km). In addition, there are 14,933 village water supply facilities and small-scale facilities operating in areas where water supply is limited. The facility capacity is 1,361,000 m<sup>3</sup>/day, 4% of the total water intake capacity.

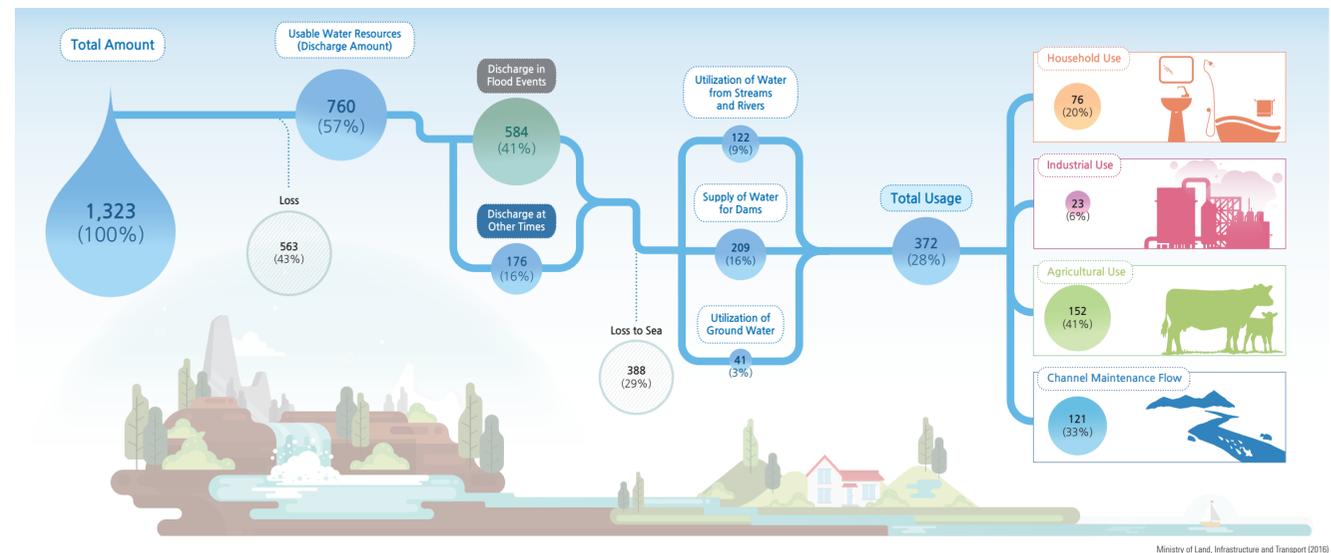
Korea Hydro & Nuclear Power operates dams to generate electricity and supply water through Hwacheon Dam, Chuncheon Dam, Uiam Dam, Cheongpyeong Dam, and Paldang Dam through a joint operation council for dams and weirs in the Hangang river system. In particular, upstream of Paldang Dam supplies 1.3 billion tons of water for regional water supply and 3.9 billion tons of annual river maintenance water per year. City water of Chuncheon-si is provided from Yongsan intake (up to 53,000 tons/day) and Soyang intake (165,000 tons/day).

### Dams and Water Resources Utilization



Ministry of Land, Infrastructure and Transport (2020)

### Use of Water Resources



Ministry of Land, Infrastructure and Transport (2016)

### Planning of the Water Vision

	Planning Period	Year of Planning	Goal	Objectives
1st Water Vision	1966-1975	1966	Construction of Multi-Purpose Dams	- Construction of Agricultural Reservoirs for a Stable Supply of Agricultural Water to Increase Food Production
2nd Water Vision	1981-2001	1980	Construction of Dam and Flood Control	- Construction of Multi-Purpose Dams, Water-only Dams, and Estuaries for Stable Water Supply
3rd Water Vision	1991-2011	1990	Development and Management of Water Resources	- Promotion of Stabilization of National Water Supply - Prevention of Flood Disasters and Creation of a Pleasant Waterside Environment
3rd Water Vision (Amendment)	1996-2011	1996	Development and Management of Environment-Friendly Water Resources	- Rationalization of Water Resource Management and Promotion Research on Water Resources.
4th Water Vision	2001-2020	2001	Sound Water management and Establishment of a Water-Friendly Environment	- Sound and Stable Water Use - Construction of Flood-Safe Infrastructure - Creating a River Environment in Harmony with Nature
4th Water Vision (1st Amendment)	2006-2020	2006	Sustainable Water Management for People and Nature	- Supply of Sufficient Clean Water to the People and Nature
4th Water Vision (2nd Amendment)	2011-2020	2011	A "Water-Rich" Nation to Build a Green Nation in 2020	- Supply of Sufficient Clean Water to People and Nature - Construction of a Climate Change-Safe Infrastructure - Creation of a Life and Water Environment - Achieving the Advancement of Water-Related Technology - Preemptive Responses to the Future of Water Resources
4th Water Vision (3rd Amendment)	2016-2020	2016	A Happy and Prosperous Nation without Worrying about Water	- Stable Supply of Clear Water - Construction of Flood-Safe Infrastructure - Creation of a Life and Water-Friendly Environment - Development of Water Resource Technology and Fostering Related Industry

Ministry of Land, Infrastructure and Transport (2020)

### Groundwater Development Potential

	Nationwide	Han River	Nakdong River	Geum River	Seomjin River	Yeongsan River	Jejudo
Area (km <sup>2</sup> )	109,413	41,948	31,784	17,924	8,299	7,606	1,852
Amount of Content (Million m <sup>3</sup> /Year)	20,019	6,185	5,907	3,298	1,657	1,296	1,676
Development Potential (Million m <sup>3</sup> /Year)	12,989	4,300	3,804	2,188	1,096	871	730

K-Water (2020)

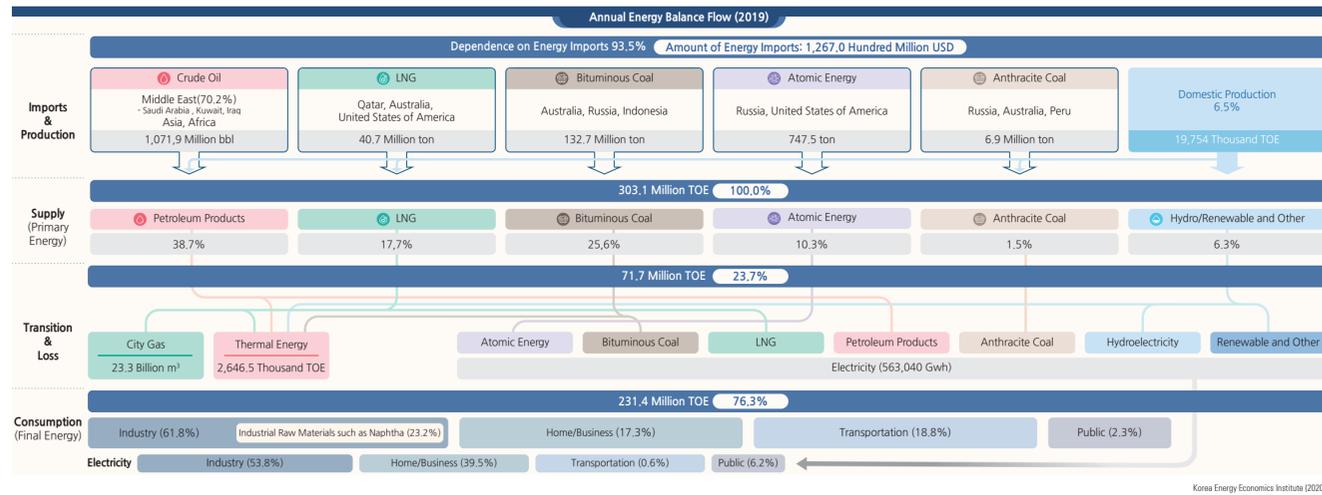
### Current Status of Domestic Dam and Reservoir Facilities(2020)

	Total Storage (Million m <sup>3</sup> )	Effective Storage Capacity (Million m <sup>3</sup> )	Water Supply Capacity (Million m <sup>3</sup> /Year)	Flood Control Capacity (Million m <sup>3</sup> )	Power Generation Capacity (Thousand kW)	Note
sum	2,356.3	13,541.5	16,388.6	5,594.9	6,372.7	
Multipurpose Dam	12,923.0	9,170.0	11,305.2	2,294.0	1,044.8	20 including Soyanggang Dam
Flood-only dam, Control Area	2,980.6	-	-	2,981.6	-	5 including the Peace Dam
Agricultural Reservoir	2,971.8	2,864.8	3,125.5	19.0	23.0	17,145 including Yedang Reservoir
Dam for Power Generation	1,842.4	961.1	1,050.0	276.8	5,303.1	21 including Hwacheon Dam
Dam for Live Water Use	638.5	545.6	907.9	23.5	1.8	127 including Unmun Dam

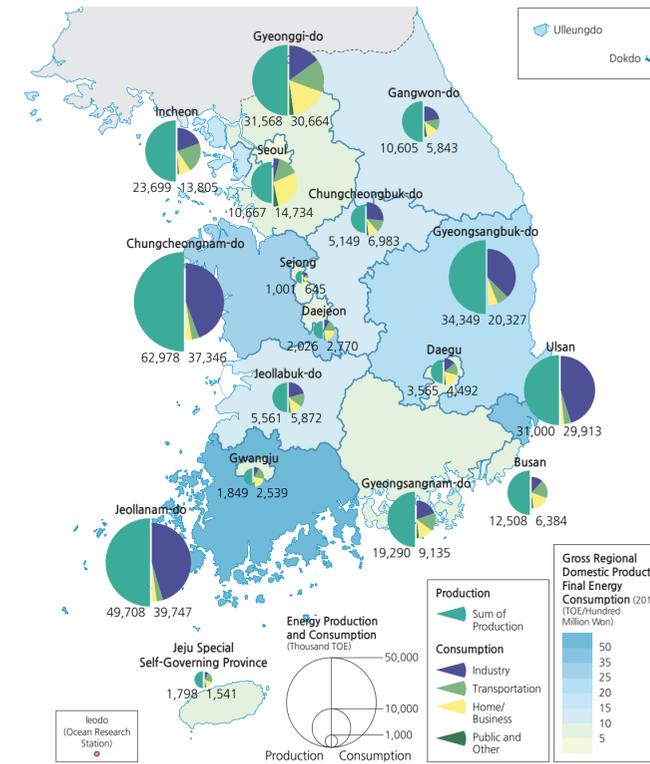
K-Water (2020)

