

1. International Logistics Bases

A. Port facilities

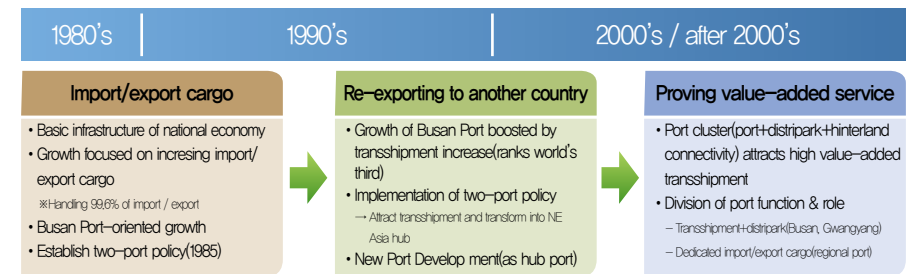
1) Functional changes at harbors

The geographical characteristics of Korea have always been conducive to continuous growth of its unique harbor culture. Harbors are playing the role of a comprehensive logistics base, creating high value-added logistics services, rather than simply playing the role of a terminal used for the entry and departure of vessels.

Harbors can be referred to as bases that guarantee the safe entry and mooring of vessels, and also as places bustling with a variety of activities linked to inland transport. According to the Harbor Act, the term “harbor” is defined as “a port equipped with facilities purposed

for the entry of vessels, boarding and disembarking passengers, and loading and unloading cargo transported by sea.” Korea’s harbors have bridged China and Japan from a geographical perspective and have been places imbued with commercial transactions with neighboring countries. Korea’s harbors have the potential to grow into world-class harbors connecting the Americas and Europe as a result of being located at a crossroads between “maritime silk road” and “overland silk road,” bridging the gap between the Pacific and the Indian Ocean

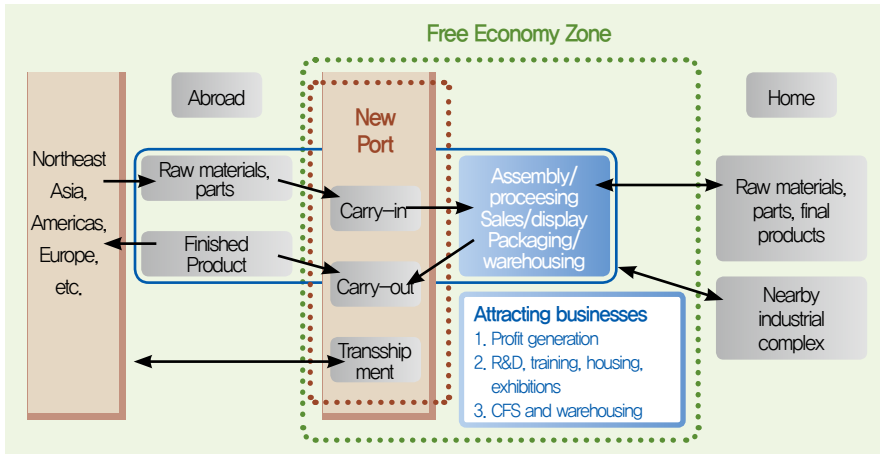
:: Functional changes of harbors ::



The main functions of harbors in the past were sort of terminal-oriented, such as helping vessels or cargos to come alongside the piers, warehousing, customs clearance, and transportation. However, the recent changes of vessels in size and shape, advancements in cargo handling technologies, and so on, have transformed harbors into a kind of space where the likes of production, distribution, and processing take place.

Based on cargo distribution functions, the functions of harbors have been combined with industrial spatial functions, such as manufacturing, financing, etc. In recent years, harbors have been equipped with urban-

:: Functions of harbors and neighboring complexes ::



friendly living spaces (e.g., the development of waterfronts as water-friendly spaces, etc.). A typical case is North Busan Harbor, which is currently being redeveloped.

2) Container terminal

① Container terminal

One of the key purposes of container transport is to shorten the amount of transport time by mechanically automating conventional, labor-intensive, cargo handling processes at each transport stage, and container terminals are where such cargo handling occurs.

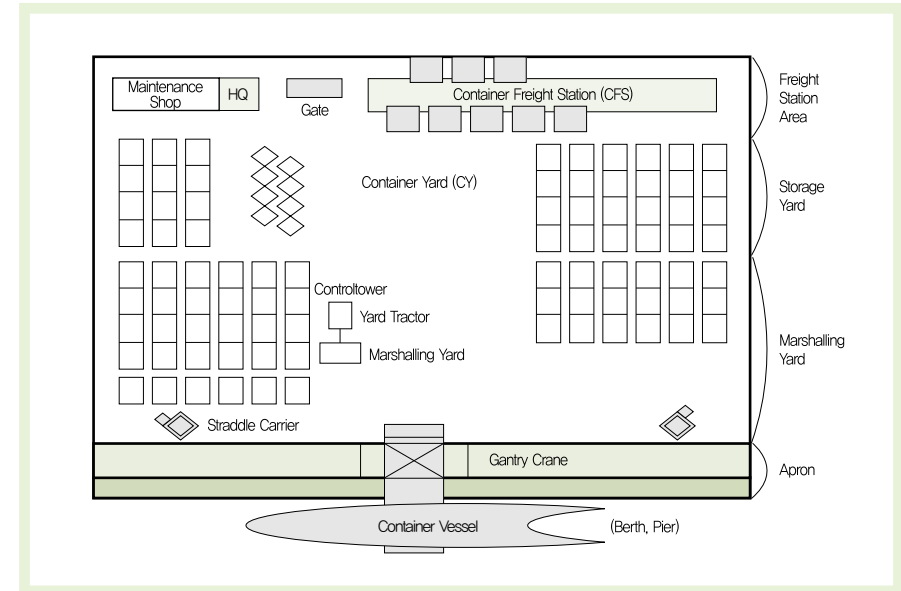
Since the completion of construction of dedicated container berths at Terminal 5 of Busan Harbor, in September 1978, Jaseongdae Terminal (Hutchison Korea Terminals), Sinseondae Terminal (PECT), Gamman Terminal, Gamcheon Terminal and Wooam Terminal have been under

operation, along with other container terminals at Incheon Harbor and Gangyang Harbor (phase 1 and 2). In addition, more berths are under construction inside the newly constructed New Busan Harbor to cater to increasing demand for cargo handling at Busan Harbor.

② Structures of container terminals

Container terminals are a place purposed for unloading containerized cargo from vessels, warehousing, loading cargo onto trains, warehousing of containers, collecting containers, repairing and cleaning containers, etc.

:: General structure of container terminals ::



■ Marshaling yard (MY)

In general, a marshaling yard refers to a place adjacent to an apron

and is intended to cater to a shipper's request for delivery of cargo in a timely fashion after storing the discharged container on a temporary basis or piling up the container in work order according to the stowage plan of the berthed vessel, prior to the entry of the vessel. However, the term "CY" has been used for indicating both CY and MY in recent years.

- Container yard (CY: container yard or storage yard)

A container yard refers to a place purposed for taking over, handing over, or storing containers. Broadly speaking, the term "CY" is being used for indicating a marshaling yard, apron, chassis/tractor warehouse and refrigerating warehouse. A CY inside a harbor is called "on-dock CY", and a CY, outside a harbor, is called "ODCY (off-dock CY)".

- Container freight station (CFS)

A CFS is installed inside a terminal or outside a harbor and is used for stuffing or un-stuffing (un-stuffing or devanning) containerized cargo. In addition, flat-rack or open-top container work, for out-of-gauge cargoes is also performed at CFSs.

- ③ Cargo handling equipment at container terminals

- Gantry (container) crane

Gantry cranes are specially designed for stevedoring containerized cargo and travel in parallel with the vessels berthed along the

rails installed on the aprons. Gantry cranes are capable of loading or unloading 30–40 containers per hour, using the hydraulically contracting spreader hook attached to them, while unloading a 40-ton cargo within 90 seconds at a time.

