

North Korea's Official Markets in 2022

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KOREA INSTITUTE FOR
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North Korea's Official Markets in 2022

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Table of Contents

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1. Survey Overview	1
2. Local Distribution of Official Markets in North Korea	5
A. Total Number of Official Markets	7
B. Changes in Official Markets	8
C. Distribution of Official Markets by Province	11
D. Population and Number of Markets	15
E. Distribution of Official Markets by City	17
3. Estimated Size of Official Markets and Total Stall Numbers	21
A. Estimated Market Size	23
B. Total Estimated Number of Stalls	26
C. Estimated Number of Workers at Official Markets	32

1

Survey Overview

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■ **A covering investigation based on satellite images**

- This survey located official markets in operation across 28 cities, 140 counties, three districts, and two sub-districts based on North Korea's administrative divisions, and identified their spatial distribution.
- This survey used satellite images to locate markets and analyze historical changes.
- A covering investigation was undertaken for the research titled "Market Information on North Korea: With a Focus on Official Markets," a report published in 2016 based on interviews with North Korean defectors and analysis of satellite images. This survey compared and analyzed changes in official markets by location as of 2022.

2

Local Distribution of Official Markets in North Korea

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A. Total Number of Official Markets

- The total number of official markets in North Korea was 414 as of November 2022.¹⁾
 - The total number increased by 10 from 404 as identified in 2016 survey.
 - Details of the tally are as follows.

Table II-1 Total Number of Official Markets in North Korea

Classification	2016	2022	Not included in the 2016 survey		Changes between 2017 and 2022	
			Unconfirmed ²⁾	Unidentified ³⁾	New	Closed
Total	404	414	4	7	7	8

- ① A total of 7 new markets were added from 2017 to the present.
- ② A total of eight markets were closed from 2017 to the present.
- ③ Four markets that were identified in the 2016 survey but

¹⁾ Ryusa Market located in Ryusa-dong, Nampo City was discovered in December 2022, but it was determined that a period of observation was needed to confirm it as an official market, so it was not included in the total number, but only added to the list in Chapter V of the original Korean version of this research.

²⁾ Unidentified markets refer to markets that were identified as markets in the 2016 survey, but included in the overall list due to unclear boundaries and small size, but excluded from the total number of markets in the past, and now have been included in a total number as recent satellite imagery has made it possible to confirm their boundaries.

³⁾ Unidentified markets are those that were not confirmed in the 2016 study due to difficulty in identifying them through low-resolution satellite imagery and interviews with North Korean defectors, but were recently confirmed through high-resolution satellite imagery.

excluded from the total number because they were not clearly categorized were included in this survey: Samsok District Market in Pyongyang City, Pyoktong Market in Pyoktong County of North Pyongan Province, Hwapyong Market in Hwapyong County of Chagang Province, and Dongshin Market in Dongshin County of Chagang Province.

- ④ Seven markets that existed in 2016 but were not identified in the previous survey were included in this survey: Jikyeong Market in Rason Special City, Bangjin Market and Raksan Market in Chongjin City, and Farmer's Market in Orang Town of North Hamgyong Province, Pyengseongdong Market in Pyeongseong City of South Pyongan Province, Myungdang Market in Sangwon County of North Hwanghae Province, and Goam Market in Muncheon City of Gangwon Province

- There was a net increase of -1 official markets in North Korea between December 2016 and November 2022.

B. Changes in Official Markets

- The total number of market changes across the country was 116, including new market opening, closures, relocations, as well as upscaling and downscaling renovations.
 - The number of expansive changes was 45, including new market opening and upscaling renovations.
 - The number of downsizing changes was 26, including closures and downscaling renovations.
 - Although there was a net increase of -1 in the total number of markets, the ongoing upscaling of market size has been active.

