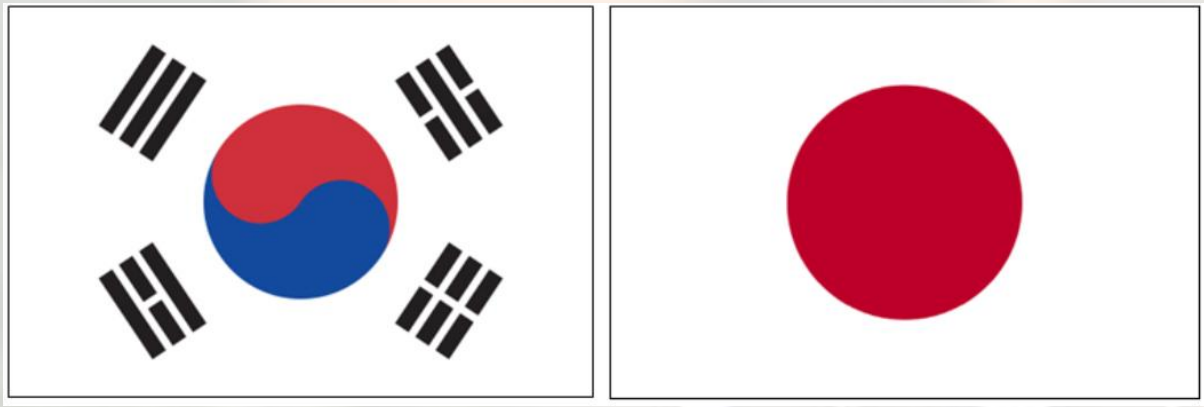
Country Report

Republic of Korea

FY 2024



Visiting Researcher Program

ADRC Japan

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Ⅰ. General Information

1. Country Name

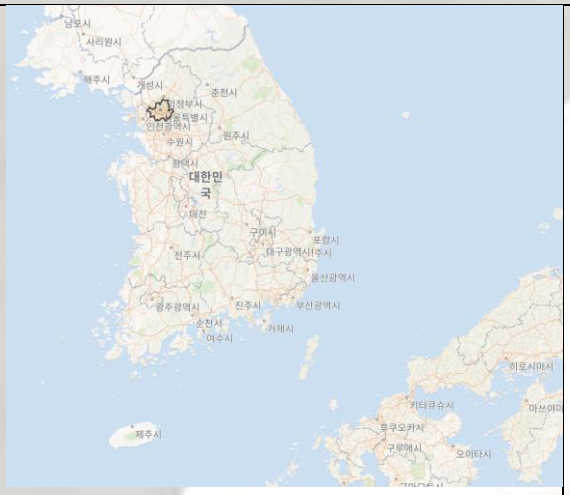
South Korea, officially the Republic of Korea (ROK), is a country in East Asia. It constitutes the southern half of the Korean Peninsula and borders North Korea along the Korean Demilitarized Zone. The country's western border is formed by the Yellow Sea, while its eastern border is defined by the East Sea.

Republic of Korea (English) 대한민국 (Korean) 大韓民國 (Chines letter) Daehanminguk (Revised Romanization of Korean)
 **Flag** 

2. Capital City

The capital of South Korea is **Seoul Special Metropolitan City**, home to a population of 9 million. In 2003, then-President Roh Moo-hyun sought to relocate the national capital of South Korea from the metropolitan city of Seoul to a new multifunctional administrative city in the center of the country. In October 2004, the Constitutional Court dealt a setback to President Roh's plans, ruling that the capital must remain in Seoul in response to a complaint filed by the main opposition, the conservative Grand National

Party. However, Sejong City is the de facto administrative capital of South Korea, and it is expected to become the official administrative capital through a constitutional amendment.