Energy

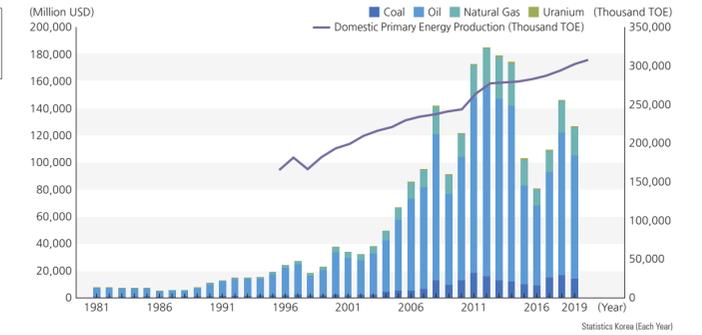
Energy Supply



Primary Energy Supply



Energy Imports and Primary Energy Production



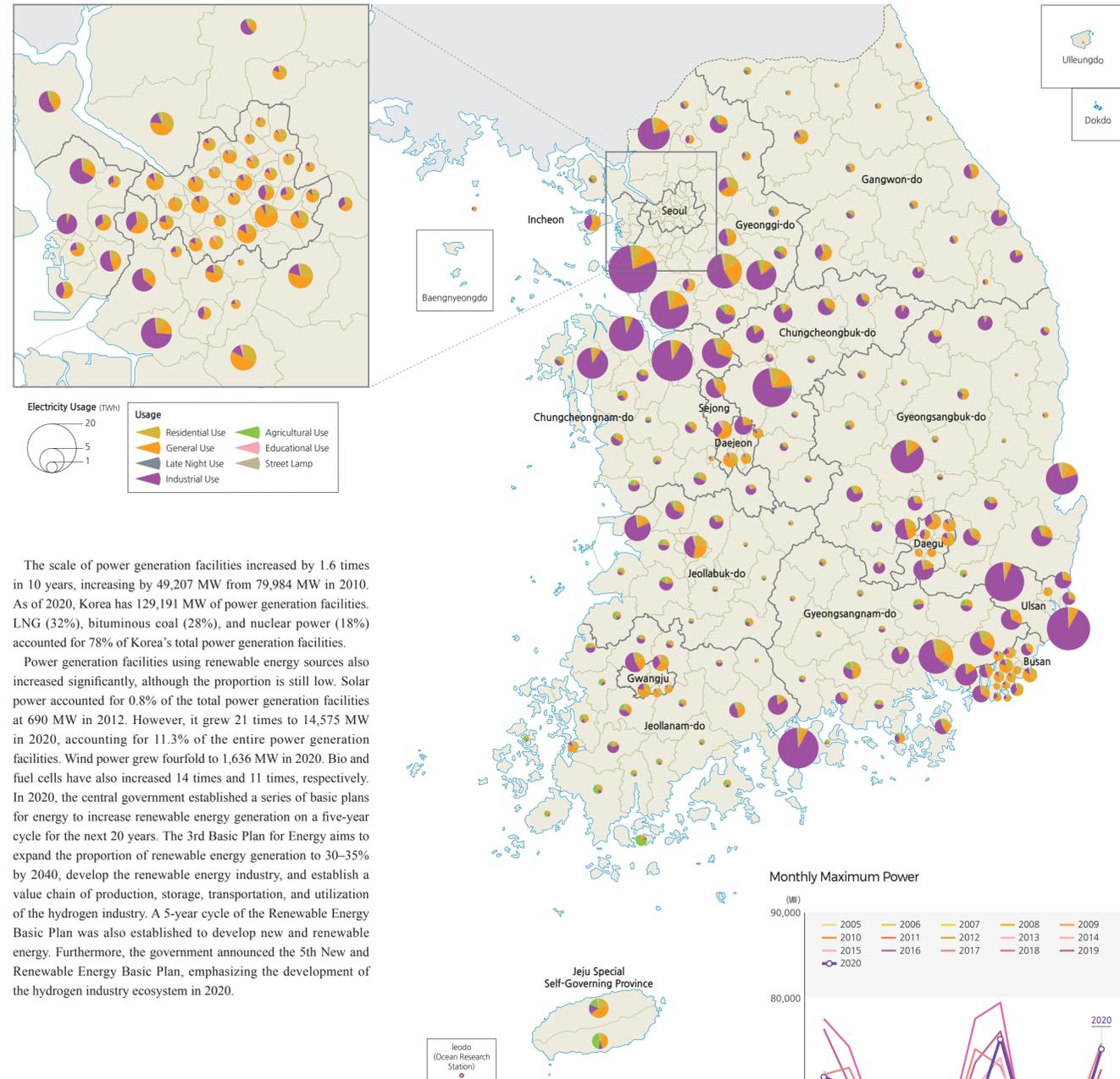
Korea's primary energy supply in 2019 was 303.1 million TOE (tonne of oil equivalent), a 1.67-fold increase from 181.7 million TOE in 1999, 20 years ago. Korea imports most of its energy. Therefore, energy imports have increased as much as the demand for energy has increased. After the financial crisis in 1998, energy imports plummeted from 27.3 billion USD the previous year to 18.3 billion USD. Energy import varies greatly according to economic fluctuations. For example, \$184.8 billion of energy was imported in 2012, compared to \$126.7 billion in 2019, which is the same as ten years ago. The share of energy in total domestic imports increased up to 36% in 2012. Then it fell to 27% in 2018 and 25% in 2019.

By energy source, oil accounted for 72% (91.2 billion USD) of energy imports in 2019, followed by natural gas (20.6 billion USD), coal (14.2 billion USD), and uranium (740 million USD). Oil alone accounts for 18% of Korea's total imports, and in 2012, this proportion rose to 27%. Dependence on energy imports also exceeded 80% in 1987, 90% in 1991, and recorded 96-97% in the early 2010s (nuclear fuel is included in imports). Although it slightly decreased to 93.7% and 93.5% in 2018 and 2019, it still showed a high dependence on energy imports. Even if nuclear power is included in domestic production, the dependence on energy imports exceeds 80% (84.4% in 2018 and 83.2% in 2019).



# Electricity

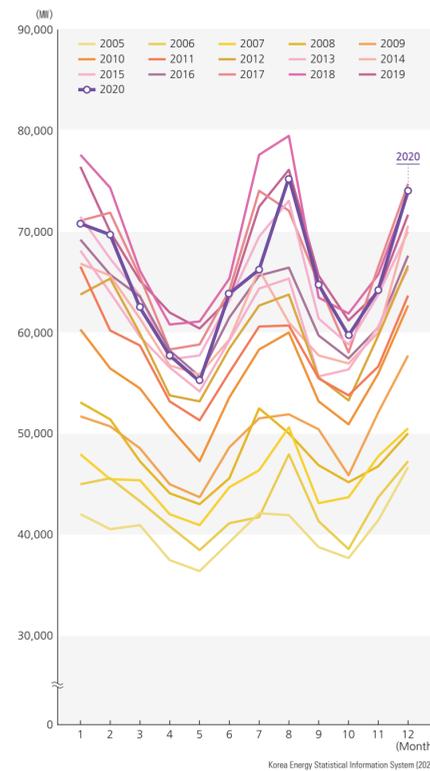
## Power Consumption by Usage



The scale of power generation facilities increased by 1.6 times in 10 years, increasing by 49,207 MW from 79,984 MW in 2010. As of 2020, Korea has 129,191 MW of power generation facilities. LNG (32%), bituminous coal (28%), and nuclear power (18%) accounted for 78% of Korea's total power generation facilities.

Power generation facilities using renewable energy sources also increased significantly, although the proportion is still low. Solar power accounted for 0.8% of the total power generation facilities at 690 MW in 2012. However, it grew 21 times to 14,575 MW in 2020, accounting for 11.3% of the entire power generation facilities. Wind power grew fourfold to 1,636 MW in 2020. Bio and fuel cells have also increased 14 times and 11 times, respectively. In 2020, the central government established a series of basic plans for energy to increase renewable energy generation on a five-year cycle for the next 20 years. The 3rd Basic Plan for Energy aims to expand the proportion of renewable energy generation to 30-35% by 2040, develop the renewable energy industry, and establish a value chain of production, storage, transportation, and utilization of the hydrogen industry. A 5-year cycle of the Renewable Energy Basic Plan was also established to develop new and renewable energy. Furthermore, the government announced the 5th New and Renewable Energy Basic Plan, emphasizing the development of the hydrogen industry ecosystem in 2020.