Table II-2 Total Numbers and Changes in Official Markets by Province in North Korea

Province	Total Number in Province		Not included in the 2016 survey		Changes between Jan. 2017 – Nov. 2022					
	2016	2022	Unconfirmed	Unidentified	Opening	Closure	Relocation**	Upscaling	Downscaling	Total Changes
South Pyongan Province	65	68		1	2		3	3	1	9
North Pyongan Province	51	50	1			2	7	9	2	20
North Hamgyong Province	46	46		3	1	4	4	1	5	15
South Hamgyong Province	48	48					5	1	4	10
South Hwanghae Province	34	34					6	7	1	14
North Hwanghae Province	29*	33		1	3		2	4	1	10
Pyongyang City	30	31	1				4	1	1	6
Kangwon Province	29	30		1			3	2	2	7
Chagang Province	24	27	2		1		4	5		10
Rygang Province	18	18					3	1	1	5
Nampo Special City	21	21					3	3		6
Nason Special City	4	3		1		2				2
Kaesong Special City	5*	5					1	1		
Total	404	414	4	7	7	8	45	38	18	116

* In 2016, there were a total of 34 markets in North Hwanghae Province (including Kaesong City). However, the five markets located in Kaesong City at the time were separated out for the sake of convenience when calculating the statistics for Kaesong Special City in 2022.

** Relocation includes both upscaling relocation and downscaling relocation, which are also counted into the numbers of expansion and contraction.

- The number of relocations was 45: 26 were upscaling relocations; 15 were downscaling relocations; and 4 had no change in size.
- Mostly upscaling relocations took place as the number of upscaling relocations doubles the number of downscaling relocations.
- Among the 38 upscaling relocations, 12 increases its size in the same place while 26 relocated, indicating that when expanding the market size, the number of upscaling relocation was more than twice as many as upscaling without relocation.

Table II-3 Relocation Types of Official Markets

Province	Upscaling	Downscaling	No Change in Size	Total
South Pyongan Province	2	1		3
North Pyongan Province	5	2		7
North Hamgyong Province	1	3		4
South Hamgyong Province	1	4		5
South Hwanghae Province	5	1		6
North Hwanghae Province	1	1		2
Pyongyang City	1	1	2	4
Kangwon Province	2	1		3
Chagang Province	4			4
Ryanggang Province	1	1	1	3
Nampo Special City	3			3
Rason Special City				0
Kaesong Special City			1	1
Total	26	15	4	45

C. Distribution of Official Markets by Province

- The average number of markets for the nine provinces was 31.8, showing almost no change from 31.0 in 2016.⁴⁾
 - Pyongyang City (30→31),⁵⁾ Nampo Special City (21→21), Rason Special City (4→3)⁶⁾ were among those with little change.

Table II-4 Number of Official Markets by Province in North Korea

Province	City-County	Number of Official Markets		Total Market Number of the Province	
		2016	2022	2016	2022
South Pyongan Province	Pyongsong City (provincial capital)	6	7	65	68
	Anju City	3	3		
	Kaechon City	9	10		
	Sunchon City	3	4		
	Tokchon City	8	8		
	14 counties (<i>gun</i>)	33	33		
	Ungok District, Tukchang District	2	2		
	Chongnam Subdistrict	1	1		
North Pyongan Province	Sinuiju City (provincial capital)	6	6	51	50
	Jongju City	2	2		
	Kusong City	3	3		
	22 counties (<i>gun</i>)	40	39		

⁴⁾ In the 2016 survey, the average number of markets per province was 33.7 because Kaesong Special City was not separated, but in this report, the number is calculated by separating Kaesong Special City.

⁵⁾ Although an official market in the Samsok District was identified during the investigation for the 2016 survey, it was excluded in the survey because its category could not be determined. In this survey, however, this market was included as the category was determined.

⁶⁾ Sonbong District of Rason Special City lost two markets as floods damaged the entire district.