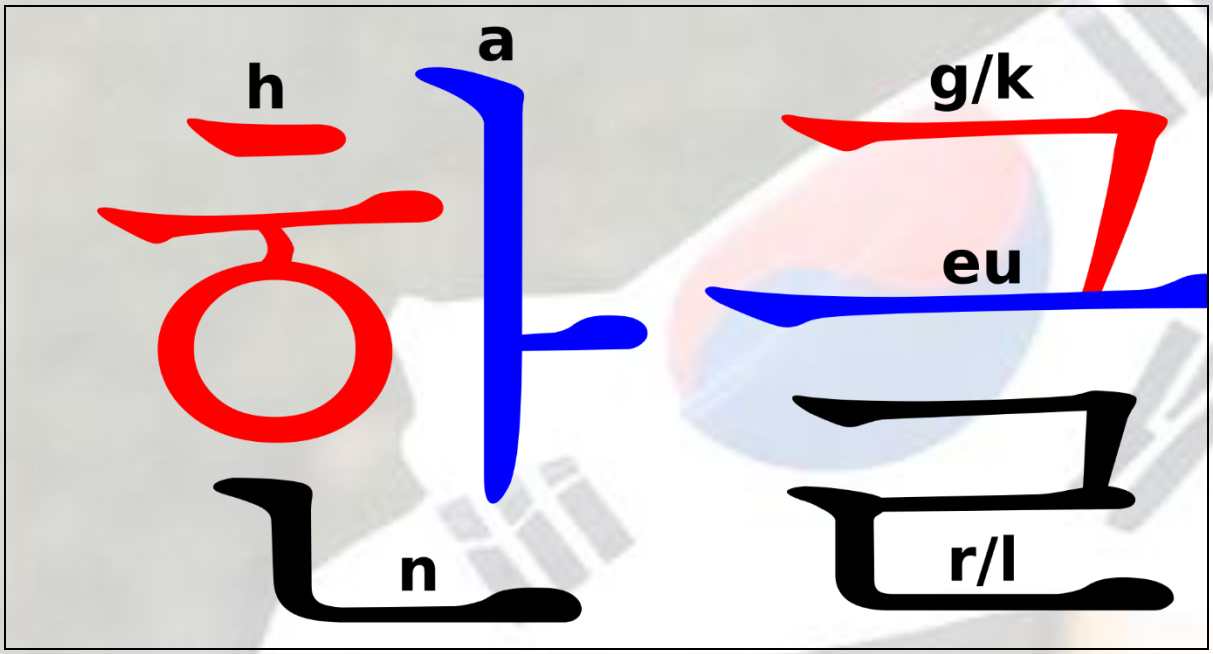
	
Seoul	SeJong

3. Official language

The official language of Korea is Korean. In Korean conversations, the age of the other person and the level of familiarity significantly influence the way people speak. When talking to someone of the same age or someone you are close to, informal language is commonly used. However, when addressing someone older or someone you are not familiar with, it is important to use formal speech.

4. Official script

The Korean alphabet, known as Hangul or Hangeul in South Korea is the modern writing system for the Korean language. The letters for the five basic consonants reflect the shape of the speech organs used to pronounce them. They are systematically modified to indicate phonetic features. The vowel letters are systematically modified for related sounds, making Hangul a featural writing system. It has been described as a syllabic alphabet as it combines the features of alphabetic and syllabic writing systems.



5. Religion

More than half of the population in South Korea does not follow any religion. The Constitution of South Korea guarantees freedom of religion. The country designates both the birth anniversaries of Jesus and Buddha as public holidays.