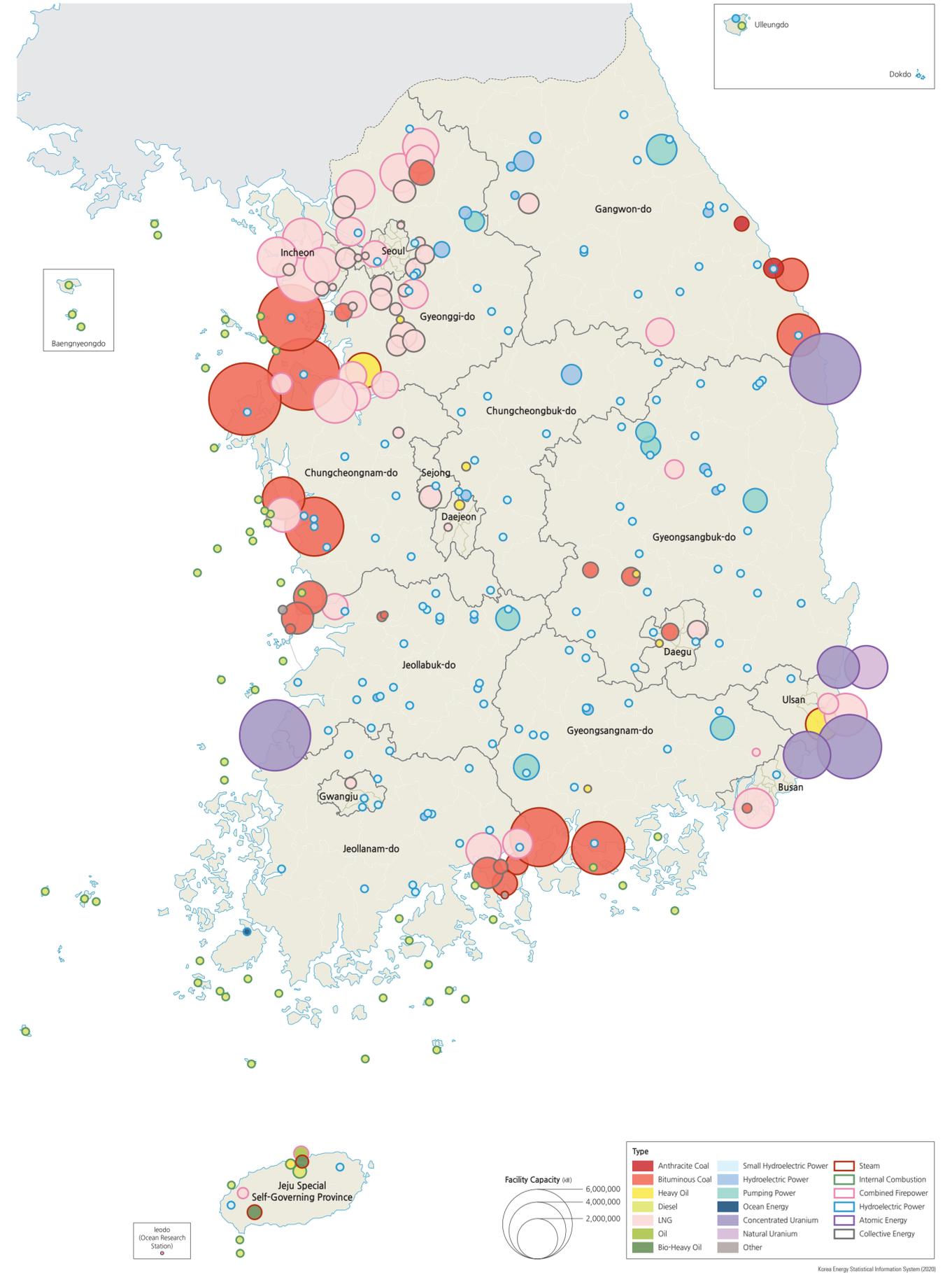
## Monthly Maximum Power



## Power Consumption by Industry



## Power Generation Facility



**Food**

Korea's agricultural and fishery product imports increased 4.1 times from \$9.86 billion in 2000 to \$40.09 billion in 2019, and its exports increased by 3.1 times from \$3.04 billion to \$9.53 billion. As can be seen from the huge trade deficit in agricultural and fishery products, Korea's food self-sufficiency rate decreased from 69.6% in 1980 to 45.8% in 2019. Since 2001, the government has set the "major food self-sufficiency target" to secure food security. As of 2020, most agricultural and fishery products are close to the target, but grain products, including wheat (7.1%), corn (8.5%), and soybeans (13.9%), were far short of the target. The self-sufficiency rate of animal products decreased sharply: beef from 53.6% in 1990 to 36.3% in 2018, pork, chicken, and seafood from over 100% in 1990 to 71.6%, 89.9%, and 51.2% in 2018, respectively.

In 2019, imports of agricultural products were 19.9 billion USD. Imports of grains increased, while imports of vegetables and fruits decreased. Imports of livestock products have increased, while imports of forest and aquatic products are on the decline. Imports of favorite products, such as coffee and wine, have increased.

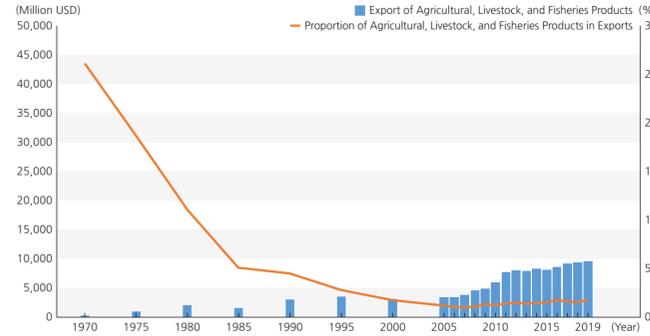
Agricultural and Fishery Products Exported over Hundred Million USD per Year (2017-2019)

	2017		2018		2019		Rate of Change (B/A)
	Subject	Price	Subject	Price (A)	Subject	Price (B)	
1	Cigarette	1,125.6	Cigarette	792.2	Cigarette	717.4	△9.4
2	Tuna	625.5	Tuna	617.7	Seaweed	579.2	10.2
3	Seaweed	513.2	Seaweed	525.6	Tuna	571.6	△7.5
4	Ramen	381.0	Beverage	417.7	Ramen	467.0	13.0
5	Beverage	346.8	Ramen	413.1	Beverage	422.0	1.0
6	Coffee Preparation	272.4	Coffee Preparation	265.7	Coffee Preparation	270.3	1.7
7	Sugar	167.3	Ginseng	187.9	Ginseng	210.3	11.9
8	Ginseng	158.4	Beer	154.4	Beer	146.2	△5.3
9	Biscuit	123.7	Sugar	140.2	Smoking Cigarette	133.5	44.3
10	Beer	112.4	Biscuit	125.8	Sugar	119.8	△14.5
11	(3rd Beer)	(97.4)	(Formulated Milk)	(99.2)	Biscuit	116.1	△7.6
12	(Calamari)	(78.5)	(Soju)	(97.6)	Kimchi	105.0	7.7
	<b>Sum</b>	<b>9,153.4</b>	<b>-</b>	<b>9,300.3</b>	<b>-</b>	<b>9,529.2</b>	<b>2.5</b>
	<b>Subtotal (Hundred Million USD)</b>	<b>3,826.3</b>	<b>-</b>	<b>3,640.2</b>	<b>-</b>	<b>3,858.4</b>	<b>6.0</b>

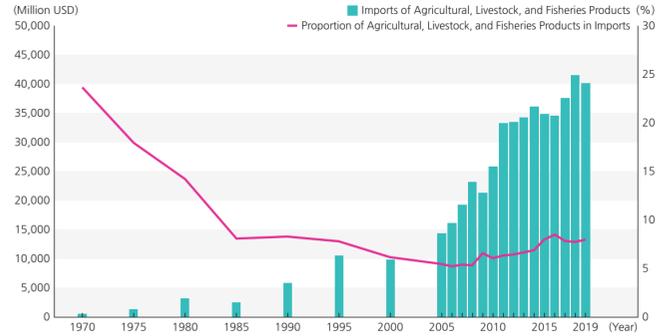
Ministry of Agriculture, Food and Rural Affairs (2019)

**Trends in Imports and Exports by Category**

Export of Agricultural, Livestock, and Fisheries Products



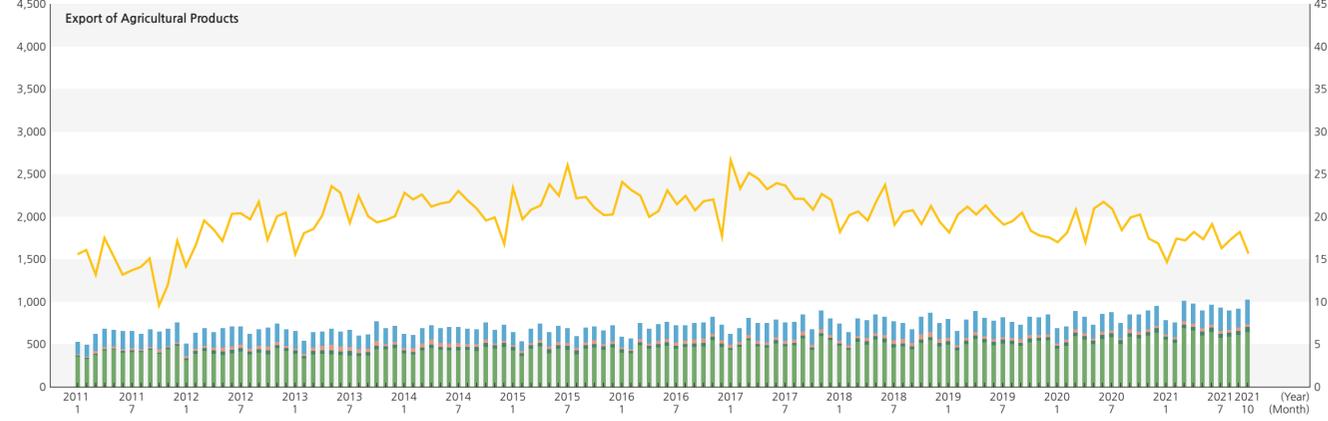
Imports of Agricultural, Livestock, and Fisheries Products



Ministry of Agriculture, Food and Rural Affairs (2020)