Province	City·County	Number of Official Markets		Total Market Number of the Province	
		2016	2022	2016	2022
North Hamgyong Province	Chongjin City (provincial capital)	19	22	46	46
	Kimchaek City	3	2		
	Hoeryong City	2	2		
	12 counties (<i>gun</i>)	22	20		
South Hamgyong Province	Hamhung City (provincial capital)	11	11	48	48
	Tanchon City	4	4		
	Sinpo City	4	4		
	15 counties (<i>gun</i>)	25	25		
	Kumho District	1	1		
	Sudong Subdistrict	3	3		
South Hwanghae Province	Haeju City (provincial capital)	4	4	34	34
	19 counties (<i>gun</i>)	30	30		
North Hwanghae Province	Sariwon City (provincial capital)	4	5	29	33
	Songrim City	3	3		
	15 counties (<i>gun</i>)	22	25		
Pyongyang City	Pyongyang City	24	25	30	31
	2 counties (<i>gun</i>)	6	6		
Kangwon Province	Wonsan City (provincial capital)	4	4	29	30
	Munchon City	3	4		
	15 counties (<i>gun</i>)	22	22		
Chagang Province	Kanggye City (provincial capital)	2	3	24	27
	Manpo City	3	3		
	Huichon City	3	3		
	15 counties (<i>gun</i>)	16	18		
Ryanggang Province	Hyesan City (provincial capital)	5	5	18	18
	Samjiyon City	1	1		
	10 counties	12	12		
Nampo Special City	District	14	14	21	21
	County (<i>gun</i>)	7	7		
Rason Special City	Sonbong District	2	0	4	3
	Rason District	2	3		

Province	City·County	Number of Official Markets		Total Market Number of the Province	
		2016	2022	2016	2022
Kaesong Special City	3 dong	3	3	5	5
	2 counties (<i>gun</i>)	2	2		
Total				404	414

■ Cities ranked high in market count by province

- Compared to the 2016 survey, there were no changes in cities' rankings for their number of markets, with North Hwanghae Province adding four markets, South Pyongan Province three markets, Chagang Province three markets, and Pyongyang City and Kangwon Province each adding one market.
- As in the 2016 survey, South Pyongan overwhelmingly outnumbered other regions in the number of markets. If Pyongyang Municipality and Nampo Special City are included in South Pyongan province, the province has 120 official markets accounting for 29% of the total number of markets.
- Geographically, South Pyongan and North Hwanghae alone saw an increase in the number of markets by 7. There are a total of 158 markets⁷⁾ located in Pyongyang City, Nampo Special City, and Kaesong Special City in addition to South Pyongan and North Hwanghae, which account for 38% of all markets.

■ Logic behind the distribution of official markets by province

- 1 Markets remained concentrated on transport routes for goods in North Pyongan (Sinuiju–Dandong), South Pyongan, Pyongyang,

⁷⁾ Pyongyang City, Nampo Special City, and Kaesong Special City are included.

North Hwanghae, and South Hwanghae.

- [2] The more administrative divisions, (i.e. cities, counties, districts, and subdistricts) a province had, the more markets it had.
- The top five provinces by number of markets (South Pyongan, North Pyongan, South Hamgyong, North Hamgyong, and North Hwanghae) had three to five cities each.
 - Since the location of official markets was determined based on the information about administrative divisions with the purpose of improving convenience for residents, constant correlations were identified between the number of administrative divisions and the number of regional markets.
- [3] Correlations between population and the number of markets: The top five provinces in the number of populations were also the top five in market numbers.
- The most populated region was South Pyongan, followed by Pyongyang, South Hamgyong, North Pyongan, North Hamgyong, and North Hwanghae, in this order according to the 2008 North Korean population census.⁸⁾
 - The top five regions in the number of population had a large population of plant workers and corporate employees, forming a significant number of population engaged in market activities.
- [4] Market concentration continues in the west coast region.
- A total of 242 markets, or 58.5% of the total (235 in 2016),

⁸⁾ North Korean Statistics Portal, Statistics Korea, "North Korea Population Estimates," <<https://kosis.kr/bukhan/index/index.do>> (Date accessed: October 31, 2022).

were located in four provinces and three special cities in the West Coast region: South Pyongan (68), North Pyongan (50), North Hwanghae (33), South Hwanghae (34), Pyongyang (31), Nampo (21), and Kaesong (5). In comparison, the East Coast region hosted 127 markets, accounting for 30.7% of the total.