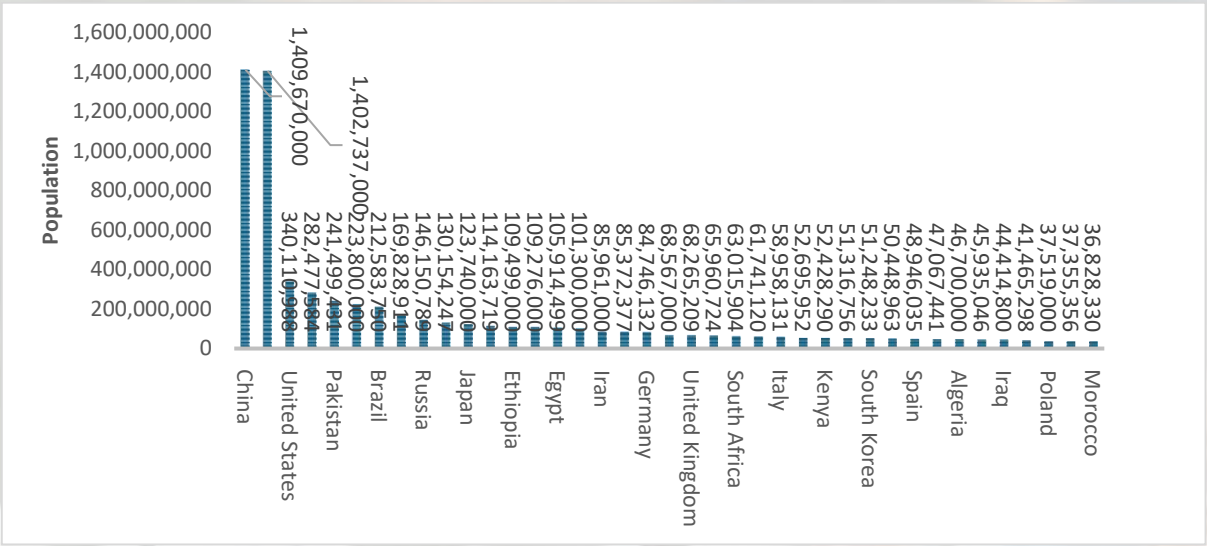
Religion (2024)	• 51% no religion • 31% Christianity • 17% Buddhism • 2% other

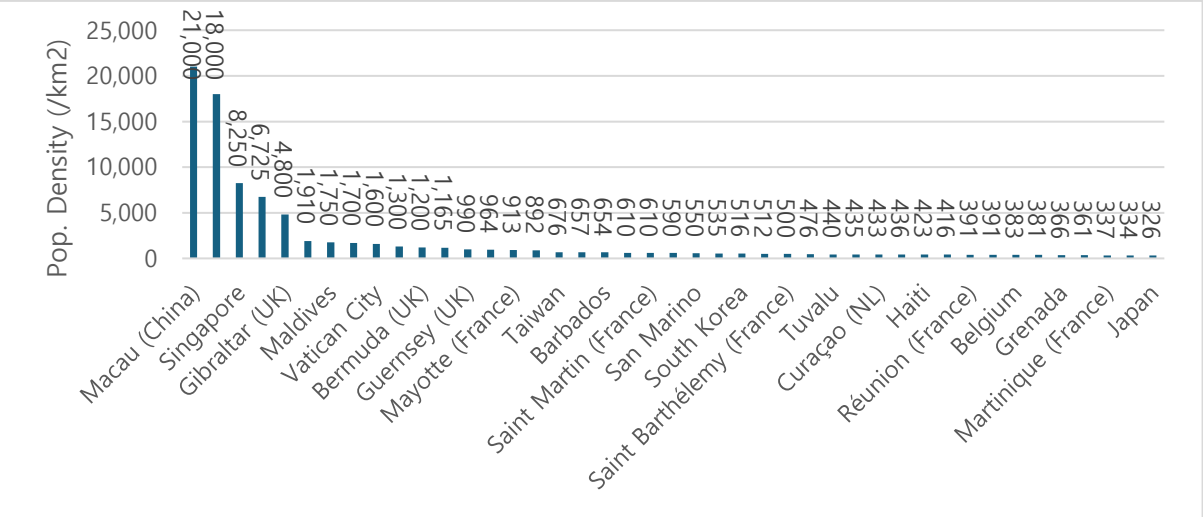
6. Government

South Korea adopts a presidential system, and the President serves as both the head of the executive branch and the head of state, holding supreme command over the armed forces.

7. Population

As of 2024, South Korea's population is 52,081,799, ranking 29th in the world. Its population density is 507 people per square kilometer, making it the 25th highest globally.