- Transtainer (transfer crane, RMG/RTG)

A transtainer is a type of equipment handling movable containers and is used for piling up containers one by one, loading containers onto a chassis or trailer, or unloading containers from a chassis or trailer. Transtainers travel back and forth on rails or using tire wheels, loading 3–5 layers of containers in a row, after placing containers in each layer (7–9 rows in height, 2–3 rows in width). Most transtainers are electric-powered and are able to handle approximately 30 containers per hour.

- Straddle carrier

This is a type of equipment purposed for transporting containers by holding them between both legs and is used for moving and loading containers from the marshaling yard to the apron or CY, or reloading containers on a chassis.

- Fork lift/top handler

Fork lifts refer to vehicles, specially designed for transporting cargos within the terminals, using forks attached to the vehicles, or a type of equipment transporting and loading cargoes using

built-in cargo handling devices or lifting masts,

3) Status of Korean harbors

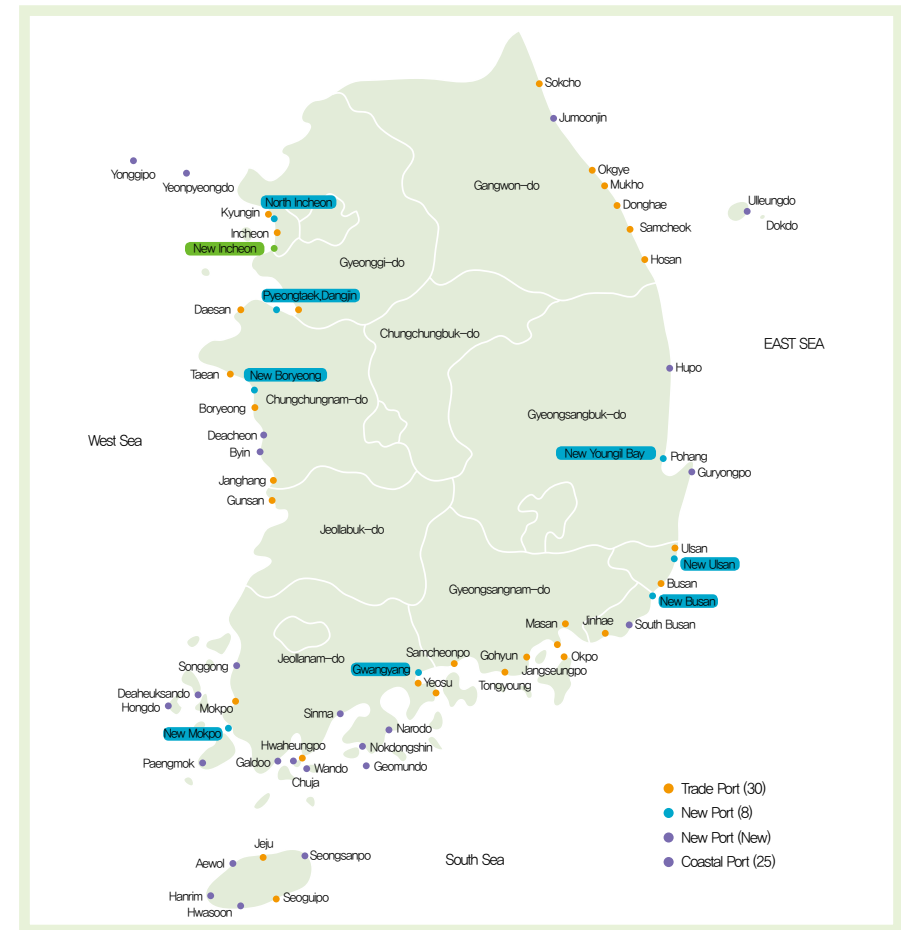
There are a total of 55 harbors in Korea, including 30 trade harbors and 25 coastal harbors. Trade harbors refer to harbors used for the entry and departure of cargo and passenger boats, and are constructed, managed, and operated by the Ministry of Land, Transport and Maritime Affairs. Coastal harbors are used for the entry and departure of coastal transportation vessels, coastal liners, and fishing boats, and city mayors and state governors are commissioned to manage and operate coastal harbors constructed by the Ministry of Land, Transport and Maritime Affairs.

Export-import, container cargoes are mainly handled at Busan, Gwangyang, Incheon, and Pyeongtaek-Dangjin Harbors, whereas cargos like petrol products, automobiles, and so on, are handled at Ulsan Harbor. These harbors consist of multiple berths and the operator

:: Latest information on Korean harbors ::

Harbor type	Governing body	Harbor name	
Trade harbor	Minister of Land, Transport and Maritime Affairs (construction and operation)	West coast (9)	Incheon, Gwangju, Pyeongtaek, Dangjin, Daesan, Taean, Boryeong, Janghang, Gunsan, Mokpo
		South coast (13)	Wando, Yeosu, Gwangyang, Jeju, Geogwipo, Samcheonpo, Tongyeong, Gohyun, Okpo, Jangseungpo, Masan, Jinhae, Busan
		East coast (8)	Ulsan, Pohang, Samcheok, Hosan, Donghaeng, Mukho, Okgye, Sokcho
Coastal harbor	Minister of Land, Transport and Maritime Affairs (construction) City mayors and state governors (operation)	West coast (8)	Yonggipo, Yeonpyeongdo, Daechon, Beem, Daehuksando, Hongdo, Paengmok, Songong
		South coast (13)	Simna, Nokdongsin, Narodo, Geomundo, Hanrim, Hwasun, Seongsampo, Aewol, Chuja, South Busan, Hwahongpo, Galdu, Joongwha
		East coast (4)	Guryongpo, Hupo, Uireung, Jumunjin

:: Locations of harbors in Korea ::



of each terminal is in charge of the operation of each berth, such as the shipping, loading, and unloading of actual import-export cargo.

The harbor transportation business is largely divided into the harbor transportation business and other businesses related to the harbor transportation business. The harbor transportation business consists of the stevedoring business, performing loading, unloading, receipt, and delivery of cargo, the

inspection business concerned with delivery and receipt of cargo shipped by sea, the appraisal business concerned with related verification tasks, investigations, and so on, and the metage business concerned with quantifying the volume and weight of cargo shipped by sea.

Meanwhile, harbor transportation-related businesses provide supportive functions, including harbor services like ship cleaning and mooring work, the goods supply business, supplying goods to ships, the ship fuel supply business, the container plant business, etc.

Korea can capitalize on its geographical conditions as the world's major trading routes are passing through its territory. In particular,

the Kobe Earthquake that hit Japan in 1997 fueled the growth of Busan Harbor. Busan Harbor was ranked fifth in term of container handling capacity (14,194,000 TEUs).

① Busan Harbor

Busan Harbor is located in Busan, the second largest city in Korea, and is the first and largest modern harbor launched in 1876 and a gateway of trading.