- In contrast, the East Coast Axis regions (127)⁹⁾ accounted for 30.7%.
- Reasons for the West-concentrated market distribution include the initial development of traffic lines in the East and West axes established under Japanese colonial rule; the construction of roads for movement of goods from China along the East and West traffic lines; and the movement of goods to major ports along the East and West coasts.

D. Population and Number of Markets

- North Korea's population was estimated to have increased by about 2,248,164 between 2008 and 2022, based on calculations using the 2008 population census's estimate of North Korean population, 23,349,859¹⁰⁾ and Statistics Korea's 2022 estimate of North Korean population, 25,598,023.¹¹⁾

⁹⁾ Rason Special City, North Hamgyong Province, South Hamgyong Province, and Kangwon Province

¹⁰⁾ North Korean Statistics Portal, Statistics Korea, "The Number of Regions per the Population Size and the Number of Population," <<https://kosis.kr/bukhan/index/index.do>> (Date accessed: October 31, 2022).

¹¹⁾ North Korean Statistics Portal, Statistics Korea, "North Korea Population Estimates," <<https://kosis.kr/bukhan/index/index.do>> (Date accessed: October 31, 2022).

■ **The number of population per market increased by 5,566 from 56,265 in 2016 to 61,831 in 2022.**

- There were 56,265 people per market when dividing the total population by the total number of markets, 415 (the unidentified count) according to the 2008 North Korea Census, which was the baseline for the 2016 survey.
- The 2022 survey indicates that there are 61,831 people per market when dividing the estimated North Korean population of 25,598,023 by 414 markets.
- When comparing 2016 and 2022 using this calculation, arithmetic estimate suggests that each market serves 5,566 more people in 2022. However, given that the 2016 survey was based on 2008 census statistics, which does not reflect population growth over the eight years, the number of people covered by one market has increased by about 2,000.
- Overall, the population grew by an estimated 2.24 million people between the two periods, but the number of markets decreased by one.
- While the number of markets did not increase quantitatively in proportion to the increase in population, it can be interpreted that each market was able to accommodate the increased population by expanding its facilities.
- In the meantime, diversification of consumption and distribution methods outside of official general markets may have buffered the pressure on the need for increasing number of markets.

E. Distribution of Official Markets by City

Table II-5 Number of Official Markets by City and County in North Korea

Classification	City			County	District	Sub-district
	Municipality	Special City	General City			
Number of Administrative Divisions	1	3	24	140[144] ¹²⁾	3[5] ¹³⁾	2
Number of Markets	31(↑1)	29(↑4)	123(↑3)	223(↑2)	3	4
	183(↑8)					

(The numbers inside the parentheses refer to increase from 2016)

- Changes in the market numbers by administrative division at the province level or less indicate that eight markets were added to cities and two markets were added to a county, a district, and a subdistrict.
 - Out of the 10 markets added, eight were located in cities. There were relatively few increases at the county level. → Increases mostly happened in cities.
- An average of 6.53 official markets were located in 28 cities across North Korea. While each county had an average of 1.59 official markets, cities had four times more markets.
 - The number was a slight rise from the 2016 survey of 6.52 on average. Counties showed few changes.

¹²⁾ Although the total number of counties is 145, 4 counties belonging to the administrative districts of Pyongyang City and Nampo City were excluded. Hence the figure was 141.

¹³⁾ Although the total number of districts was five, Sonbong District and Rason District were included in Rason Special City in the calculation.

Table II-6 Number of Markets for 27 Cities in North Korea

Rank	City	Total	Rank	City	Total
1	Pyongyang Municipality	30→31		Sinpo City	4
2	Chongjin City*	19→22		Sunchon City	3→4
3	Nampo Special City	21		Munchon City	3→4
4	Hamhung City*	11	11	Manpo City	3
5	Kaechon City	9→10		Huichon City	3
6	Tokchon City	8		Anju City	3
7	Pyongsong City*	6→7		Kusong City	3
8	Sinuiju City*	6		Rason Special City	4→3
9	Kaesong City	5		Songrim City	3
	Hyesan City*	5		Kanggye City*	2→3
	Sariwon City*	4→5	12	Kimchaek City	3→2
10	Haeju City*	4		Jongju City	2
	Wonsan City*	4		Hoeryong City	2
	Tanchon City	4	13	Samjiyon City	1

* Provincial capital

■ As for changes in market numbers, eight cities saw increases while two cities recorded decreases. Chongjin City confirmed its status as the largest wholesale market by adding three more markets.