8. GDP

GDP (PPP) stands for Gross Domestic Product based on Purchasing Power Parity. South Korea's GDP (PPP) per capita is $62,960, ranking 28th in the world. GDP (nominal) per capita is $36,131, ranking 33th in the world.

GDP (PPP)	2024 estimate
• Total	▲ $3.258 trillion (14th)
• Per capita	▲ $62,960 (28th)
GDP (nominal)	2024 estimate
• Total	▲ $1.869 trillion (12th)
• Per capita	▲ $36,131 (33rd)

9. Currency

The currency of South Korea is the **won**. Due to President Yoon Suk-yeol's declaration of martial law and the subsequent political turmoil surrounding his impeachment, the value of the South Korean won has significantly declined. As of January 13, 2025, 1,000 won is equivalent to 68 cents in USD and 107 yen in Japanese currency.

10. Time zone

South Korea is in the Korea Standard Time (KST) time zone, which is UTC+9. Here are some key details about South Korea's time zone:

No Daylight Saving Time (DST): South Korea does not observe daylight saving time, so the time remains consistent throughout the year.

Standardized Time Zone: KST is 9 hours ahead of Coordinated Universal Time (UTC+9). This makes it the same as Japan Standard Time (JST) and 1 hour ahead of China Standard Time (CST).

Historical Background: Before standardizing to KST in 1961, South Korea briefly used UTC+8:30 during parts of its history. However, the shift to UTC+9 aligned it with other neighboring countries like Japan.

Practical Impact: KST is ahead of most Western countries, making it common for South

Korea to conduct international business and communications with Europe or the Americas in the evening or early morning.

11. Drive

In South Korea, vehicles drive on the right side of the road, meaning the driver's seat is on the left side of the car. Here are some additional points about South Korea's driving system:

Driving Side: South Korea follows the right-hand traffic system, which is standard in many countries, including the United States and most of Europe.

Historical Influence: This system was influenced by the United States during the post-Korean War period, aligning South Korea's traffic system with that of its ally.

Traffic Laws and Signs: Traffic laws are strictly enforced, and road signs are typically written in both Korean and English, making navigation easier for foreign drivers.

Comparison with Neighboring Countries: While South Korea drives on the right, neighboring Japan drives on the left, which can cause confusion for travelers moving between the two countries.

Ⅱ. Overview of Disasters

1. Natural and Social Disasters

Disaster management in South Korea is based on the Framework Act on the Management of Disasters and Safety. This law categorizes disasters into natural disasters and social disasters, with specific examples for each:

Natural Disasters: These include typhoons, heavy rain, heatwaves, cold waves, earthquakes, and similar events caused by natural phenomena.

Social Disasters: These cover incidents such as fires, collapses, explosions, traffic accidents, and infectious diseases, which arise from human activities or societal conditions.

The law establishes a comprehensive system for disaster prevention, response, and recovery, emphasizing coordination among government agencies and the protection of citizens' safety. It provides the legal framework for defining responsibilities and creating plans to handle both types of disasters effectively.