The first quay construction commenced from 1906, with the year 1945 seeing completion of the construction of Quay 1, 2, 3, 4 and the central quay. Four

:: Latest information on terminals of major harbors ::

Harbors	Pier	Cargo Handling Capacity(1,000 TEU)
Busan	Jasungdae	1500
	Sinsundae	1600
	Gamman	1560
	New Gamman	610
	Uiam	260
	Gamcheon	660
	New Busan Port	7480
Gwangyang	Gwangyang 1 st	1600
	Gwangyang 2-1 st	2280
	Gwangyang 2-2 nd	1140
Inchoen	ICT	800
	SICT	400
	EICT	300
Gunsan	GCT	240
Pyeongtaek-Dangjin	East	480
Ulsan	6 th pier	160
	Jungil-container	170
Masan	2 nd pier	26
	4 th pier	132

:: Containerized cargo handling capacities of major harbors across the globe :: (TEU in thousands, %)

Rank (2011)	Harbor	2009		2010		2011	
		TEU	Growth rate	TEU	Growth rate	TEU	Growth rate
1	Shanghai	25,002	Δ10.6	29,069	16.3	31,700	9.1
2	Singapore	25,866	Δ13.5	28,431	9.9	29,938	5.3
3	Hong Kong	20,983	Δ14.3	23,611	12.2	24,384	3.3
4	Shenzhen	18,250	Δ14.8	22,509	23.3	22,570	0.3
5	Busan	11,980	Δ10.9	14,194	18.5	16,185	14.0
6	Ningbo/ Zhoushan	10,503	Δ 6.4	13,144	25.1	14,686	11.7
7	Guangzhou	11,190	1.7	12,550	12.2	14,400	14.7
8	Qingdao	10,260	Δ 6.7	12,012	17.1	13,020	8.4
9	Dubai	11,124	Δ 5.9	11,600	4.3	11,500	Δ 0.9
10	Rotterdam	9,743	Δ 9.8	11,146	14.4	9,636	Δ13.5

※ Source : Containerization International, homepage of each harbor

dedicated terminals were constructed as a result of the phase 1 and 2 Busan Harbor development projects that had been implemented between 1974 and 1982 (including the Jaseondae container terminal, and international passenger terminals and so on), with the period between 1985 and 1991 seeing completion of the construction of the Sinseondae container terminal as a product of the Phase 3 Busan Harbor Development Project. In addition, the Gamman Container Terminal was built through the Phase 4 Development Project that had been implemented between 1992 and 1998. The construction of New Busan Harbor commenced in 1997 to cater to demand for increasing amounts of containerized cargo, with the current year of 2012 seeing the North Container Terminal up and running and the South Container Terminal and the West Container Terminal additionally in the works.

The number of vessels that can be berthed concurrently is 184, with the inner walls being



26,195m in length and the shallow draft quays being 9,604km in length,

90,000 tons of cargo can be stored simultaneously, and 1,162,000 tons of cargo can be stocked in the open air.

② Gwangyang Harbor

Gwangyang Harbor is located in Doi-dong, Gwangyang-shi, and was opened after being merged with the old Samil Harbor in 1986. Thanks to it being located in the proximity of China from a geographical perspective, Gwangyang Harbor has become the most ideal place as a base port for trans-shipment cargo heading for China. POSCO steelworks, the Yeosu National Industrial Complex and the Yulchon Regional Industrial Complex, have been established, comprising an industrial belt in the vicinity of Gwangyang Harbor.

With Myodo at its center, the north of the harbor is Gwangyang Harbor and the south of the harbor is Yeosu Harbor. Gwangyang Harbor consists of container terminals purposed for handling containers and steelworks quays processing iron ore, bituminous coal, and steel products.

The harbor is equipped with a total of 78 berths, with a cargo handling capacity of around 200 million tons per annum, accommodating an average of 118 vessels per day and 43,000 vessels per year, including container ships, oil tankers, bulk carriers, chemical tankers, LNG tankers, etc.

In terms of the quantities of general cargos shipped, Gwangyang Harbor



was ranked second, after Busan Harbor.

③ Incheon Harbor

Incheon Harbor is located in Jung-gu, Incheon, and is the largest trade port in the West Coast and the gateway to metropolitan regions.

Incheon Harbor is capable of berthing 30 large-sized vessels weighing upwards of 50000 tons, with a cargo handling capacity of 9,728,000 tons per annum.

Transport of ultra-large-sized vessels and special-purpose vessels is held back by the shallow waters off the West Coast, making it very difficult for vessels to pass through the lock gate. For these reasons, Incheon Harbor has been lagging behind in competition with Gwangyang Harbor and Busan Harbor, which are wider and have waters greater in depth.

④ Pyoungtaek-Dangjin Harbor

Pyoungtaek-Dangjin Harbor straddles Pyoungtaek City and Dangjin-gun, with its base facilities stretching to Hwaseong City. As of 2012, the harbor has 38 quays and is expected to be equipped with a total of 78 quays by 2020.



The harbor has been hardly affected by typhoons or tidal waves thanks to the natural breakwaters surrounding it, allowing the entry of vessels weighing over 50,000 tons, with the water depth averaging 14m. In addition, it is the closest harbor from the coastal industrial belts in China.

Pyeongtaek–Dangjin processed 95,630,000 tons of cargo in 2011 and was ranked fifth in Korea in terms of quantities of goods shipped. The increase in the quantities of goods shipped for the last five years, has averaged 13.7%, topping the chart comprising ten major domestic harbors. In addition, in terms of the number of container shipped at the harbor, the harbor was ranked fourth in Korea, with a TEU of 530,000 in 2011, topping an annual increase of 13.5% in the number of containers shipped over the past five years.

The main reasons behind the sharp rise in quantities of goods shipped at Pyeongtaek–Dangjin Harbor are as follows: First, the launch of Hyundai Steel's Dangjin factory in 2010 greatly increased the shipments of items related to steelworks (steel, iron ore, other minerals, bituminous coal, etc.); second, the amount of taxes levied on automobiles were reduced as a result of the Korea–EU and Korea–U.S. FTAs coming into force, giving a further boost to the import and export of automobiles. In addition, the opening of Yangok Quay in 2011 triggered the exponential growth in quantities of grain shipped.

⑤ Ulsan Harbor

Ulsan Harbor is located in the southeast of the Korean Peninsula and is divided into Main Ulsan Harbor, Onsan Harbor, Mipo Harbor, and New Ulsan Harbor. Ulsan Harbor is capable of berthing 107 vessels, equivalent to a weight of 3,638,000 tons, with a cargo handling capacity of 66,250,000 tons (740,000

TEUs) per annum.

The amounts of goods shipped in 2011 totaled 160,380,000 tons, and the number of containers processed was equivalent to 322,000 TEUs.



As a result of having industrial complexes for automobiles and petrochemical products, large quantities of raw materials for petrochemical products and automobile parts are being imported via the harbor, whereas large quantities of heavy chemical products, such as petrochemical products, automobiles, and so on, are being exported via the harbor. In particular, Mipo Harbor is marked by being able to directly export ships due to its large–scale shipyards that can be used for building ships on the spot.

Non–stop container transport services connecting 37 harbors in a total of 9 countries across Southeast Asia, China, Japan, Russia are also available. Currently, a total of 12 shipping companies, including Southeast Asia Marine Transport, Korea Marine Transport, Dongjin Shipping, Namsung Shipping, Pan Continental Shipping, are operating at Ulsan Harbor.

4) Total exports and imports by key harbor

In terms of quantities of export cargo processed by harbor in Korea, Busan Harbor topped the list by processing goods valued at USD159 billion, accounting for 18% of the total goods shipped in 2011, followed by Ulsan Harbor (17.2%),

Onsan Harbor (10.8%), Yeosu Harbor (10.4%), and Incheon Harbor (5.2%).