**Trends in Imports and Exports by Category**

Export of Agricultural Products

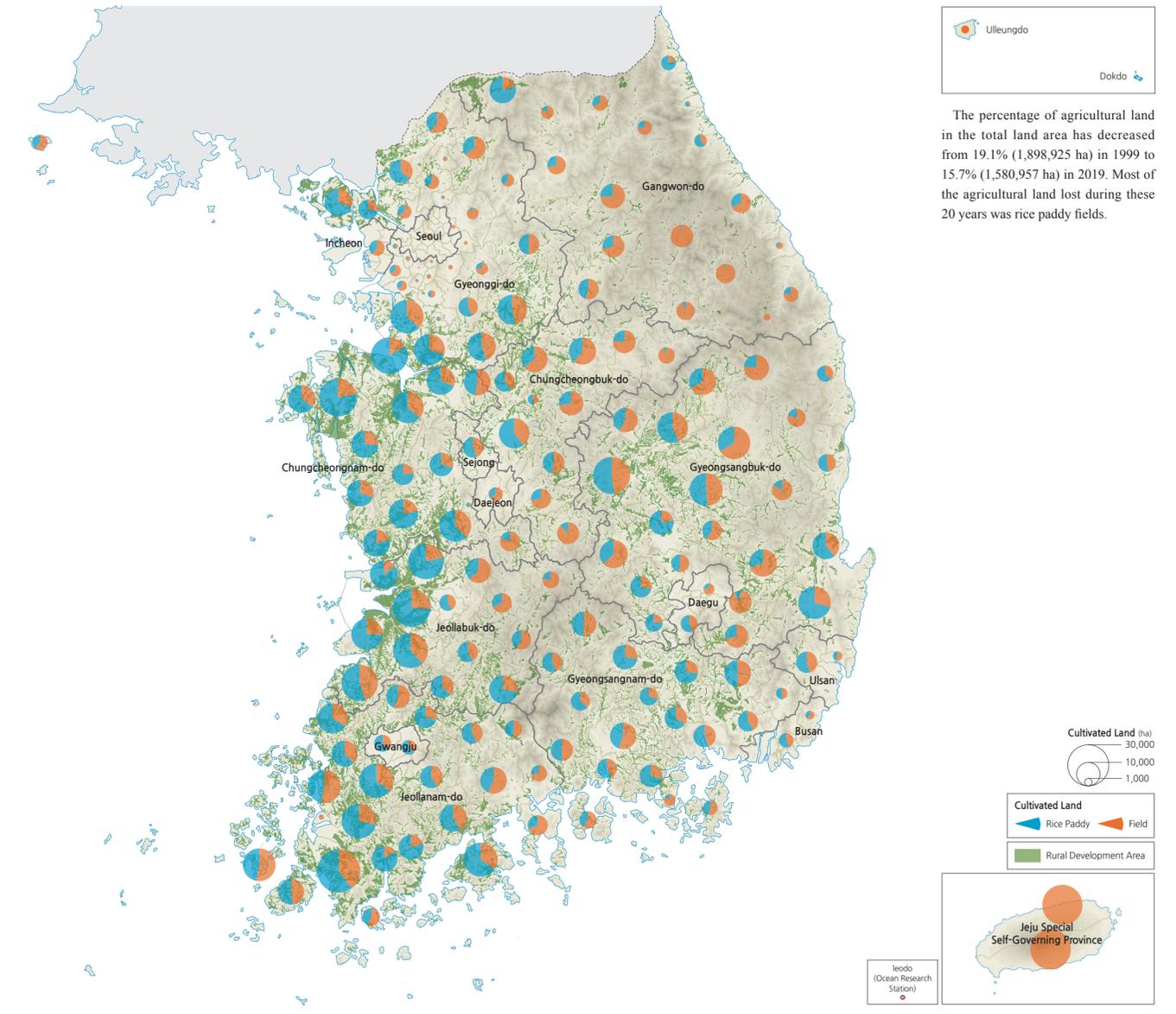


Import of Agricultural Products



Ministry of Agriculture, Food and Rural Affairs (2021)

**Distribution of Agricultural Land**



The percentage of agricultural land in the total land area has decreased from 19.1% (1,898,925 ha) in 1999 to 15.7% (1,580,957 ha) in 2019. Most of the agricultural land lost during these 20 years was rice paddy fields.

	Cultivated Area	Utilization Area		Rice	Barley	Mixed Grains	Beans	Potatoes	Vegetables	Special Crops	Fruits	Other	Facility Crops	Other Crops
		Total	%											
<b>2010</b>	1,715,301	1,825,049	109.3	892,074	51,081	24,644	83,129	44,113	284,371	85,891	162,472	51,994	91,648	145,280
<b>2014</b>	1,691,113	1,753,878	109.9	815,506	37,669	28,224	89,166	41,987	286,390	88,686	161,888	53,110	93,511	151,252
<b>2015</b>	1,679,023	1,682,139	106.7	799,344	44,292	30,388	69,227	39,591	269,408	92,757	162,944	51,578	90,468	122,610
<b>2016</b>	1,643,599	1,680,092	103.9	778,734	47,071	29,738	61,098	45,151	262,522	97,670	166,473	56,961	83,629	134,674
<b>2017</b>	1,620,796	1,641,116	101.3	754,713	38,379	25,800	58,044	42,658	272,179	96,394	166,957	56,957	80,599	129,035
<b>2018</b>	1,595,614	1,660,299	104.1	737,673	53,837	25,784	62,826	44,350	282,160	80,748	164,718	57,121	81,195	151,082
<b>2019</b>	1,580,957	1,643,465	104.0	729,814	47,456	26,572	71,679	48,771	265,898	80,304	160,571	56,103	80,740	156,298
<b>Seoul</b>	347	368	106.1	123	0	2	5	12	143	10	25	26	61	22
<b>Busan</b>	5,408	5,357	99.1	2,335	12	56	99	121	1,745	109	463	196	821	220
<b>Daegu</b>	7,472	8,426	112.8	2,752	267	27	124	151	3,250	315	1,059	388	1,118	93
<b>Incheon</b>	18,244	16,031	87.9	10,233	38	116	282	940	1,917	561	695	693	471	556
<b>Gwangju</b>	9,252	9,664	104.5	5,026	723	35	186	116	1,333	359	705	320	1,009	861
<b>Daejeon</b>	3,742	3,316	88.6	1,074	0	36	81	114	409	281	690	462	233	167
<b>Ulsan</b>	9,977	9,280	93.0	3,897	14	87	196	227	1,411	332	1,187	431	268	1,498
<b>Sejong</b>	7,588	7,297	96.2	3,943	0	46	244	112	713	446	771	493	347	528
<b>Gyeonggi-do</b>	160,181	150,688	94.1	76,642	76	1,626	6,335	5,838	25,985	8,676	7,991	6,510	12,939	11,009
<b>Gangwon-do</b>	100,756	100,298	99.5	28,640	166	6,239	5,925	6,476	28,138	8,437	3,640	3,420	4,095	9,216
<b>Chungcheongbuk-do</b>	101,900	102,022	100.1	33,247	109	3,581	7,373	3,069	15,509	7,995	14,468	4,641	5,531	12,030
<b>Chungcheongnam-do</b>	210,428	207,410	98.6	132,174	321	669	7,266	5,964	24,999	9,772	6,999	5,031	11,441	14,215
<b>Jeollabuk-do</b>	195,191	222,403	113.9	112,146	14,802	1,477	12,438	6,153	20,998	9,153	10,259	9,994	7,693	24,985
<b>Jeollanam-do</b>	288,249	336,513	116.7	154,091	21,940	4,231	12,178	8,777	47,110	12,329	17,710	8,078	7,085	50,070
<b>Gyeongsangbuk-do</b>	260,237	245,962	94.5	97,465	1,201	1,777	10,762	5,155	38,676	13,442	54,768	8,629	9,106	14,087
<b>Gyeongsangnam-do</b>	142,946	156,864	109.7	65,979	5,225	1,338	4,149	3,786	34,716	7,224	17,109	5,679	12,970	11,659
<b>Jeju</b>	59,039	61,556	104.3	45	2,562	5,230	4,035	1,760	18,845	865	22,031	1,111	5,551	5,081

Ministry of Agriculture, Food and Rural Affairs (2020)

## Minerals

In 2020, Korea imported a total of 26.84 billion USD of mineral resources. Of which, coal, including bituminous coal and anthracite, accounted for 35.4% (9.5 billion USD). Other major mineral imports include iron ore (6.93 billion USD), copper ore (4.25 billion USD), lead and zinc ore (3.3 billion USD, 12.5%), molybdenum ore (420 million USD), silver ore (300 million USD), manganese ore (210 million USD), and nickel ore (200 million USD). These top 10 imported minerals account for 93.5% (25.09 billion USD) of the total mineral resource imports.

As of 2018, it is estimated that Korea reserves 18.8 billion tons of mineral resources (13.6 billion tons of unexploited minerals).

Among them, metallic minerals accounted for 1.25 billion tons (0.95 billion tons of unexploited). Iron ore (43.7 million tons) accounts for 34.8% of total metallic minerals, followed by rare earth minerals (26 million tons), lead and zinc ore (17.1 million tons), tungsten ore (15.3 million tons), silver ore (8 million tons), molybdenum ore (6.3 million tons), and gold ore (5.9 million tons). Most metallic minerals are distributed in Gyeonggi-do and Gangwon-do.

Korea reserves 17.3 billion tons (13.1 billion tons of unexploited minerals) of non-metallic minerals resources. Limestone (13.81 billion tons, 79.8%) and quartzite (2.93 billion tons, 17%) account

for 96.8% of the total non-metallic minerals. Limestone is concentrated in Gangwon-do and Chungcheongbuk-do. Silicate is distributed in Gangwon-do, Chungcheongbuk-do, Gyeonggi-do, and Jeollanam-do. Other non-metallic minerals such as feldspar, kaolin, and pyrophyllite are scattered in Chungcheongnam-do, Jeollanam-do, and Gyeongsangbuk-do.

Korea reserves 1.40 billion tons of energy minerals, including coal (1.33 billion tons) and uranium (0.73 billion tons). Most coal mines are in Gangwon-do. Coal mines are also located in Chungcheongnam-do (8.8%) and the Honam region (6.4%). The Korean government does not allow the mining of uranium.