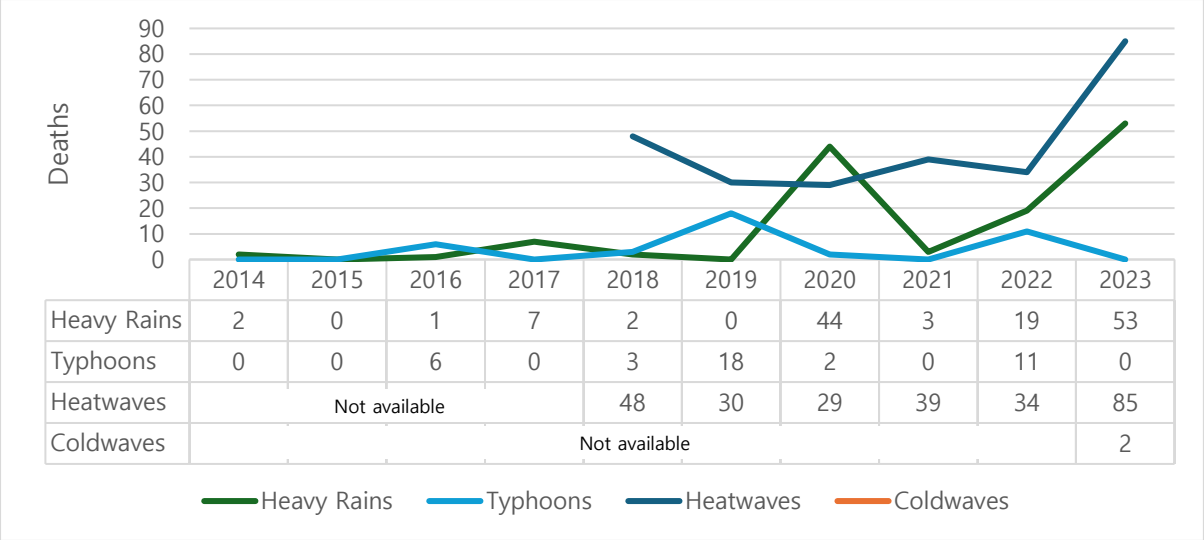
2. Natural Disasters

South Korea has been compiling statistics on fatalities related to heatwave disasters since 2018 and on fatalities related to cold wave disasters since 2023. Based on the number of deaths by disaster season, the highest fatalities occur during the heatwave season, followed by deaths caused by landslides and floods during the heavy rain season. Next are fatalities caused by strong winds, floods, and landslides during the typhoon season. In 2023, the number of deaths recorded during the cold wave season was two.

A 31-year-old worker at a Costco outlet in Hanam, Gyeonggi Province, died of heatstroke after organizing shopping carts in the sweltering parking lot all-day last week. (June 29, 2003)

Since this incident, the Korean government has issued the "Heat-Related Illness Prevention Guide" to prevent heat-related illnesses such as heatstroke and heat

exhaustion among workers. It requires workplaces to implement the guidelines.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Heavy Rains	2	0	1	7	2	0	44	3	19	53
Typhoons	0	0	6	0	3	18	2	0	11	0
Heatwaves	Not available				48	30	29	39	34	85
Coldwaves	Not available									2

Figure 1 Number of Deaths by Category of Natural Disaster Seasons in Korea

Guidelines on prevention of heat-related illness in summer heatwave

1. Follow the three basic rules

	Outdoor workplace	Indoor workplaces
Water	Provide cool and clean water / Drink water regularly during work	Water
Shade	Provide shade (rest area) near the workplace Shade canopies should be located in areas that allow cool breezes to pass through Install additional mobile air conditioners if needed	Wind Install temperature and humidity meters in the workplace and check them regularly Install fans and mobile air conditioners and ventilate regularly Managing indoor temperature even when working at night
Breaks	Provide regular breaks of at least 10 to 15 minutes when a heat advisory (caution, alarm) is issued Minimize outdoor work during peak heat hours (14~17)	Breaks

2. Responding heatwaves

Suspension of work by employers or workers if there is an imminent danger of heat-related illness

Warning or heat alarm
Sensory temperature of 35℃ or higher
- Provide 15-minute breaks every hour
- Suspension of work outdoors except when it is unavoidable during heatwave timeslot

Danger or heat alarm
Sensory temperature of 38℃ or higher
- Provide 15-minute breaks every hour
- Suspension of work outdoors except for disaster and safety management work during heatwave timeslot

Common conditions
Sensory temperature of 31℃ or higher
- Providing heatwave information to workers
- Provide cool water and shade (rest areas), and breeze
- Provide cooling equipment such as cooling arm sleeves, etc.
- Management of high-intensity workers and sensitive groups

Check sensory temperature with QR code

Caution or heat advisory
Sensory temperature of 33℃ or higher
- Provide 10-minute breaks every hour
- Reduce or adjust outdoor work time during heatwave timeslot

3. Measures in case of heat-related illness

Call 119 immediately in case of heat-related illness ⊕ Contact in case of emergency – –

2024-산업보건실-280

Ministry of Employment and Labor KOSHA

3. Social Disasters: Fires

Over the past 10 years, the number of fire-related deaths in South Korea is shown in Figure 2. There is no clear downward trend in the number of fatalities. To assess whether this number is relatively high or low, let's compare it with data from other countries. Figure 3 shows the number of fire-related deaths per 100,000 people in major countries as of 2021. South Korea's rate is 0.6, which is higher than Japan's 0.5 but lower than the United States' 0.7, indicating that South Korea's figure is relatively moderate.