- Chongjin City had the highest growth in its number of markets at three, strengthening its dominant status as the nationwide wholesale market.
- Rason Special City suffered inundation and burial of market areas due to floods in the northern part of the nation in 2017.

■ Pyongyang City was ranked number one, adding one more market, strengthening its market status by district.

- Even when rural markets in Kangdong County and Kangnam County of Pyongyang were excluded, urban areas alone had a total of 25 markets.
- Pyongyang had 18 districts¹⁴⁾ with markets located in each of them.

■ **Provincial capitals had relatively more markets, with many of them leading national or local wholesale markets.**

- Eight out of nine provincial capitals were ranked among the top 10.
- Most provincial capitals are important traffic areas and traditionally crucial industrial bases. Since province- and city-level organizations are concentrated in the capitals, receiving approvals and permissions for construction and development is easy, a condition that has attracted numerous workers who basically belong to the consumer population.

¹⁴⁾ Nakrang District, Taedonggang District, Taesong District, Tongdaewon District, Mangyongdae District, Moranbong District, Potonggang District, Sadong District, Samsok District, Sosong District, Songyo District, Sunan District, Ryokpo District, Ryongsong District, Unjong District, Central District, Pyongyang District, and Hyongjesan District

3

Estimated Size of Official Markets and Total Stall Numbers

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A. Estimated Market Size

- The total market size was estimated to have grown by 107,623 m² (32,556 pyeong) from 2016.
 - The total market size of North Korea was assessed to be 1,944,642m² (588,254 pyeong), increased by 105,060m² (31,781 pyeong) from 1,839,582m² (556,474 pyeong) in 2016.
 - The total size of official markets was about two-thirds the size of Yeouido (2.9km²), a large island on the Han River in Seoul.

Table III-1 Total Estimated Size of Official Markets by Province in North Korea

Province	Number of Markets	Total Size (Unit: m ²) (2016)	Average Size per Market (Unit: m ² , pyeong)	Largest Size (Unit: m ²)	Smallest Size (Unit: m ²)
South Pyongan Province	68	275,218 (240,917)	4,047 (1,224 pyeong)	13,968 Jurye Market in Pyongsong	380 Yongjin Market in Kaechon
North Pyongan Province	50	220,468 (213,112)	4,409 (1,334 pyeong)	13,828 Jongju Market in Jongju	804 Soopunggu Market in Sakju
South Hamgyong Province	48	249,672 (253,218)	5,202 (1,596 pyeong)	16,721 Pyongsu Market in Hamhung	661 Puraesan Subdistrict in Kowon
North Hamgyong Province	46	215,951 (217,458)	4,694 (1,429 pyeong)	30,887 Sunam Market in Chongjin	100 Pangjin Market in Chongjin
North Hwanghae Province	33	173,219 (152,740)	5,249 (1,590 pyeong)	15,568 Saemaul in Songrim	519 Yeokjon Market in Singye
South Hwanghae Province	34	224,774 (206,455)	6,611 (1,837 pyeong)	21,303 Yangsa Market in Haeju	956 Kumgok Market in Paechon