⋮ Containerized cargo volumes processed by year ⋮

(TEU in thousands, %)

Item		2008	2009	2010	2011	2012 (Jan. through Dec.)
Nationwide volumes	Total (Growth rate)	17,927(2.2)	16,341(Δ8.8)	19,369(18.5)	21,611(11.6)	18,686(4.4)
	Import-export (Growth rate)	11,605(3.1)	10,369(Δ10.7)	12,350(19.1)	13,413(8.6)	11,332(1.6)
	Transshipment (Growth rate)	6,186(0.5)	5,719(Δ7.5)	6,641(16.1)	7,719(16.2)	7,033(10.4)
	Coastal cargo transport	135	253	378	478	322
Busan Harbor	Total (Growth rate)	13,453(1.4)	11,980(Δ10.9)	14,194(18.5)	16,185(14.0)	14,202(5.9)
	Import-export (Growth rate)	7,638(2.6)	6,569(Δ14.0)	7,836(19.3)	8,708(11.1)	7,360(1.4)
	Trans-shipment (Growth rate)	5,808(Δ0.1)	5,372(Δ7.5)	6,276(16.8)	7,353(17.1)	6,758(11.6)
	Coastal cargo transport	7	39	82	124	84
Gwangyang Harbor	Total (Growth rate)	1,822(4.9)	1,830(0.4)	2,088(14.1)	2,085(Δ0.1)	1,776(1.4)
	Import-export (Growth rate)	1,500(5.7)	1,498(Δ0.2)	1,740(16.1)	1,726(Δ0.8)	1,513(4.6)
	Trans-shipment (Growth rate)	322(2.7)	306(Δ5.1)	314(2.8)	328(4.5)	253(Δ9.0)
	Coastal cargo transport	-	27	34	31	10
Incheon Harbor	Total (Growth rate)	1,703(2.4)	1,578(Δ7.4)	1,903(20.6)	1,998(5.0)	1,614(Δ2.2)
	Import-export (Growth rate)	1,668(2.5)	1,523(Δ8.7)	1,838(20.6)	1,931(5.1)	1,568(Δ1.6)
	Trans-shipment	24	19	21	18	13
	Coastal cargo transport	12	36	44	48	32
Pyeongtaek-Dangjin Harbor	Total	356	378	447	530	414
	Import-export	353	371	426	502	409
	Trans-shipment	3	5	9	9	2
	Coastal cargo transport	-	-	12	18	3
Ulsan Harbor	Total	401	319	335	327	310
	Import-export	373	302	327	322	307
	Trans-shipment	28	16	3	2	2
	Coastal cargo transport	-	-	5	2	1
Other harbors	Total	204	276	402	486	370
	Import-export	85	126	183	223	174
	Trans-shipment	2	1	18	9	4
	Coastal cargo transport	117	148	201	254	192

■ Other harbors: Gunsan Harbor, Pohang Harbor, Masan Harbor, Mokpo Harbor, etc

■ New Busan Harbor: 579 TEUs in 2007 ⇒ 1,579 TEUs in 2008 ⇒ 2,691 TEUs in 2009 ⇒ 5,485 TEUs in 2010 ⇒ 7,751 TEUs in 2011 ⇒ 4,504 TEUs in the first half of 2012

Source : Ministry of Land, Transport and Maritime Affairs

For Busan Harbor, key exports are automobile parts, synthetic resin, flat panel displays, color TVs, knitted goods, other plastic products, raw materials for precision chemical products, heavy construction equipment, tires, automobiles, etc.

Ulsan Harbor has a slew of automobile and petrochemical factories, shipyards, heavy machinery manufacturers, and so on, in the immediate proximity, with its key exports being automobiles, petrochemical products, ships, raw materials for chemical products, heavy construction equipment, etc.

When it comes to import cargo volumes processed by harbor in Korea, Incheon harbor topped the list by processing 63,410,000 tons of cargo valued at USD 55.7 billion in 2011, followed by Ulsan Harbor (61,470,000 tons), Gwangyang Harbor (60,380,000 tons), and Yeosu Harbor (49,810,000 tons).

For Incheon Harbor, key imports were mineral fuels, steel products, farm produce, textile goods, industrial electronics, nonferrous metals, electronic parts, forestry products, and high-precision chemical products. However, the key imports of Ulsan Harbor and Gwangyang Harbor were oil and iron ore, respectively.

5) Port hinterland

Port hinterlands are located in the vicinity of harbors and various

⋮ Area of port hinterland ⋮

(Unit : 1000 m²)

Harbor	2011	2015	2020
Total	15,759	20,306	26,671
New Busan	4,650	6,703	7,890
Gwangyang	3,878	3,878	5,465
Incheon	4,143	5,147	6,665
Pyeongtaek-Dangjin	1,405	2,628	4,479
Ulsan	456	456	456
Mokpo	473	473	473
Pohang	423	690	912
Masan	332	331	331

logistics support facilities including warehouses, and harbor waterfront facilities are collectively installed inside port

hinterlands. Port hinterlands are used as bases for storing export and import cargo, as well as bases for creating higher added value for cargo.

There are 17 port hinterlands under operation or under construction across Korea, including 3 locations near New Busan Harbor, 3 near Gwanyang Harbor, and 5 near Incheon Harbor.

B. Airport facilities

1) Air cargo terminals

The term, “air cargo terminal,” is defined as a “facility equipped with functions required for the collecting, stevedoring, classifying, packing, storing, and customs clearance of cargo.” This indicates a place where export cargoes are loaded onto (build-up) ULDs (unit load devices) so that the cargo can be transported by air. For import cargoes, the term “air cargo terminal” refers to a place where the cargoes are separated from ULDs through break-down work. For these reasons, air cargo terminals facilitate distribution flows as a space where related businesses, such as the transport business, warehousing, stevedoring, packing, distribution information business, and so on, are integrated with each other.

2) Classification of air cargo terminals

(A) Classification by governing body

The operation of air cargo terminals can largely be classified into four categories

by governing body: operation by airlines, operation by ground operators, direct operation by airport corporations, and operation by consortiums.

① Direct operation by airlines

Direct operation by an airline means air cargo operation services, regarding cargos of the airline and partner airlines, are provided by the airline by directly owning and running the terminal. One benefit of this type of operation is that airlines are able to flexibly deal with demand for each cargo transport item, putting themselves in control by improving timeliness and efficiency in operations, increasing elasticity in operation patterns, etc. However, this type of operation is liable to an increase in operation costs. For this reason, the operation of cargo terminals is sometimes commissioned to professional service contractors by airlines.

② Operation by ground operators

Operation by ground operators refers to providing cargo operation services to airlines that do not have cargo terminals via professional ground operation contractors that directly own or lease cargo terminals. This operation method is advantageous in terms of cost saving and operation efficiency, but is disadvantageous in terms of service quality because they provide standardized services, rather than providing services tailored to each airline.

③ Direct operation by airport corporations

One downside of direct operation by airport corporations is that they are

likely to fail in terms of appropriately catering to the needs of airlines or customers, in addition to quality concerns over cargo operation services, due to the sclerotic organizational systems and lack of expertise in ground operations.

④ Operation by consortiums

Operation by consortiums may raise risks in the process of decision making (such as reconciliation of the opinions of stakeholders) despite it being similar to the operation by ground operators.

(B) Classification by geographical condition

Classification by geographical condition can be performed based on the distances between air cargo terminals and airports: Airport-centered terminals, urban-centered terminals, and halfway-point terminals.

① Airport-centered air cargo terminals

Airport-centered air cargo terminals are of the most general type employed by most countries including Korea, and air cargo terminals of this type are located inside airports or in the proximity of airports. The reason for employing this type of air cargo terminal is that a distance of less than 30km between an air cargo terminal and shippers maximizes efficiency in cargo transport and accessibility, greatly facilitating the use of services provided by related agencies and carriers concerned with international air transport.

② Urban-centered air cargo terminals

Strictly speaking, urban-centered air cargo terminals are facilities focused on providing the functions of bonded warehouses rather than providing the functions of pure air cargo terminals, even though their geographical locations are intended for addressing issues that may arise in the process of transport, warehousing, and customs clearance for individual shippers when the distance between the airport and the place of origin exceeds 50km.

③ Half-way point terminals

Halfway-point air cargo terminals are intended for addressing issues resulting from the geographical conditions of airports, i.e.; when the distance between an airport and a terminal is more than 70km, and land utilization. Halfway-point terminals are located at the halfway points between airports and downtowns (origins of cargos), serving all the functions of air cargo terminals located inside the airports.

3) Hub airports

Hub airports refer to airports equipped with the “hub and spoke” systems. The hub and spoke system is gaining global traction as a result of improving efficiency in airline operations, service quality for shippers, and transporting cargo and passengers in a more effective and convenient fashion.