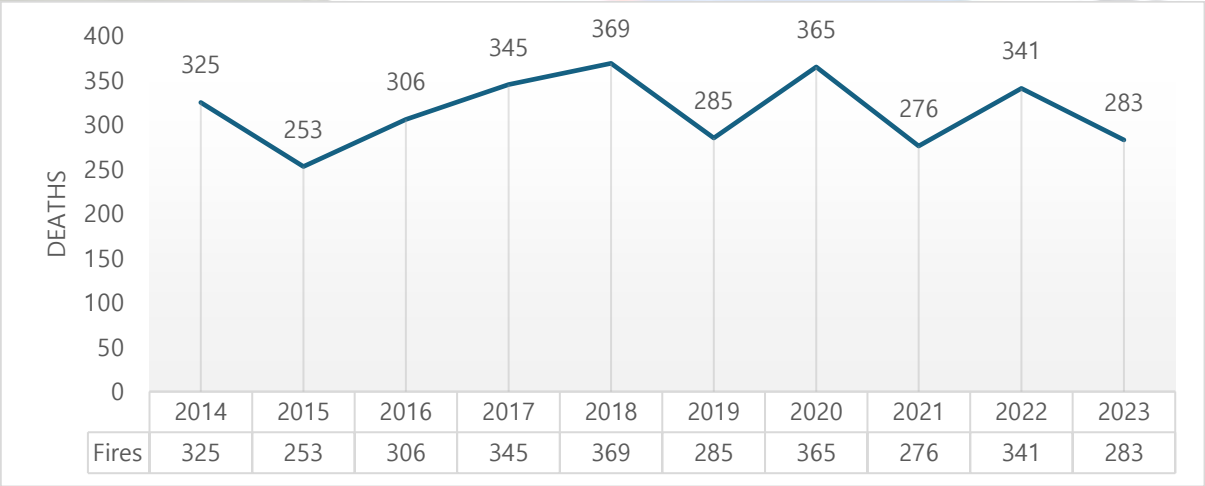
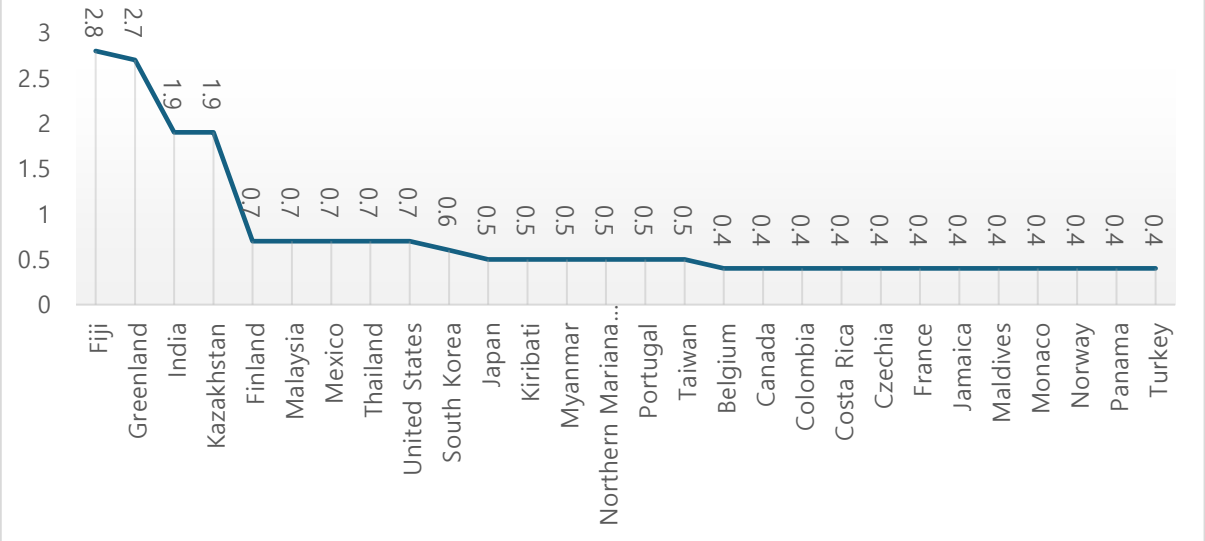