Province	Number of Markets	Total Size (Unit: m ²) (2016)	Average Size per Market (Unit: m ² , pyeong)	Largest Size (Unit: m ²)	Smallest Size (Unit: m ²)
Pyongyang City	31	216,855 (207,202)	6,994 (2,115 pyeong)	17,870 Kangdong Market in Kagndong-gun	622 Snagrigu Market in Kangdong-gun
Kangwon Province	30	100,362 (101,817)	3,345 (1,012 pyeong)	15,052 Kalma Market in Wonsan	255 Songmun Market in Muncheon
Chagang Province	27	82,268 (63,572)	3,047 (922 pyeong)	10,484 Doksan Market in Kanggye	507 Munak Market in Manpo
Nampo Special City	21	108,509 (103,061)	5,167 (1,563 pyeong)	17,004 Jungdaedong Market	485 Jungakgu Market
Ryanggang Province	18	32,271 (31,499)	1,793 (529 pyeong)	6,901 Hyesan Market in Hyesan	571 Pochon Market in Pochon
Rajin Special City	3	21,350 (26,840)	6,710 (2,029 pyeong)	16,869 Sinheong Market	1,700 Jikyong Market
Kaesong Special City	5	23,725 (21,691)	4,745 (1,437 pyeong)	12,417 Posundong Market	1,201 Koryodong Market
Total	141	*2022 1,944,642 (588,254 pyeong) *2016 1,839,582 (556,474 pyeong)	4,697 (1,420 pyeong)	[Average] *2022 16,067 *2016 15,083	[Average] *2022 674 *2016 718

■ The regions with the largest total market size were estimated to be South Pyongan Province (275,218m²), South Hamgyong Province (249,672m²), South Hwanghae Province (224,774m²), North Pyongan Province (220,468m²), and Pyongyang City (216,855m²).

- In 2016, South Hamgyong Province (253,218m²) had the

largest total market size, followed by South Pyongan Province (240,917m²), North Hamgyong Province (217,458m²), and North Pyongan Province (213,112m²).

- South Pyongan Province was the number one in its number and size of markets.

- **The average market size was 4,697m² (1,420 pyeong), equivalent to one-third of Seoul Plaza (13,207m²) or Jamsil Baseball Stadium (13,880m²) in South Korea.**
 - The figure was 4,630m² (1,401 pyeong) in 2016, indicating that there were no significant changes in the size of markets.

- **The largest market was Sunam market (30,887m²) in Chongjin City and the smallest one was Pangjin market (100m²) in Chongjin City.**
 - The average size of the largest markets in each province was 16,067m² (4,860 pyeong), which is slightly larger than Dongdaemun Market (14,437m²) in South Korea when considering only the lot area.¹⁵⁾
 - North Korea had 13 markets with the lot area equivalent to Dongdaemun Market.
 - If the gross floor areas of the recently introduced multi-floor markets were counted, the figure may have grown.
 - Chongjin Market, the largest in North Korea, was assessed to have grown by 30% from 23,487m² in 2016.

¹⁵⁾ Dongdaemun Market is much larger when compared in terms of gross floor area (59,683m²). However, this survey used the lot area for comparison to better understand the spatial size.

■ Top 10 Markets in Size

- North Hamgyong Province – Sunam Market in Sunam District, Chongjin City (30,887m²)
- South Hwanghae Province - Yangsa Market in Yangsa Neighborhood, Haeju City (21,303m²)
- Pyongyang City – Kangdong Market in Kangdong county (17,870m²)
- Nampo Special City – Jungdaedudong Market in Hanggu District (17,004m²)
- Rasun Speical City – Shinheung Market in Shinheungdong (16,869m²)
- South Hamgyong Province - Pyongsu Market in Pyongsu Neighborhood, Hamhung City (16,721m²)
- Nampo Special City – Chonjindong Market in Chollima District (16,695m²)
- South Hwanghae Province - Anak Market in Anak County (16,239m²)
- Pyongyang City - Unification Street Market in Nakrang (16,032m²)
- North Hwanghae Province - Saemaul Market in Saemaul Neighborhood, Songrim City (15,568m²)

B. Total Estimated Number of Stalls

■ Method for estimation

- ① The locations of markets in 173 administrative divisions, including Pyongyang Municipality, Rason Special City, Nampo Special City, Kaesong Special City, and nine provinces (24 cities, three districts, two sub-districts, 140 counties)

were identified through Google Earth satellite images.