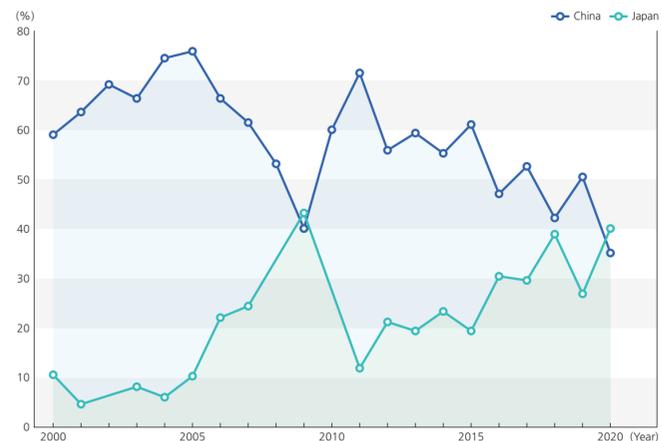
Mineral production by -Si/-Do (2020)

Type	Unit	Gyeonggi-do	Gangwon-do	Chungcheongbuk-do	Chungcheongnam-do	Jeollabuk-do	Jeollanam-do	Gyeongsangbuk-do	Gyeongsangnam-do	Other	Total
Gold	KG	0	18	20	0	2	145	2	0	0	187
Silver	KG	0	0	1,132	0	0	5,703	348	0	0	7,183
Copper	MT	0	0	0	0	0	0	0	0	0	0
Lead	MT	0	0	0	0	0	0	3,324	37	0	3,361
Zinc	MT	0	0	0	0	0	0	8,428	75	0	8,503
Iron	MT	0	575,231	0	0	0	0	0	0	0	575,231
Tungsten	MT	0	0	0	0	0	0	0	0	0	0
Molybdenum	MT	0	0	762	0	0	0	0	0	0	762
Yellow Iron Stone	KG	0	0	0	0	0	0	0	0	48	48
Titanium	MT	287,896	0	0	0	0	0	0	0	0	287,896
Other Metals	MT	0	0	0	3,300	0	0	0	0	0	3,300
Impression Graphite	MT	302	0	2,750	0	0	0	0	0	0	3,052
Talcum	MT	0	0	450	1,150	0	0	0	0	0	1,600
Lead Stone	MT	0	3,178	2,390	0	0	237,701	37,396	17,038	177,044	474,744
Feldspar	MT	30,600	27,178	7,713	162,959	1,052	31,638	148,660	1,428	4,300	415,525
Kaolinite	MT	0	553,060	29,537	8,000	32,903	94,433	229,997	174,917	34,220	1,157,066
Limestone	MT	0	59,750,829	22,135,034	892,550	65,732	852,063	213,369	0	0	83,909,576
Quartzite	MT	612,544	1,067,884	230,275	4,800	1,770	271,353	217,755	77,300	314,692	2,798,373
Silica	MT	0	115,608	14,583	202,631	0	45,840	1,055,780	0	0	1,434,442
Diatomite	MT	0	15	0	0	0	0	65,225	0	0	65,240
Serpentinite	MT	0	0	1,900	0	0	0	22,029	0	0	23,929
Mica	MT	0	6,833	5,192	4,165	0	0	1,795	3,000	0	20,985
Zeolite	MT	0	0	0	0	0	0	130,958	0	0	130,958
Crystal	KG	0	0	0	0	0	0	5,380	0	14	5,394
Alunite	MT	0	0	0	0	0	1,450	0	0	0	1,450
Kidney Stone	MT	0	1,052	135	0	0	0	448	0	0	1,635
Anthracite Coal	MT	0	927,598	0	0	0	91,700	0	0	0	1,019,298

Korea Institute of Geoscience and Mineral Resources (2020)

Rare earth minerals are distributed in Gangwon-do, Chungcheongnam-do, and Ulsan. However, Korea imports rare earth minerals because the economic feasibility of mining rare earth minerals is low. In 2020, Korea imported 3,215 tons of rare earth metals and compounds (74.21 million USD), mainly from Japan (40.2%) and China (35.2%). The dependency of rare earth imports on China has decreased since 2011 (71.6%), while the dependency on Japan is increasing.

Rare Earth Imports by Country



Mineral Resources Reserves and Provisional Mining (2018. 12.)

	Mining Amount	Provisional Mining Amount	Current Price Conversion Value
<b>Metallic Mine</b>	125.14	94.4	61,624.3
<b>Non-metallic Mine</b>	17,305.9	13,134.7	2,070,897.9
<b>Energy Mine</b>			
Coal Mine	1,326.1	307.0	550,700.4
Uranium Mine	73.6	54.0	13,427.7
<b>Total</b>	<b>18,830.9</b>	<b>13,590.1</b>	<b>2,696,650.4</b>

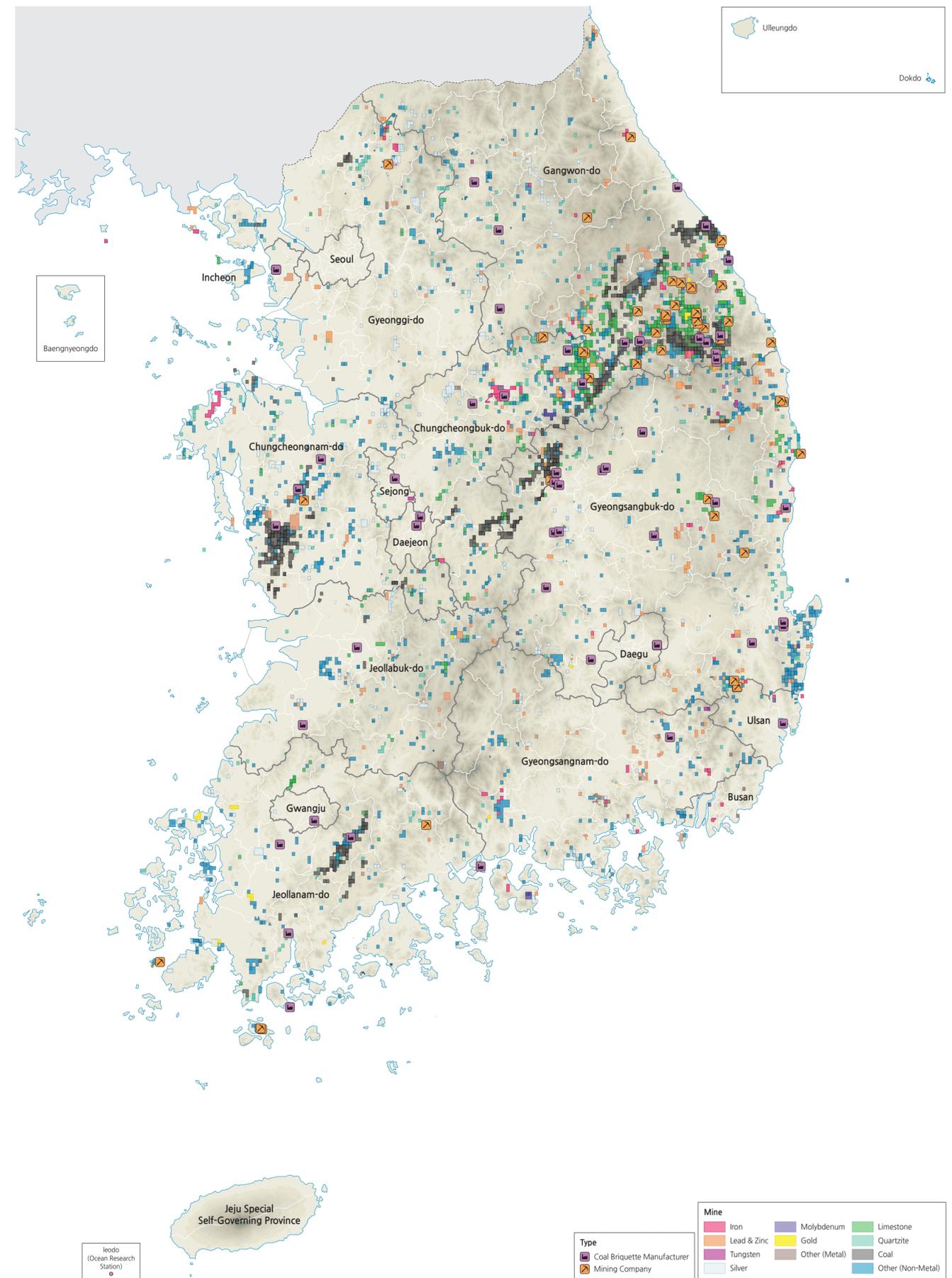
Ministry of Trade, Industry and Energy, Korea Mine Rehabilitation and Mineral Resources Corporation (2019)

Share of Rare Earth Imports by Country

Country	2019		2020	
	Price	Importance	Price	Importance
Japan	21,393	26.7	29,843	40.2
China	40,343	50.4	26,137	35.2
Taiwan	5,593	7.0	7,360	9.9
United States of America	2,123	2.7	1,151	1.6
Russia	53	0.1	497	0.7
Austria	278	0.3	411	0.6
Germany	332	0.4	399	0.5

Korea International Trade Association (2020)