From a shipper’s point of view, the hub and spoke system results in an increase in the amount of time needed for transporting cargo to the final destination

as the system reduces the number of non-stop flights to the destination. However, from an airport or airline's standpoint, the hub and spoke system is in their best interest as the system boosts the volume of cargo and the number of aviation services, despite the increase in the number of cities served by direct flights. Ultimately, any hub airports, equipped with the hub and spoke system are in the best interest of both airlines and shippers. In particular, hub airports provide structural benefits to local economies, spurring job creation related to high-tech industries in the regions.

As the implementation of a hub and spoke system requires an airport in the home country to be a "hub" and other routes connecting its vicinity and other cities to be "spokes," the success of a hub airport is only possible by expanding into overseas cargo markets. This is the reason behind the fierce competition coming down the pike among airports and countries.

Hub airports can be classified by passenger centralization or cargo centralization. However, given the huge inter-dependency between the two centralization types, it can be said that they are complimentary. As centralization of distribution is aimed at growing demand for export-import cargo heading for their final destinations and transshipments, it is vital to grow the national economy in size, attract global companies, etc.

4) Airport distribution complex

Airport distribution complexes are facilities for storing and distributing goods imported and exported by air, as well as creating higher added value for air cargo. Businesses related to warehousing and transport facilities are located in

airport distribution complexes.

The Incheon International Airport Distribution Complex has a land area of 992,000m² (after completion of the phase 1 construction), and logistics, production, support, and public facilities are installed at the site, and an additional distribution complex with a land area of 921,720m², is set to be established after completion of the ongoing phase 2 construction.

For Gimpo Airport, a number of distribution complexes with a total land area of 100,000m², are under operation, including Korean Air's cargo terminal, which has a land area of 19,000m².

5) Incheon International Airport

Incheon International Airport was launched with a grand vision of it being "the future center of air transport in Northeast Asia." Since its opening in 2001, the airport has been growing at a rapid pace on the back of stable and efficient management.

Incheon International Airport has established itself as a hub airport in Northeast Asia and has been credited with achieving an unprecedented success, such as being recognized as a world-class airport by major international airport assessment organizations in terms of airport operation, service, distribution, and more.

Incheon International Airport was designed and built to handle 410,000 flights, 44,000,000 passengers, and 4,500,000 tons of cargo per annum.

In effect, up to 215,000 flights are handled by Incheon International Airport, with the amounts of cargo also reaching 2680,000 tons. In addition, 170 cities

across 60 countries around the globe are being served by flights of nearly 70 airlines from the airport.

Some airports in other countries are expanding their airport infrastructure to take the lead in the air cargo market based on hub airport strategies, which have huge economic ripple effects. Incheon International Airport is implementing the Phase 3 Expansion Project to keep the competition at bay in the aviation market in Northeast Asia.

The Phase 3 Expansion Project is a large-scale expansion project backed by a budget of approximately 4 trillion won and includes the construction of Passenger Terminal 2 and the expansion of cargo terminals and aircraft berthing, in addition to securing transportation facilities that can provide accessibility to the airport, implementing the second-stage construction of logistics complexes in the vicinity.

The completion of the phase 3 expansion project is likely to boost the airport's



ability to handle passengers and cargo from 44,000,000 to 62,000,000 and 4,500,000 tons to 5,800,000 tons, respectively.

Incheon International Airport is equipped with world-class airport facilities, thanks to the successful completion of the phase-two construction project,



:: Latest information on facilities at Incheon International Airport ::

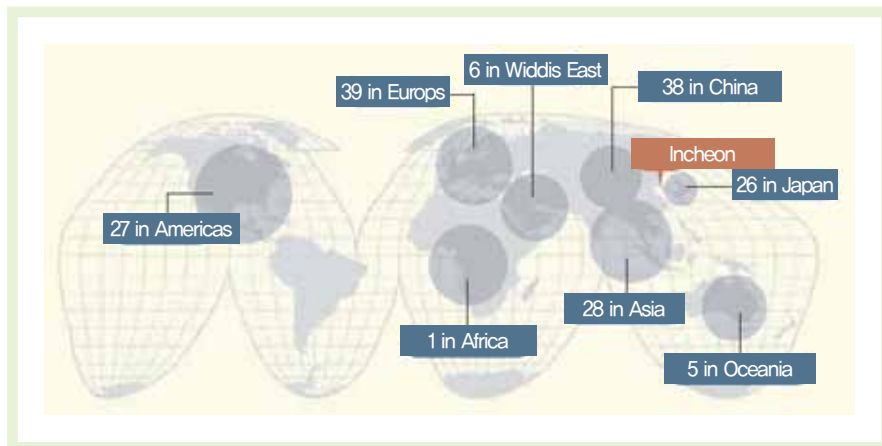
Total land area	56,060,000m ²	The same as a combined size of 7,800 football pitches
Number of runways	3	Simultaneous takeoff of ultra-large-sized airplanes, such as A380 or the like, is possible (one 4,000m runway; two 3,750m runways)
Airplane parking space	2,440,000m ² for passenger planes 740,000m ² for cargo planes	A maximum of 144 can be parked simultaneously (108 passenger planes; 36 cargo planes)
Passenger terminal	500,000m ²	Number of gates (44 passenger terminal gates; 33 ramps can be linked to passenger planes simultaneously) The same as a combined size of 60 football pitches
Boarding building #1	170,000m ²	Three A380 aircrafts can simultaneously be linked to the boarding building
Traffic center	250,000m ²	Houses the Incheon Airport Railway and Maglev train stations (4,758 parking spaces; 6,427 long-term parking spaces)
Aviation safety facilities	Control tower/radars/ aviation lights	Asia's first CAT-LIB operation 90,000-hour non-stop operation Opened in March 2006
Free trade zone	Cargo terminal: 230,000 m ² Airport logistics complex: 990,000m ²	Attracted global logistics companies, such as DHL, AMB, Schenker, KWE, etc. (The airport logistics complex is planned to be expanded by an area of 92,000m ² at the second construction stage)

which had been implemented by 3,500,000 workers for six years, with a project budget of 3 trillion won.

:: Current capacity of Incheon International Airport ::



:: Cities served by flights from Incheon International Airport ::



2. Inland Logistics Bases

Korea has established and implemented comprehensive plans for developing distribution facilities on a five-year basis, in order to establish efficient distribution networks by preventing excessive investments and overlapped development of distribution facilities. According to the plans, distribution facilities are further divided into international distribution bases, metropolitan distribution bases and regional distribution bases by facility size, function, and more.

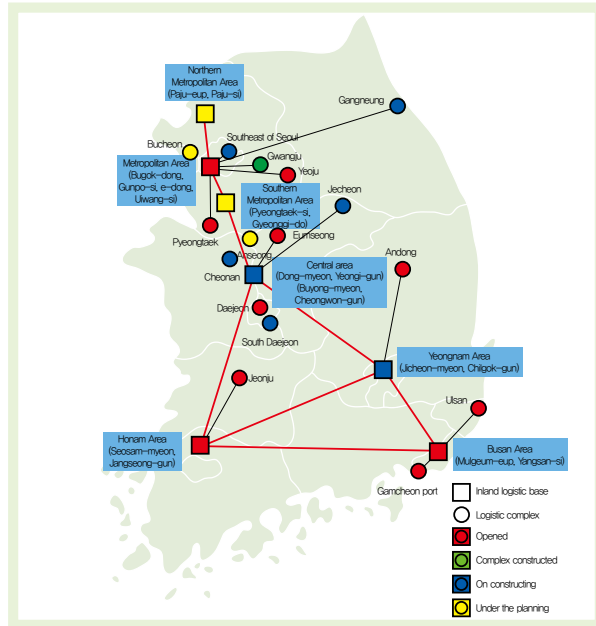
Facilities purposed for handling international cargoes, such as Incheon International Airport, industrial complexes in its vicinity, Gyeongin Arabet Gil, railway CYs, and so on, correspond to international distribution bases, whereas facilities intended for facilitating transport of import-export cargoes or transport of other types of cargoes among regions, such as complex distribution terminals, ICDs, railway CYs, correspond to metropolitan distribution bases. Facilities purposed for transporting and warehousing cargo within a certain geographic range in a systematic fashion, such as distribution complexes (old distribution complexes), general-purpose distribution terminals, and so on, correspond to regional distribution bases.