Figure 2 Number of Deaths by Fires in Korea



Source, https://ourworldindata.org/grapher/fire-death-rates?tab=table

Figure 3 Estimated annual number of deaths due to fire, heat and hot substances per

100,000 people as of 2021.

4. Social Disasters: Road Accidents

Figure 4 shows the number of deaths from road accidents over the past 10 years, revealing a consistent decline in fatalities. Figure 5 presents the number of road accident fatalities per 100,000 people in major OECD countries. South Korea has a rate of 5.3, which is approximately double that of Japan (2.6) and slightly lower than Türkiye's rate. This indicates that while South Korea has made progress in reducing road accident fatalities, there is still room for improvement when compared to other OECD nations.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Road accidents	4,762	4,621	4,292	4,185	3,781	3,349	3,081	2,916	2,735	2,551

Figure 4 Number of Deaths by Road Accidents in Korea

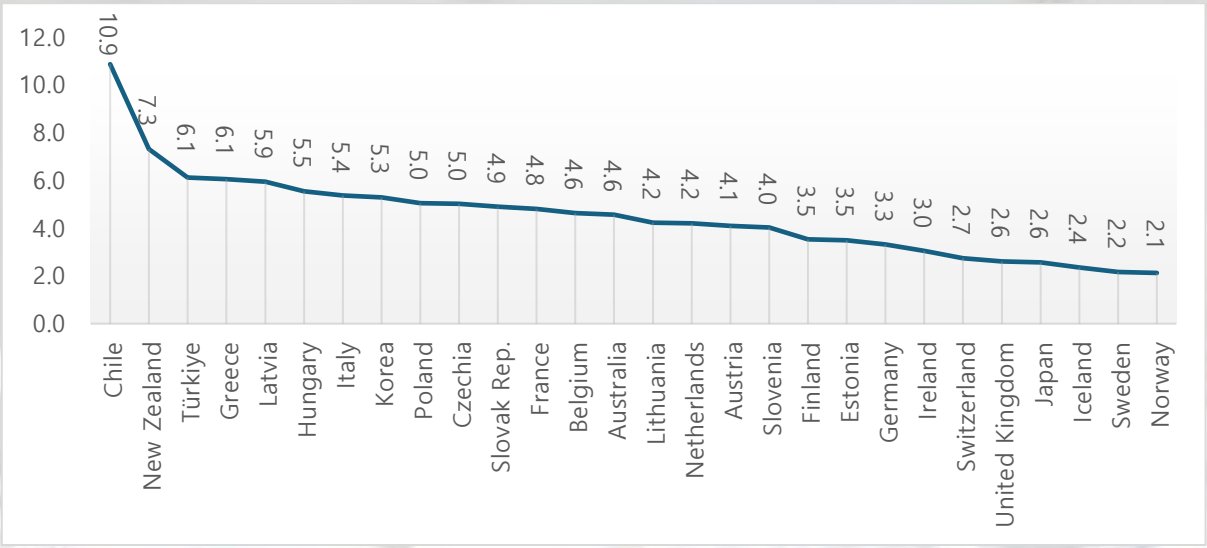


Figure 5 Deaths by Road Accidents, Per 100,000 inhabitants, 2022 (Source, OECD)

On July 17, 2016, a tragic accident occurred near the entrance of the Bongpyeong Tunnel on the Yeongdong Expressway in South Korea. A large bus, driven by a drowsy driver, caused a major crash, resulting in 4 fatalities and 37 injuries. This incident highlighted the serious dangers of drowsy driving and prompted the South Korean government to implement various preventive measures:

Improved Working Conditions for Drivers: Limiting Working Hours: The government reduced excessive working hours for bus drivers by revising labor regulations. Specific limits on working hours were introduced to ensure drivers have sufficient rest.