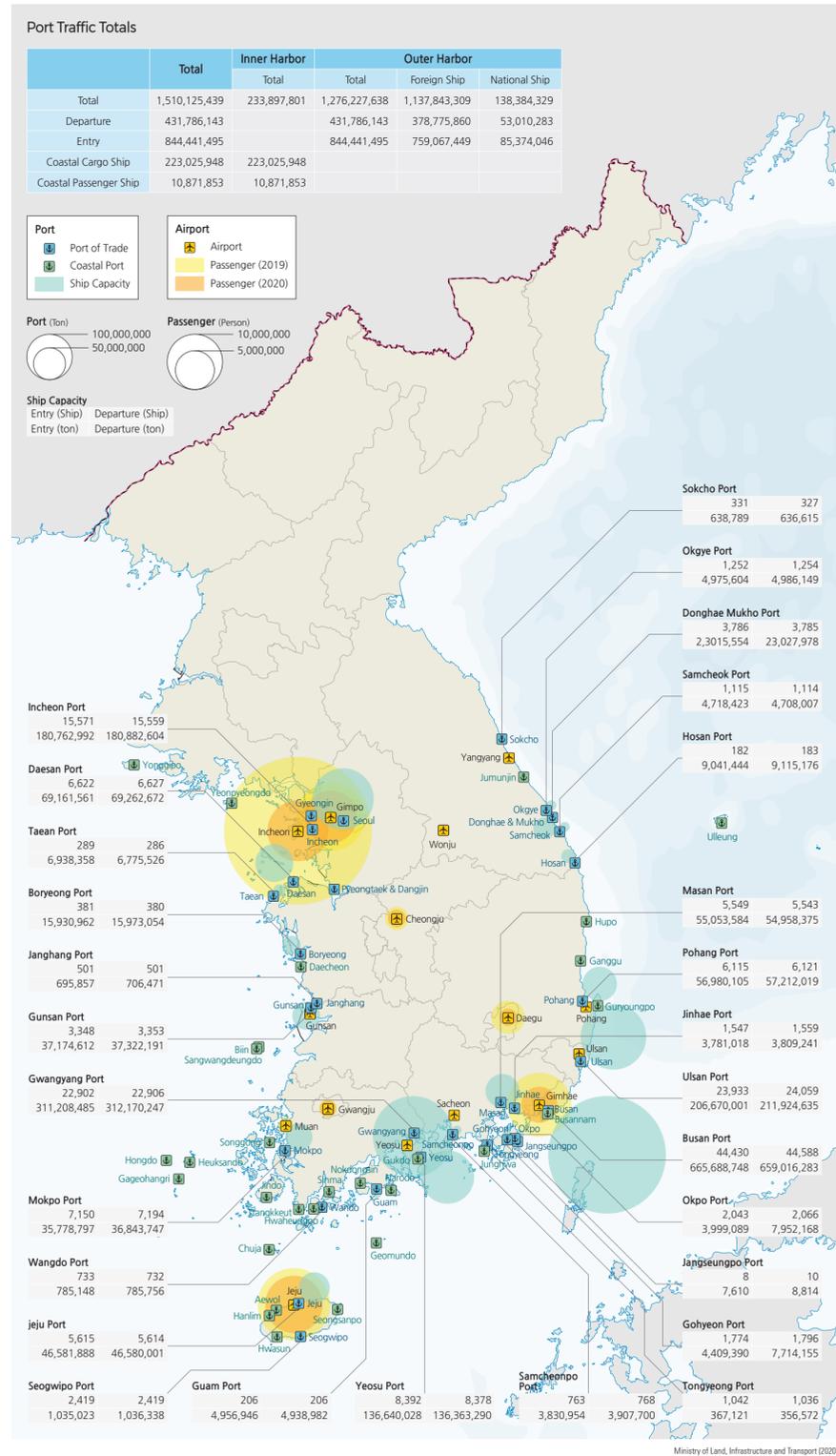
Domestic Mine Status



Ministry of Trade, Industry and Energy, Korea Mine Rehabilitation and Mineral Resources Corporation (2019)

# National Transportation Network

## Port and Airport



There are 15 airports in Korea, 7 of which operate domestic and international flights. Air cargo volume increased slightly from 2015 to 2019. Inbound cargo increased more than 20% from 1,104,444 tons in 2015 to 1,354,085 tons in 2019, and outbound cargo also increased from 1,179,394 tons in 2015 to 1,354,382 tons in 2019. However, due to the impact of COVID-19, inbound and outbound cargo volumes in 2020 fell to 905,502 tons and 980,775 tons, respectively, which decreased by 33% and 28%, compared to the previous year. The number of flights also decreased by 64.4% from 392,667 arrivals and 396,568 departures in 2019 to 139,714 arrivals and 141,535 departures in 2020, 36% of the previous year.

Korean National Airlines (KNA), a commercial airline founded in 1948, became the state-run Korean Air Corporation in 1962. It was privatized again in 1969. In 1988, Asiana Airlines, the second commercial airline, introduced Korea's air transportation competition. In 2019, two large airlines, Korean Air and Asiana Airlines, and six low-cost carriers that obtained international air transportation business licenses were operating. As of 2017, Korea handled the 8th largest air cargo volume in the world. In 2020, the total cargo volume, including transshipment volume, was 3,252,778 tons. Incheon Airport handled 93.3% (3,035,239 tons) of them. In 2020, the total number of air

Korea imports primary resources necessary for industrialization, such as energy, food, and minerals. In 2019, 99.8% of import and export cargo passed through the ports. Port facilities began to develop in the 1960s with the nation's export-oriented economic structure. During the Second Economic Development Plan period (1966-1971), the cargo handling capacity increased by 28.2%, from 14.65 million tons to 18.78 million tons. The sea freight volume also increased by 4.6 times, showing an average annual growth rate of 16.6%. In particular, Mukho Port increased from 2.45 million tons to 4.42 million tons, and Ulsan Port increased from .50 million tons to 1.31 million tons. In the 1970s, the government started building two container terminals at Busan and Incheon ports and built six industrial ports to support industrial complexes, including Yecheon Samil Port, Geoje Okpo Port, Goeje Mipo Port, Changwon Port, Onsan Port, and Bukpyeong Port (Donghae Port). Coal piers at Mokpo Port (1983) and Ulsan Port (1984) and LNG piers at Ulsan Onsan Port (1982) and Bukpyeong Port (1985) were built to facilitate the import of energy resources.

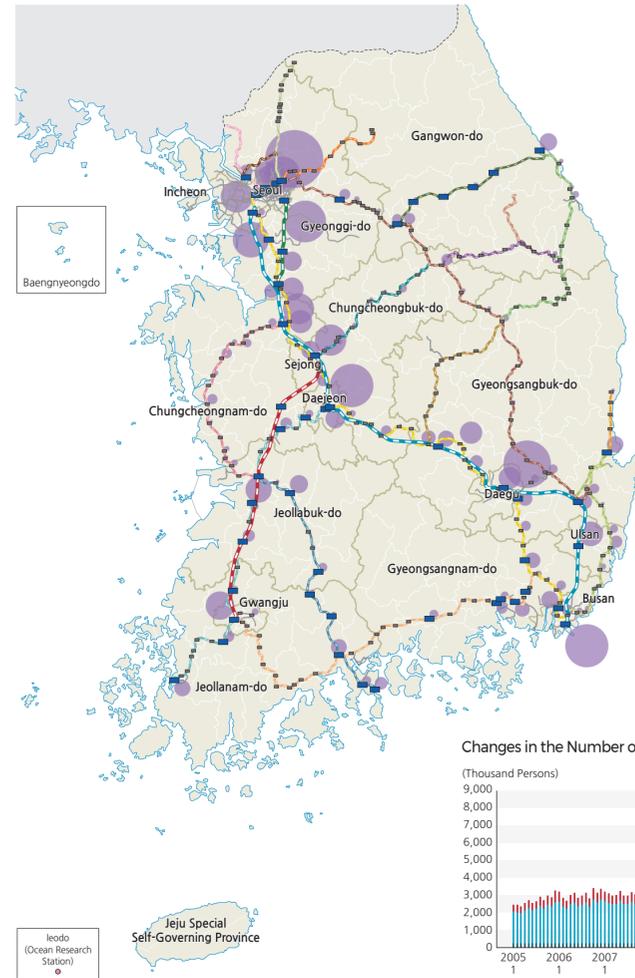
The largest port in Korea, Busan Port, started the third phase expansion project in 1985, right after the second phase expansion project was completed in 1983. In 1985, the cargo handling capacity grew eight times to 118.4 million tons in 20 years compared to 1966. In the 1990s, the Busan port facilities continued to expand to cope with the rapid increase in import and export cargo volume due to economic growth. In 1995, this port handled 3,800 million tons, 43% of total cargo volume, and 4.56 million TEU, 94% of its import and export container volume, making it the world's fifth-largest container port. As of 2020, Busan Port handles the 6th largest cargo volume annually in the world. Busan Port is also the world's second-largest transshipment port after Singapore Port, and 52.9% of the port's cargo volume is transshipment. In 2019, Busan Port ranked 3rd in the world in terms of container port connectivity index, after Shanghai and Singapore, with the continuous expansion of regular routes and the development of networks between ports and industrial complexes. Gwangyang Port is the 25th largest port in the world. It has operated automobile transshipment infrastructure since 2018 by expanding its function from the existing container pier to an automobile pier. In addition, it plans to operate a petrochemical pier and establish its hinterland industrial complex to support the petroleum industrial complex.

The Harbor Master Plan was first introduced in accordance with the revised Harbor Act in 1991. Currently, the 4th National Harbor Master Plan (2021-2030) is being implemented from 2020. The government reorganizes the port functions in accordance with the industrial structure reorganization, builds hinterland complexes to develop the maritime industry cluster, and implements policies to increase the added value of the port industry. In 2019, the government began to implement the 2nd Master Plan for Construction of New Harbors (2019-2040), which improves the port facilities of 12 existing ports and upgrades them into new ports.

Name	Seat	Flight	Passenger	Cargo (Ton)
<b>Total</b>	<b>57,043,334</b>	<b>339,597</b>	<b>39,671,379</b>	<b>3,252,778</b>
Incheon	20,629,640	149,480	12,001,379	3,035,239
Gimpo	11,558,171	58,528	8,965,606	70,523
Gimhae	5,791,035	31,307	4,197,109	32,527
Jeju	13,623,540	70,238	10,691,604	95,074
Daegu	1,379,252	7,403	987,263	6,549
Gwangju	1,202,538	6,784	865,642	3,571
Cheongju	1,288,134	7,020	1,006,491	5,117
Muan	150,398	813	100,189	953
Yeosu	524,826	2,923	328,157	1,056
Ulsan	414,306	2,465	280,589	984
Sacheon	25,227	160	13,800	55
Pohang	76,398	419	33,659	143
Gunsan	93,195	506	54,831	252
Wonju	35,577	202	18,841	99
Yangyang	251,097	1,349	126,219	632

passengers was 39,671,379, and the average seat occupancy was 69.5% of the 57,043,334 seat supply. The number of air passengers using Incheon International Airport was the largest at 12,001,379, followed by Jeju Airport at 10,691,604, and Gimpo Airport at 8,965,606. These top three airports accounted for 79.8% of air passenger traffic. In 2019, the traffic in cargo and passengers was 4,274,717 tons and 124,286,883, respectively. Due to the impact of COVID-19, the cargo and passenger traffic in 2020 plummeted by 76% and 32%, respectively, compared to the previous year.