Implementing various types of distribution facilities, such as distribution terminals, collection and delivery complexes, wholesale and retail complexes, and wholesale markets for agricultural produce, and so on, has been relatively sluggish, given the rapid economic and trade growth Korea has enjoyed to date, resulting in a number of negative effects, such as lack of connectivity among distribution facilities, freight congestion, and an increase in distribution costs.

The Korean government introduced the distribution complex development scheme in 1995 by establishing the Distribution complex Development Promotion Act, with the aim of addressing such negative effects and making the most of advantages. Then, the government fully revised the Cargo Distribution Act and the Distribution Complex Development Promotion Act in order to strengthen comprehensive coordination functions of distribution facilities and prevent overlapped investments in distribution facilities.

In addition, the government has cut the amount of time needed for one to acquire a license for constructing a distribution complex by greatly simplifying license application and approval procedures.

:: Locations of complex distribution terminals and ICDs across Korea ::



A. Complex distribution terminals

Inland distribution bases refer to complex distribution terminals and inland container depots that have capacities and facilities for providing transportation services via more than two means of transportation (roads, railways, harbors, and airports). They can also be referred to as large-scale distribution facilities installed in key distribution bases across the country, in order to save distribution costs by collecting large quantities of goods and transporting them in bulk.

The Korean government administratively divided the country into five areas (metropolitan area, Busan area, Honam area, central area, and Yeongnam area) and has constructed and operated complex distribution terminals in each area. In addition, the construction of another three such facilities is in the works. In particular, ICDs have been arranged in the complex distribution terminals

:: Latest information on the facilities of complex distribution terminals :: (As of the end of 2011)

	Area	Project	Location	Land area(m ²)	Remarks
Phase 1	Metropolitan area	Gunpo Complex Distribution Terminal/Euiwang ICD	Gunpo, Gyeonggi Euiwang, Gyeonggi	381,736 753,127	Under operation
	Busan area	Yangsan Complex Distribution Terminal/ICD	Yangsan, Gyeongnam	316,944 951,940	Under operation
Phase 2	Honam area	Jangseong Complex Distribution Terminal/ICD	Jangseong, Jeonnam	520,782	Under partial operation
	Central area	Central Complex Distribution Terminal/ICD	Cheongwon, Chungbuk Yeongi, Chungnam	480,736	Under operation
	Yeongnam area	Yeongnam Complex Distribution Terminal/ICD	Chilgok, Gyeongbuk	456,499	Under operation
	Metropolitan area (expansion)	Gunpo Complex Distribution Terminal (expansion)	Gunpo, Gyeonggi	346,770	Under construction
	North of metropolitan area	Paju Complex Distribution Terminal/ICD	Paju, Gyeonggi	389,599	Implementation plan approved
	South of metropolitan area	Pyeongtaek Complex Distribution Terminal/ICD	Pyeongtaek, Gyeonggi	415,442	Whether to implement being reviewed

to create synergetic effects by increasing connectivity between facilities and operation efficiency.

However, most of the ICDs, bar the Gunpo and Euiwang complex distribution depots, have not gained enough traction to date, and the operator of the Honam Complex Distribution Depot has stopped investing in the depot since the initial launch of the depot in 2005, due to its failure to attract forecasted demand.

Meanwhile, the Yangsan ICD has lost its main function, due to the sharp fall in demand since the opening of New Busan Harbor. The volumes of cargo handled at the Yangsan ICD have been on a steady decline, after hitting its all-time high in 2005.

B. Distribution Complex

What is a distribution base?

A Distribution base is a system intended for supporting distribution functions of businesses by constructing a distribution center in a distribution complex by obtaining legal or administrative support to facilitate distribution processes. In regions designated as distribution bases, distribution complexes are established, and various forms of distribution centers are also established inside the distribution complexes, with the aim of bridging the gap between producers and consumers, maximizing companies' profits, and achieving sustainable growth by doing so.

National distribution bases can be defined as distribution facilities of certain sizes, developed by the government's direct investments or by local governments, public institutions, private businesses, and so on, after obtaining approval from the government or under the aegis of the government. Major national distribution infrastructures, such as harbors, airports, railway CYs, and so on, in addition to inland cargo depots and complex cargo terminals, logistics (distribution) complexes, port hinterlands, airport distribution complexes, general logistics terminals, and so forth, fall into the category of national distribution bases. The types of such national distribution bases can be divided into "international distribution bases" or "domestic distribution bases," according to spatial ranges in cargo transportation. They are places where cargo collection, discharging, as well as core distribution network functions, such as classification, packing, warehousing, processing, assembly, customs clearance and so on, are being carried out. For these reasons, distribution bases are built in the form of complexes packed with distribution facilities or facilities supporting distribution processes

The functions of distribution complexes can largely be divided into distribution functions and commercial functions. Distribution functions consist of trans-shipment, collection and delivery, warehousing, assembly, and processing of cargo, whereas commercial functions consist of sales, display, packing, etc. In distribution complexes, distribution facilities and commercial facilities are designed and arranged according to the characteristics, items, and position of each facility.

:: Latest information on Korea' s distribution complexes ::

(As of the end of 2011)

Item	Project (distribution complex)	Location	Project budget/state subsidies (KRW 100 million)	Project term
Total	Total	22	36,711,237	
	Subtotal	9	5,941/581	
Under operation	BusanGamcheon Harbor	Amnam-dong, Seo-gu, Busan	400/-	'98~'11
	Daejeon	Daejeong-dong, Yuseong-gu, Daejeon	1,590/354	'98~'03
	Ulsan Jinjang	Jinjang-dong, Buk-gu, Ulsan	1,177/75	'00~'07
	Eumseong	Daeso-myeon, Eumseong-gun, Chungbuk	382/-	'98~'07
	Andong	Pungsan-eup, Andong-shi, Gyeongbuk	185/4	'05~'07
Construction completed	Cheonan	Baekseok-dong, Cheonan-shi, Chungbuk	1,518/202	'00~'09
	Subtotal	11	25,752/454	
Under construction	Gangreung	Gujeong-myeon, Gangreung-shi, Gangwon	489/174	'99~'12
	Jecheon	Bongyang-eup, Jecheon-shi, Chungbuk	261/14	'03~'11
	Seoul Southeast Region	Munjeong-dong, Songpa-gu, Seoul	8,410/201	'04~'11
	South DaejeonJonghap	Gudo-dong, Dong-gu, Daejeon	1,399/-	'08~'12
	Icheon Fashion	Majang-myeon, Icheon-shi, Gyeonggi	2,630/-	'09~'11
	GwangjuChowol	Chowol-eup, Gwangju-shi, Gyeonggi	1,515/-	'09~'11
	Arabetgil Incheon	In the proximity of Gyeongseo-dong, Seo-gu, Incheon	3,648/-	'10~'11
	GimpoGochon	Gochon-myeon, Gimpo-shi, Gyeonggi	4,143/	'10~'11
	HwaseongDongtan	Dongtan-myeon, Hwaseong-shi, Gyeonggi	2,252/-	'10~'15
Designated as complex	BucheonOjeong	Ojeong-dong, Bucheon-shi, Gyeonggi	3,500/-	'08~'12

In Korea, as of the end of 2011, 11 distribution complexes are under operation, and another 11 complexes are under construction or development. Distribution complexes under operation are Daejeon, Busan–Gamcheon Harbor, Ulsan Jinjang, Eumseong, Andong, JeonjuJangdong, Pyeongtaek–Doil, Yeosu, Gwangju, Seoul Southeast, Cheonan Distribution Complexes, Distribution

complexes under construction are South Daejeon–Jonghap, Icheon Fashion, Gwangju–Chowol, Arabetgil Incheon, Yeongdong–Hwangan, Gimpo–Gochon, Hwaseong–Dongtan and Pyeongtaek–Cheongbuk Distribution Complexes. The latest information on the distribution complexes are detailed in the table below.