- ② The number of markets were tallied for 173 units (cities, counties, districts, sub-districts) and provinces.
- ③ Market size was assessed based on market's fences using Google Earth Pro.
- ④ The size of stalls varied depending on the market and the items sold. Accordingly, estimating the number of stalls accounting for these differences was practically impossible.
- ⑤ The 173 administrative divisions were categorized into four grades and the average size of stalls belonging to each grade was determined.
- ⑥ The stall size ranged from 60cm to 110cm. Large wholesale markets had relatively smaller stalls while rural towns had larger stalls.

■ **The markets were divided by size into four categories, with size decided based on the stalls.¹⁶⁾**

- In this survey, each city and county were categorized into four grades based on estimated market sizes. Different stall lengths (60cm, 70cm, 80cm) were applied to each grade to obtain the number of stalls.
- First grade: Cities with wholesale markets and a nationwide distribution network. Most cities in this category were provincial capitals.
- Second grade: Cities with markets that function as local wholesale markets connecting cities and counties.

¹⁶⁾ The categorization follows the criteria specified in Hong Min et al, North Korean National Market Information: Focusing on the Status of the Official Market (Seoul: Korea Institute for National Unification, 2016), pp. 29-30.

- Third grade: General cities ranked low in population size.
- Fourth grade: Cities with smaller populations and those categorized as a county.
- The total market size of cities associated with a grade was divided by the average size of the stall of the grade to calculate the total number of stalls.¹⁷⁾
- Total daily market rental fee per market was also calculated based on the total number of stalls obtained through the method above.

Table III-2 Administrative Divisions (Cities, Counties, Districts, Sub-districts) by City Grade in North Korea

Classification	1st Grade	2nd Grade	3rd Grade	4th Grade
Subcategory	National wholesale markets	Local wholesale markets	Markets in general cities	Markets in general cities and counties
	Nationwide distribution networks	Leading markets in high ranking cities	Leading markets in low ranking cities	Small markets in low ranking cities
	Provincial capital level	Provincial capital level	General cities	General cities and counties
City Associated with the Classification	Pyongyang (municipality)	Sariwon City in North Hwanghae Province	Tanchon City in South Hamgyong Province	Jongju City in North Pyongan Province
	Hamhung City in South Hamgyong Province	Sunchon City in South Pyongan Province	Kaechon City in South Pyongan Province	Huichon City in Chagang Province
	Chongjin City in North Hamgyong Province	Haeju City in South Hwanghae Province	Kaesong (Special City)	Sinpo City in South Hamgyong Province

¹⁷⁾ This survey used fence, instead of roofs, to estimate the number of stalls, as stalls are densely gathered in many places within fences, and fences are closer to the actual stall size. Stalls are not only placed under roofs. Accordingly, if only stalls with roofs had been counted, it would have been hard to obtain the actual numbers. In addition, if a roof covers an entire market, instead of each line of stalls, counting each stall would have been impossible.

Classification	1st Grade	2nd Grade	3rd Grade	4th Grade
	Wonsan City in Kangwon Province	Rason (Special City)	Kanggye City in Chagang Province	Songrim City in North Hwanghae Province
	Sinuiju City in North Pyongan Province	Hyesan City in Ryanggang Province	Anju City in South Pyongan Province	Munchon City in Kangwon Province
	Pyongsong City in South Pyongan Province		Tokchon City in South Pyongan Province	Manpo City in Chagang Province
	Nampo (Special City)		Kimchaek City in North Hamgyong Province	Samjiyeon City in Ryanggang Province
			Kusong City in North Pyongan Province	County (140)
			Hoeryong City in North Hamgyong Province	District (3) ¹⁸⁾
				Subdistrict (2)
Number of Regions	7	5	9	7 + 145 = 152
Stall Length (1 stall)	60cm	70cm	70cm	80cm
Stall Size (1 stall)	1.4m ²	1.75m ²	1.75m ²	1.9m ²

■ Using this method, the number of total stalls at official markets in North Korea was estimated to be 1,153,722.

- Compared to the 1,092,992 stalls in 2016, the figure increased by 60,730.
- The average number of stalls in nine provinces, Pyongyang Municipality, Nampo Special City, Rajin Special City, and

¹⁸⁾ There are five districts in North Korea's administrative divisions: Rason District, Sonbong District, Ungok District, Tukchang District, and Kumho District. In this table, Rason District and Sonbong District were combined into Rason Special City, and the other three districts were calculated independently.