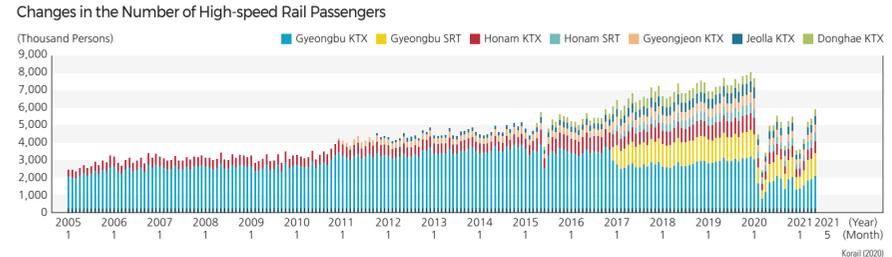
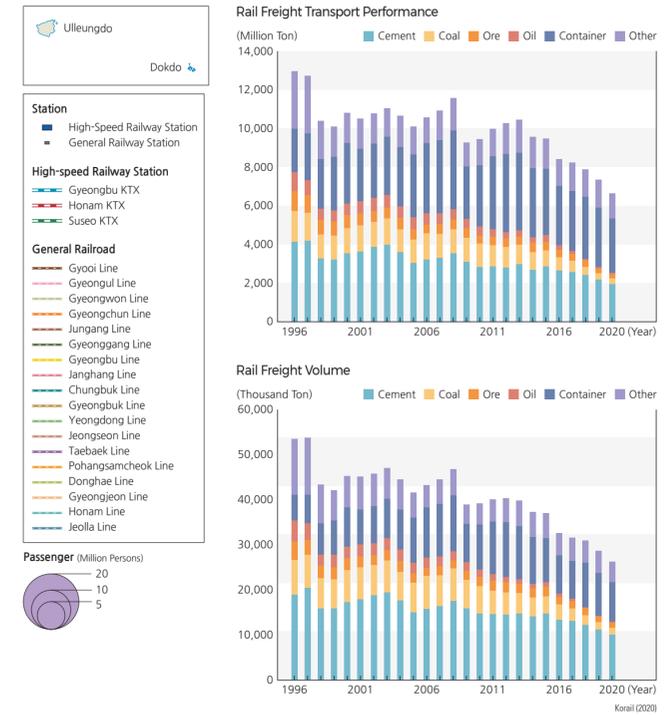
## Railroads



Since the opening of the Gyeongin Line between Incheon and Noryangjin on September 18, 1898, the development of Korea in the 20th century was also the history of railroad construction. During the Japanese colonial period, four railroads connecting Seoul and four cities were opened: Incheon (Gyeongin Line), Busan (Gyeongbu Line), Sinuiju (Gyeongui Line), and Wonju (Gyeongwon Line), and many other railroads connecting these four railroads and industrial facilities were opened. After the Japanese colonial period, the extension of existing railroad lines was mainly done in urban areas and in Gangwon-do, Chungcheongbuk-do, and Gyeongsangbuk-do, where coal mines were concentrated. Since the 1980s, the electrification of these railroad lines has been in progress. In the 1990s, relocation of existing railroad lines and construction of double-track were carried out, and railway lines in urban areas were electrified.

With the opening of high-speed rail in 2004, railroads in Korea underwent a significant change. Monthly passengers increased from 2 million at its opening to 3 million per month from 2006 to 2010. In the 2010s, the double-track railway between Samrangjin and Masan was completed, and the KTX Gyeongjeon Line was operated. In addition, more routes and stations were added as Suseo High-Speed Rail used the Honam and Gyeongbu Lines. As a result, monthly passengers surged to 8 million in 2019. In 2020, the total number of passengers was 102,378,106; 59% were high-speed train passengers, followed by Mugunghwa (34%) and Saemaeul (7%). By route, Gyeongbu High-Speed Line accounted for 24% of all passengers.

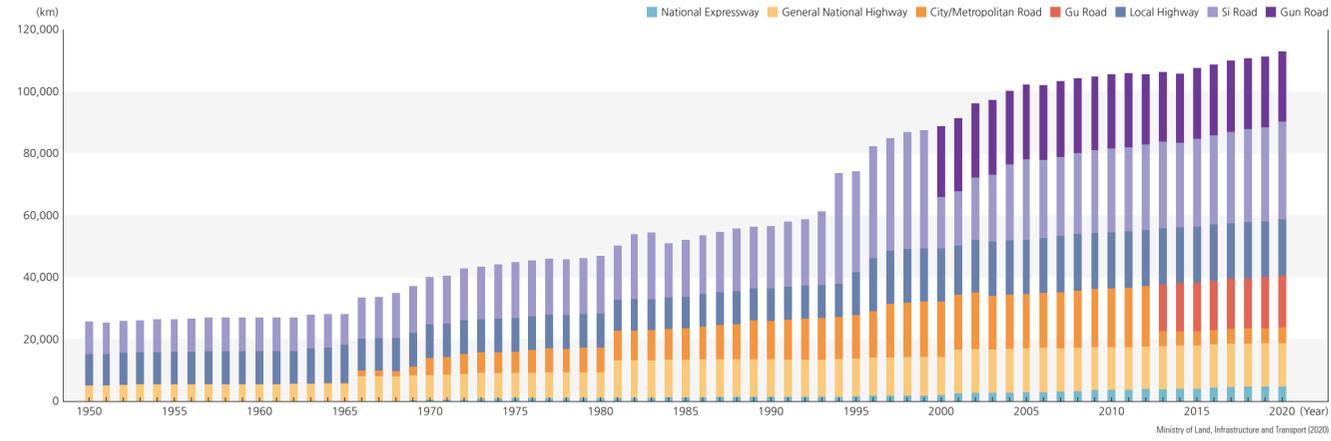
Railroad freight transport has continuously decreased since the 1990s. In 2020, freight volume was 26,276,962 tons, and the average travel distance per ton was 253 km. By type of freight, cement, containers, and steel account for 39.0%, 33.6%, and 8.8% of the total freight volume, respectively, and their ton travel distance accounts for 42.4%, 29.2%, and 11.8%, respectively. The average travel distance per ton is the longest at 454.9 km for construction cargo, 352.2 km for oil, 337.4 km for steel, and 319.0 km for containers.



## Performance of Cross-Regional Passenger Trains (2020)

	All Passenger Trains		High-Speed Train		Saemaeul Train		Mugunghwa Train		Commuter Train	
	Passenger	Service Distance (km)	Passenger	Service Distance (km)	Passenger	Service Distance (km)	Passenger	Service Distance (km)	Passenger	Service Distance (km)
<b>Total</b>	<b>102,378,106</b>	<b>17,566,446,898</b>	<b>60,712,057</b>	<b>13,732,515,822</b>	<b>6,801,953</b>	<b>798,206,532</b>	<b>34,752,040</b>	<b>3,034,243,519</b>	<b>112,056</b>	<b>1,481,025</b>
Gyeongbu KTX	24,292,589	5,121,332,129	24,292,589	5,121,332,129	-	-	-	-	-	-
Honam KTX	2,145,204	450,688,377	2,145,204	450,688,377	-	-	-	-	-	-
Suseo KTX	7,487,708	1,644,902,475	7,487,708	1,644,902,475	-	-	-	-	-	-
Gyeongbu Line	42,411,959	6,422,429,859	15,346,479	3,934,386,804	4,923,849	576,342,703	22,141,631	1,911,700,352	-	-
Honam Line	4,701,590	726,180,988	1,901,520	412,356,026	678,789	86,373,930	2,121,281	227,451,032	-	-
Jeolla Line	3,432,885	662,504,910	1,943,117	482,837,511	169,613	27,059,038	1,320,155	152,608,361	-	-
Janghang Line	2,296,411	197,299,700	-	-	653,959	58,344,601	1,642,452	138,955,100	-	-
Jungang Line	2,244,152	211,634,370	272,785	32,421,169	77,620	8,177,838	1,893,747	171,035,363	-	-
Gyeongjeon Line	2,029,772	405,019,012	1,122,663	326,922,333	118,072	17,483,502	737,787	59,920,793	51,250	692,384
Donghaenam Line	1,814,459	115,673,517	-	-	18,068	2,964,714	1,796,391	112,708,803	-	-
Gangneung Line	1,573,978	261,541,643	1,501,842	257,577,470	1,891	186,261	70,245	3,777,912	-	-
Gyeongwon Line	1,549,297	210,923,452	599,890	99,252,169	69,277	9,037,232	880,130	102,634,050	-	-
Gwangjusongbuk Line	1,223,655	340,155,152	1,223,655	340,155,152	-	-	-	-	-	-
Donghae Line	951,877	207,966,285	804,016	201,638,019	-	-	147,861	6,328,266	-	-
Chungbuk Line	802,582	54,955,704	-	-	1,519	192,647	801,063	54,763,057	-	-
Gyeongbu3 Line	797,324	150,107,260	796,266	149,793,457	-	-	1,058	313,803	-	-
Iksanbuk Line	579,726	111,066,804	579,726	111,066,804	-	-	-	-	-	-
Haengsin Line	538,599	135,593,723	538,599	135,593,723	-	-	-	-	-	-
Daegu Line	423,366	16,684,936	-	-	-	-	423,366	16,684,936	-	-
Yeongdong Line	406,154	54,956,346	135,554	31,287,588	34,718	2,035,675	235,882	21,633,083	-	-
Taebaek Line	241,168	28,937,518	-	-	1,686	227,969	239,482	28,709,549	-	-
Gwangju Line	177,374	9,890,062	-	-	-	-	177,374	9,890,062	-	-
Bujeon Line	164,511	18,726,230	-	-	45,169	8,763,525	58,536	9,174,065	60,806	788,641
Gyeongui Line	20,444	304,616	20,444	304,616	-	-	-	-	-	-
Osong Line	10,643	1,121,486	-	-	352	34,823	10,291	1,086,663	-	-
Gaya Line	2,724	170,222	-	-	-	-	2,724	170,222	-	-
Jeonseon Line	1,832	336,944	-	-	1,832	336,944	-	-	-	-
Other	149	5,060	-	-	-	-	149	5,060	-	-

Road Status by Year



According to the Road Act, roads are divided into seven grades: National expressway, General national highway, Special Metropolitan City/Metropolitan City road, Local highway, Si road, Gun road, and Gu road. As of 2020, the total road length is 112,977 km. As of 2020, the pavement rate was about 94.1%. There were 82 toll roads, and the total length of those toll roads was 5,043 km. Six roads are connected to North Korea. Si roads have the longest length, which accounted for 27.9% (31,575

km) of the total length of roads. 52 General national expressways accounted for 12.5% (14,098 km) of the total length of roads, tripled over the past half-century, compared to 5,212 km in 1950. Busan-Paju Line (No. 77) is 710 km long, the longest general national expressway. Forty national expressways accounted for 4.3% (4,848 km) of the total length of roads and had 499 interchanges and 113 junctions.