C. Operation status of general distribution terminals

There are 31 general distribution terminals nationwide, and they are playing the role of a stand-by place for collecting, transport, and arranging cargo. Some general distribution terminals have lost their functions after two decades of service due to ageing facilities and urban sprawl.

D. Joint cargo collection and delivery centers

The joint cargo collection and delivery center project is a distribution center construction project that has been implemented since 1988 under the leadership

:: Latest information on joint collection and delivery centers ::

Area	Location	Land area (m ²)	Attracted facility
Metropolitan area I	Suji, Yongin, Gyeonggi	149,879	Collection and delivery center
Metropolitan area II	Suji, Yongin, Gyeonggi	138,590	Collection and delivery center
Busan	Eom-gung, Sasang-gu	39,016	Collection and delivery center/ wholesale & retail complex
Daegu	Sangyeok, Buk-gu	139,670	Distribution complex/ collection and delivery center
Gwangju	Pungam&Maewol, Seo-gu	69,422	Distribution complex/ collection and delivery center
Gwangju, Gyeonggi	Docheok-myeon, Gwangju	264,000	Collection and delivery center
Sihwa Industrial Complex	Sihwa, Ansan	43,022	collection and delivery center
Pyeongtaek Distribution Complex	Doil, Pyeongtaek, Gyeonggi	201,974	Collection and delivery center
Ulsan Jinjang Distribution Complex	Jinjang, Bukgu, Ulsan	27,554	Collection and delivery center

※ Note : 1) Land areas only include the areas of collection and delivery centers or wholesale or retail complexes
2) The total project costs of Daegu and Gwangju are total project costs for building the distribution complexes
Source: Comprehensive bibliography on the distribution industry 2010, p.271.

:: Latest status of general distribution terminals ::

No	Region	Terminal name	Land area (m ²)	Total floor area (m ²)
	Total	31	1,221,536	332,010
1	Seoul	Korea Cargo Terminal	96,017	24,792
2	Seoul	West Truck Terminal	112,111	41,640
3	Seoul	East Distribution Terminal	19,463	4,465
4	Busan	Busan Distribution Terminal	85,667	11,569
5	Daegu	West Distribution Terminal	70,022	15,912
6	Daegu	North Distribution Terminal	9,878	2,016
7	Daegu	East Distribution Terminal	34,510	7,822
8	Incheon	ETEC Truck Terminal	30,460	5,474
9	Incheon	Incheon Dedicated Distribution Terminal	43,537	12,983
10	Incheon	Incheon Truck Terminal	45,984	1,879
11	Gwangju	Gwangju Cargo Vehicle Terminal	35,765	5,891
12	Gwangju	Pungam Distribution Terminal	39,304	14,192
13	Daejeon	Central Daejeon Distribution Terminal	59,556	22,074
14	Daejeon	Daejeon Common Terminal	60,242	36,561
15	Ulsan	Ulsan Distribution Terminal	41,593	13,456
16	Gyeonggi	Hanjin Distribution Terminal	9,395	3,331
17	Gyeonggi	Ansan Distribution Terminal	42,946	19,359
18	Gyeonggi	Ansan Distribution Terminal	35,592	3,826
19	Gyeonggi	Pyeongtaek Distribution Terminal	16,473	4,076
20	Chungbuk	Cheongju Distribution Terminal	19,654	4,776
21	Chungbuk	Boeun Distribution Terminal	6,934	474
22	Chungnam	Asan Common Distribution Terminal	21,475	545
23	Chungnam	Central Distribution Terminal	33,896	9,821
24	Jeonbuk	IksanJonghap Cargo	23,924	4,674
25	Jeonnam	Yeocheon Distribution Terminal	10,265	1,169
26	Jeonnam	Yeocheon Cargo Truck Terminal	15,554	2,896
27	Jeonnam	Yeosu General Distribution Terminal	51,268	39,260
28	Gyeongbuk	Samil Distribution Terminal	88,631	5,845
29	Gyeongbuk	Gumi Distribution Terminal	29,419	6,716
30	Gyeongnam	Jinju Distribution Terminal	21,574	2,145
31	Gangwon	Imdong Distribution Terminal	10,427	2,371

of the private sector, in order to advance distribution systems and promote wholesale and retail businesses. There are a total of nine centers, including six centers under operation, one under development, and two newly designated.

Most of the joint collection and delivery centers are located on the outskirts of large cities and are being operated in the form of a system, whereby goods produced across the country are collected and delivered to downtown wholesale or retail stores, such as department stores, discount stores, large warehouse stores, etc.

:: Latest information on facilities at railway CYs ::

Area	Railway line	Station	Land area (m ²)	Cargo handling capacity (TEU per annum)
Total		27	427,179	1449,000
Metropolitan & Chungcheong	Subtotal	10	87,661	318,000
	—	Obong	9,326	54,000
	Gyeongbu Line	Dujeong	12,568	42,000
	Gyeongbu Line	Maepo	4,233	14,000
	Janghang Line	Sapgyo	4,220	14,000
	Gyeongbu Line	Bugang	7,003	25,000
	Gyeongbu Line	Sojeong-ri	5,632	19,000
	Gyeongbu Line	Okcheon	5,449	18,000
	Gyeongbu Line	Jochiwon	12,108	41,000
	Chungbuk Line	Cheongju	18,862	63,000
Chungbuk Line	Chungju	8,260	28,000	
Honam	Subtotal	7	66,488	192,000
	Gunsan Line	Daeya	16,500	24,000
	Jeonla Line	Dongsan	4,650	16,000
	Jeonla Line	East Iksan	9,860	33,000
	Honam Line	Songjeong-ri	14,057	47,000
	Honam Line	Imgok	8,662	29,000
	GwangyangJecheol Line	Taegeum	7,648	26,000
	Yecheon Line	Heunguk Temple	5,111	17,000
Daegu & Gyeongbuk	Subtotal	3	65,642	220,000
	Gyeongbu Line	Apo	4,824	16,000
	Gyeongbu Line	Yakmok	48,078	161,000
	—	Gwedong	12,740	43,000
Southeast	Subtotal	5	204,888	711,000
	Gaya Line	Gaya	13,683	46,000
	Gyeongbu Line	Busan Jin	122,450	434,000
	Jinhae Line	New Changwon	36,249	122,000
	Onsan Line	Onsan	19,060	64,000
	Ulsan Harbor Line	Ulsan Harbor	13,446	45,000
Other areas	Subtotal	2	2,500	8,000
	Yeongdong Line	Seokpo	1,500	5,000
	Yeongdong Line	Gangreung	1,000	3,000

:: Latest information on distribution depots by characteristic ::

Facility type	Stations with distribution depots in the proximity
Container	Obong (Euiwang ICD), Dujeong, Sapgyo, Sojeong-ri, Jochiwon, Cheongju, Chungju, Bugang, Maepo, Sintanjin, Okcheon, Yakmok, Yangsan Cargo (Yangsan ICD), Busan Jin, Sinseondae, Gaya, Ulsan Harbor, Onsan, New Changwon, South Changwon, Gangreung, Seokpo, Gunsan, East Iksan, Dongsan, Jangseong Cargo (Jangseong ICD), Imgok, Songjeong-ri, Heunguk Temple, Taegeum, Gwangyang Harbor
Cement silo	Deokso, Seongbuk, Obong, Chuncheon, Paldang, Susaek, Choseong-ri, Osong, Daejeon Marshaling Yard, Sintanjin, Cheongju, Oryu-dong, Sin-dong, Heukseok-ri, Bugang, Eumseong, Ganchi, Sinseong, Yeonmudae, Doan, Maepo, South Munsan, Hanrimjeong, Geukrakgang, Buyong, North Jeonju, Mureung, Sinnyeong, Pyeongun, Jangseong
Tributary center	Yongsan, Seongbuk, Onsan, Obong, Susaek, Jinju, Janghang Cargo, North Jeonju
Car shed	Seongbuk, Ulsan
Other	Obong-Euiwang Steel Products Distribution Depot, Donghae Mineral Warehouse