Kaesong Special City was 88,748, decreasing by 2,335 from 91,083 in 2016.¹⁹⁾

- The average population an official market caters to was 61,830 and the average number of stalls per market was 2,787.

Table III-3 Estimated Number of Stalls in Official Markets by Province in North Korea

Province	Number of Markets	Total Area (Unit: m ²) (2016)	Average Area per Market (Unit: m ² , pyeong)	Number of Stalls of the Province	Number of Stalls per Market
South Pyongan Province	68	275,218 (240,917)	4,047 (1,224 pyeong)	157,566	2,317
North Pyongan Province	50	220,468 (213,112)	4,409 (1,334 pyeong)	122,133	2,443
South Hamgyong Province	48	249,672 (253,218)	5,202 (1,596 pyeong)	146,949	3,061
North Hamgyong Province	46	215,951 (217,458)	4,694 (1,429 pyeong)	134,592	2,926
North Hwanghae Province	33	173,219 (152,740)	5,249 (1,590 pyeong)	95,523	2,804
South Hwanghae Province	34	224,774 (206,455)	6,611 (1,837 pyeong)	120,106	3,533
Pyongyang City	31	216,855 (207,202)	6,994 (2,115 pyeong)	154,896	4,997
Kangwon Province	30	100,362 (101,817)	3,345 (1,012 pyeong)	59,797	1,993
Chagang Province	27	82,268 (63,572)	3,047 (922 pyeong)	44,358	1,643

¹⁹⁾ However, it should be noted that in 2016, Kaesong Special City was included in the North Hwanghae Province, so there are limitations to simple numerical comparisons.

Province	Number of Markets	Total Area (Unit: m ²) (2016)	Average Area per Market (Unit: m ² , pyeong)	Number of Stalls of the Province	Number of Stalls per Market
Nampo Special City	21	108,509 (103,061)	5,167 (1,563 pyeong)	77,506	3,691
Ryanggang Province	18	32,271 (31,499)	1,793 (529 pyeong)	17,539	974
Rasun Special City	3	21,350 (26,840)	6,710 (2,029 pyeong)	12,200	4,067
Kaesong Special City	5	23,725 (21,691)	4,745 (1,437 pyeong)	13,557	2,711
National Total	414	1,944,642* (588,254 pyeong)		1,153,722	
Province Average	31.8*	149,588*	4,697** (1,420 pyeong)	88,748*	2,787**

* average per province, **average per market

- Assuming one vendor per stall, the total number of vendors at official markets in North Korea amounted to 1,153,722.
 - However, the figure may grow in light of the fact that stalls can operate in two shifts, and conversely, may decrease, as social distancing could have been practiced by ensuring a stall-size empty space between stalls during the COVID-19 pandemic.

C. Estimated Number of Workers at Official Markets

- The number of workers at official markets in North Korea was estimated to be about 1,160,312, combining managers at market management offices and vendors at stalls.
 - Compared to the figure of 1,099,052 in 2016, there was an increase of 61,260 people engaged in official markets.
 - There may be more workers at official markets, but they were excluded here because estimating such number is difficult.

- 1,153,22 people (Number of total stalls) + 6,590 people (Number of people at market management offices)²⁰⁾ = 1,160,312 people

- Since the estimated population of North Korea was 25,598,023 in 2022, 1,160,312 people working at official markets accounted for 4.5% of the entire population.
 - Considering vendors at the markets were mostly women, the share of women working at official markets was 8.8%.
 - The number of workers engaged in market activities is estimated to be much more than the estimate given the wide range of market fields aside from the official market themselves.
 - There are official and unofficial jobs at the official markets apart from stall vendors and workers of market management offices.

²⁰⁾ The number of workers in market management agency was calculated by assuming that there are 30 people per market in Grade 1 market, 20 people in Grade 2, 15 in Grade 3, and 10 in Grade 4 markets.

North Korea's Official Markets in 2022