List of Expressways

Number	Name	Start	End	Length (km)	Opening Date
1	Gyeongbu Line	Geumjeong-gu, Busan	Secho-gu, Seoul	415.34	1968.12.21 Suwon - Seoul 1968.12.30 Osan - Suwon 1969.09.29 Cheonan - Osan 1969.12.10 Daejeon - Cheonan 1969.12.29 Busan - Daegu 1970.07.07 Daegu - Daejeon
10	Namhae Line	Yeongam-gun, Jeollanam-do	Buk-gu, Busan	273.2	1973.11.14 Suncheon - Sanin, Changwon - Busan 2001.11.15 Sanin - Changwon 2012.04.27 Yeongam - Suncheon
12	Gwangju Daegu Line	Buk-gu, Gwangju	Dalseong-gun, Daegu	212.88	1984.06.27 Goseo - Okpo 2007.11.08 Muan - Naju 2008.05.28 Naju - Gwangju
14	Hamyang Ulsan Line	Hamyang-gun, Gyeongsangnam-do	Uiju-gun, Ulsan	44.98	2020.12.11 Miryang - Uiju
15	Seohaean Line	Muan-gun, Jeollanam-do	Geumcheon-gu, Seoul	336.65	1994.07.06 Anjung - Ansan 1995.12.28 Ansan - Ilijk 1998.08.25 Mokpo - Muan 1998.10.30 Gunsan - Seochon 1998.11.25 Ilijk - Seoul 2000.11.10 Dangjin - Anjung 2001.11.20 Seochon - Dangjin 2001.12.21 Muan - Gunsan
16	Ulsan Line	Uiju-gun, Ulsan	Nam-gu, Ulsan	14.3	1969.12.29 Eonyang - Ulsan
17	Pyeongtaek Paju Line	Pyeongtaek-si, Gyeonggi-do	Paju-si, Gyeonggi-do	89.27	2009.10.29 Pyeongtaek - Hwaseong 2016.04.29 Suwon - Gwangmyeong 2020.11.07 Goyang - Paju
20	Saemangeum Pohang Line	Iksan-si, Jeollabuk-do	Pohang-si, Gyeongsangbuk-do	105.86	2001.11.29 Jangsu - Jangsu JC 2004.12.07 Daegu - Pohang 2007.12.13 Wanju - Jangsu
25	Honam Line	Suncheon-si, Jeollanam-do	Cheonan-si, Chungcheongnam-do	276.26	1970.12.30 Jeonju - Nonsan 1973.11.14 Suncheon - Jeonju 2002.12.23 Nonsan - Cheonan
27	Suncheon Wanju Line	Suncheon-si, Jeollanam-do	Wanju-gun, Jeollabuk-do	117.78	2010.12.28 W.Namwo - Jeonju 2011.01.31 Suncheon - W.Namwon 2011.04.29 E.Suncheon - Suncheon
29	Sejong Pocheon Line	Guri-si, Gyeonggi-do	Pocheon-si, Gyeonggi-do	50.6	2017.06.30 Guri - Pocheon, Sohol - Yangju
30	Dangjin Sangju Line	Dangjin-si, Chungcheongnam-do	Yeongdeok-gun, Gyeongsangbuk-do	278.9	2007.11.28 Cheongwon - Yangju 2009.05.28 Dangjin - Daejeon 2016.12.23 Sangju - Yeongdeok
32	Oksan Ochang Line	Asan-si, Chungcheongnam-do	Cheongju-si, Chungcheongbuk-do	12.1	2018.01.14 Oksan - Ochang
35	Jungbu Line	Tongyeong-si, Gyeongsangnam-do	Hanam-si, Gyeonggi-do	332.48	1987.12.03 Nami - Hanam 1996.12.20 Jinju - Seojinju 1998.10.22 Seojinju - Hamyang 1999.09.08 Sannae - Binyong 2000.12.22 Muju - Sannaehae 2001.11.29 Hamyang - Muju 2005.12.12 Tongyeong - Jinju
37	Jungbu2 Line	Icheon-si, Gyeonggi-do	Hanam-si, Gyeonggi-do	31.08	2001.11.29 Majang - Sangok
40	Pyeongtaek Jecheon Line	Pyeongtaek-si, Gyeonggi-do	Jecheon-si, Chungcheongbuk-do	126.91	2002.12.12 Pyeongtaek - Anseong 2007.08.31 W.Anseong - S.Anseong 2008.12.11 S.Anseong - Daeso 2013.08.12 Daeso - Chungju 2014.10.31 Chungju - E.Chungju 2015.06.30 E.Chungju - Jecheon
45	Jungbunaereuk Line	Masan-si, Gyeongsangnam-do	Yangpyeong-gun, Gyeonggi-do	302.03	1977.12.17 Masan - Hyeonju 2001.09.07 Gimcheon - N.Sangju 2002.12.20 Chungju - Yeoiu 2004.12.15 N.Sangju - Chungju 2007.11.29 Hyeonju - Gimcheon 2010.09.15 Yeoiu - N.Yeoiu 2012.12.28 N.Yeoiu - Yangpyeong
50	Yeongdong Line	Namdong-gu, Incheon	Gangneung-si, Gangwon-do	234.4	1971.12.01 Singal - Saemal 1975.10.14 Saemal - Gangneung 1994.07.06 Seochang - Ansan 2001.05.02 Ansan - Singal

52	Gwangju Wonju Line	Gwangju-si, Gyeonggi-do	Wonju-si, Gangwon-do	56.95	2016.11.11 Gyeonggi-do Gwangju - Wonju
55	Jungang Line	Sasang-gu, Busan	Chuncheon-si, Gangwon-do	370.76	1995.08.29 Geumho - W.Andong, Jecheon - Manjong, Hongcheon - Chuncheon 1996.06.28 Gangseonakdongganggyo - Daedong 1999.09.16 W.Andong - Punggi 2001.08.17 Manjong - Hongcheon 2001.12.19 Punggi - Jecheon 2006.01.25 Daedong - Dongdaegu
60	Seoul Yangyang Line	Gangdong-gu, Seoul	Hongcheon-gun, Gangwon-do	151.07	2009.07.15 Seoul - Jiyang 2009.10.30 Jiyang - E.Hongcheon 2017.06.30 E.Hongcheon - Yangyang
65	Donghae Line	Haeundae-gu, Busan	Sokcho-si, Gangwon-do	222.63	1975.10.14 Donghae - Hyeonnam 2008.12.29 Busan - Ulsan 2009.11.27 Hyeonnam - Haldadae 2012.12.21 Haldadae - Yangyang 2015.12.29 Ulsan - Pohang 2016.09.09 S.Samcheok - Donghae 2016.11.24 Yangyang - Sokcho
100	Sudogwon Je1sunhwan Line	Anyang-si, Gyeonggi-do	Namyangju-si, Gyeonggi-do	128.02	1991.11.29 Ilsan - Toegyewon 2006.06.30 Toegyewon - Ilsan
102	Namhae 1st Branch Line	Haman-gun, Gyeongsangnam-do	Changwon-si, Gyeongsangnam-do	17.88	1973.11.14, Sanin - Changwon
104	Namhae 2nd Branch Line	Gimhae-si, Gyeongsangnam-do	Sasang-gu, Busan	20.25	1981.09.04 Naengjeong - Busan
105	Namhae 3rd Branch Line	Changwon-si, Gyeongsangnam-do	Gimhae-si, Gyeongsangnam-do	15.26	2017.01.13 Changwon - Gimhae
110	Je2Gyeongin Line	Jung-gu, Incheon	Seongnam-si, Gyeonggi-do	69.98	1994.07.06 Incheon - Seochang, Seochang - Anyang 2009.10.19 Incheon Bridge 2017.09.27 Anyang - Seongnam
120	Gyeongin Line	Nam-gu, Incheon	Yangcheon-gu, Seoul	13.44	1968.12.21 Incheon - Seoul
130	Incheon International Airport Line	Jung-gu, Incheon	Goyang-si, Gyeonggi-do	36.55	2000.11.21 Incheon - Goyang
151	Seocheon Gongju Line	Seocheon-gun, Chungcheongnam-do	Gongju-si, Chungcheongnam-do	61.36	2009.05.28 Seocheon - Gongju
153	Pyeongtaek Siheung Line	Pyeongtaek-si, Gyeonggi-do	Siheung-si, Gyeonggi-do	40.3	2013.03.28 Pyeongtaek - Siheung
171	Yongin Seoul Line	Yongin-si, Gyeonggi-do	Gangnam-gu, Seoul	25.45	2009.07.01 Yongin - Seoul
204	Saemangeum Pohang Branch Line	Iksan-si, Jeollabuk-do	Wanju-gun, Jeollabuk-do	24.49	2007.12.13 Iksan - Wanju
251	Honam Branch Line	Nonsan-si, Chungcheongnam-do	Daedeok-gu, Daejeon	53.97	1970.12.30 Nonsan - Daejeon
253	Gochang Damyang Line	Gochang-gun, Jeollabuk-do	Damyang-gun, Jeollanam-do	42.5	2006.12.07 Jangseong - Damyang 2007.12.13 Gochang - Jangseong
300	Daejeon South Line	Yuseong-gu, Daejeon	Dong-gu, Incheon	13.28	1999.09.06 Seodaeyeon - Sannaehae
301	Sangju Yeongcheon Line	Sangju-si, Gyeongsangbuk-do	Yeongcheon-si, Gyeongsangbuk-do	94	2016.12.23 Nakdong - Sangju 2017.01.13 Nakdong - Yeongcheon
400	Sudogwon Je2sunhwan Branch Line	Hwaseong-si, Gyeonggi-do	Gimpo-si, Gyeonggi-do	38.14	2009.10.29 Bongdam - Dongtan 2017.03.23 Incheon - Gimpo
451	Jungbunaereuk Branch Line	Dalseong-gun, Daegu	Buk-gu, Daegu	30	1977.12.17 Hyeonju - Daegu
551	Jungang Branch Line	Gimhae-si, Gyeongsangnam-do	Yangsang-si, Gyeongsangnam-do	17.42	1996.05.01 S.Yangsang - Yangsan 1996.06.28 Daedong - S.Yangsang 2014.12.16 Gimhae - Daedong
600	Busanogwag Line	Gimhae-si, Gyeongsangnam-do	Gijang-gun, Busan	48.8	2017.12.28 Nopo - Gijang 2018.02.07 Jinyeong - Nopo
<b>Forty Lines</b>				<b>4,847.52</b>	

National Expressways