Source: Korail

E. Railway CYs

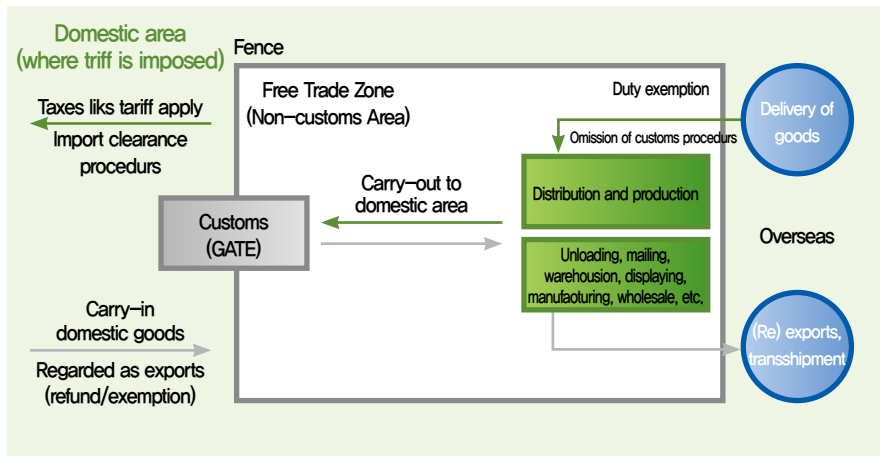
Railway CYs refer to container yards installed at railway stations for the inland transport of import-export containers. Although 27 stations are equipped with railway CYs at this point, the railway CYs are being merged with each other or closed in the process of restructuring that has been implemented since the Korean Railroad Corporation took over the management of railway facilities from the Korean National Railroad.

Meanwhile, container distribution depots have been constructed in 31 locations, among railway stations across the country, including the Obong Station (ICD). In addition, cement silos have been installed in 31 locations, including the Deokso Station.

3. Free Trade Zones

A. Ideas Behind Free Trade Zones

:: Conceptual diagram of a free trade zone ::



Free trade zones are areas where special tariff benefits are applied and free manufacturing, transport, and distribution activities are guaranteed by special benefits and support, in accordance with the Tariff Act, the Overseas Trading Act, etc.

The goal of introducing a free trade zone is to contribute to advancing the national economy by attracting foreign investments, reinvigorating the trading industry, facilitating international distribution processes, and promoting regional development.

Since the launch of the Masan Free Trade Zone in the 1970s, a number of free trade zones have been operated in Korea, with the aim of attracting foreign investments, promoting exports, creating more jobs, promoting international trading and distribution activity, etc.

Over the last four decades of export-oriented economic growth, free trade zones have been playing the role of a window for attracting capital investments and advanced technologies required by the Korean economy, while spurring

growth of the national economy by increasing exports, earning foreign currencies, accumulating capital, introducing and spreading advanced technologies.

In addition, the statutes related to free trade zones have evolved in line with the transformation of free trade zones into free trade zones, where traditional export-processing areas are integrated with manufacturing, distribution, trading businesses, and so on, in response to the growing convergence between manufacturing and distribution businesses. In 2004, the traditional free trade zones and tariff free zones were integrated into free trade zones.

B. Incentives

Businesses located in free trade zones can enjoy a wealth of benefits, including tariff refund, tariff deferral, low lease rates, various tax abatement schemes, etc.

First of all, tariff refund and deferral are possible, in addition to exemption from taxation for items used for the production and manufacturing of machinery or parts for industrial facilities or raw materials. Items that are subject to exemption from taxation include: machinery, tools, facilities, equipment, parts for such facilities or equipment, raw materials, office supplies, construction materials, etc. In addition, items (intermediate trade items) stored by those engaged in the distribution or trading industry for a certain period of time are subject to tariff deferral.

The biggest benefit of free trade zones is low lease rates. The Ministry of Knowledge Economy is providing land at a lease rate as low as only 1% of the market land prices in consultation with the Ministry of Strategy and Finance.

The lease rates in free trade zones are equivalent to 10–20% of those in their vicinity. For Gunsan and Daebul, businesses with highly advanced technologies are permitted to use land at no cost over the next decade.

Foreign companies investing in Masan and Iksan (the old free trade zones) are subject to a 100% reduction in corporate and income taxes for five years (or a 50% reduction for two years). In addition, such companies are subject to a tax abatement of 50–100% for up to 15 years with respect to property, acquisition, registration, and composite land taxes. For foreign companies (since the establishment of the Foreign Investment Promotion Act) investing in other free trade zones, manufacturing businesses investing over USD10 million or distribution businesses investing over USD5 million are subject to a 100% reduction in corporate and income taxes (or a 50% reduction for two years) and a 50–100% reduction in property, acquisition, registration, and composite land taxes for up to 15 years. Goods, supplied to free trade zones as additional exports or goods and services provided to companies located within free trade zones, are not subject to value-added taxes.

From an administrative perspective, related governmental agencies are providing quick, one-stop services as to building licenses, establishment of factories, tax reduction, foreigners' investment declaration, etc.

C. Key facilities

Free trade zones in Korea can largely be divided into the following three types:

① Distribution-oriented free trade zones: The main goal of free trade zones

:: Types of free trade zones and management and operating bodies ::

Category	Type	Designation status	Designator	Person with authority of management	Managing agency
Manufacturing-oriented	Complex type (8)	Masan, Iksan, Gunsan, Daebul, Donghae, Yulchon, Ulsan, Gimjae		Minister of Ministry of Knowledge Economy	Administration agency for free trade zone (Masan, Gunsan, Daebul)
Distribution-oriented	Harbor type (5)	Busan Harbor, Gwangyang Harbor, Incheon Harbor, Pohang Harbor, Pyeongtaek–Dangjin Harbor	Minister of Ministry of Knowledge Economy	Minister of Ministry of Transport and Maritime Affairs	Regional Office of Maritime Affairs and Fisheries
	Airport type (1)	Incheon International Airport			Minister of Ministry of Land, Transport and Maritime Affairs

of this type is to promote trading and distribution activities through deregulation associated with international trading activities and are mainly installed in the vicinity of harbors or airports.

② Production-oriented free trade zones: The main goal of free trade zones of this type is to promote technology transfer or the advancement of industrial structures by attracting foreign investments. The typical examples of this type of free trade zone are the export processing areas in industrial complexes located in littoral districts.

③ Production-distribution complex free trade zones: Most of the free trade zones are in pursuit of being production-distribution complex zones, integrating production functions with distribution.

The management of free trade zones of an industrial complex type is performed by the administration agency of each free trade zone that falls under the remit of the minister of the Ministry of Knowledge Economy, and free trade

zones of a harbor or airport type fall under the remit of the minister of the Ministry of Land, Transport and Maritime Affairs, so that each free trade zone can be managed in a way tailored to local situations in a professional fashion.

Export-driven businesses, manufacturing businesses invested by foreigners, wholesale businesses mainly aimed at import-export transactions, distribution businesses including the stevedoring, transport, warehousing, and display of goods, businesses related to complex distribution (international transport arrangement, international sales of ships, packing, businesses related to packing, repairing, processing, and assembly), businesses related international distribution (ship repair, maintenance, assembly, etc.), businesses related to the development and lease of distribution facilities, businesses supporting other businesses located in free trade zones, public institutions, government agencies and so on, can operate within free trade zones.