Extended Rest Periods: Bus drivers were required to have longer rest periods between shifts, increasing the minimum rest time from 8 hours to at least 10 hours.

Mandatory Advanced Safety Systems: To prevent accidents caused by drowsiness, buses were required to install advanced safety devices, such as:

Lane Departure Warning Systems (LDWS): Alerts the driver when the vehicle veers out of its lane.

Forward Collision Warning Systems (FCWS): Warns the driver of potential collisions with vehicles ahead.

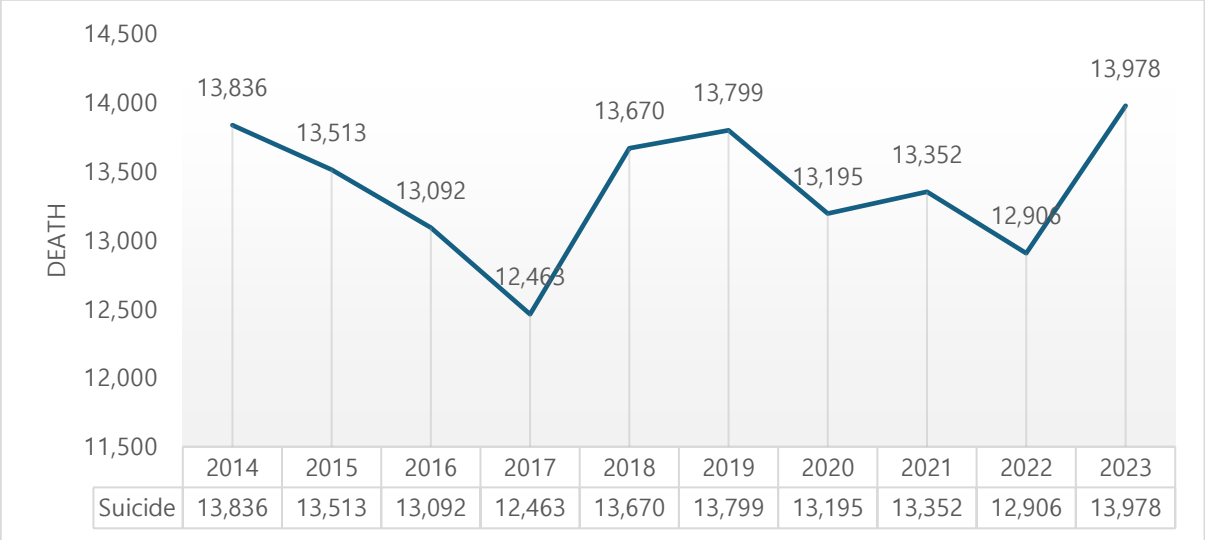
Automatic Emergency Braking Systems (AEBS): Automatically applies brakes if a collision is imminent.

Better Driving Environment: Rest Stops and Drowsy Shelters: The government expanded

rest areas and designated "drowsy driving shelters" along highways to provide safe spaces for drivers to rest.

5. Social Disasters: Suicides

Figure 6 illustrates the number of deaths by suicide, showing little indication of a declining trend. Figure 7 compares suicide rates per 100,000 people in major OECD countries. While Japan's suicide rate is relatively high at 15.1, South Korea's rate is even more alarming at 24.1, ranking the highest in the world. This highlights the severe social issue of suicide in South Korea and the urgent need for effective interventions.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Suicide	13,836	13,513	13,092	12,463	13,670	13,799	13,195	13,352	12,906	13,978

Figure 6 Number of Deaths by Suicide in Korea

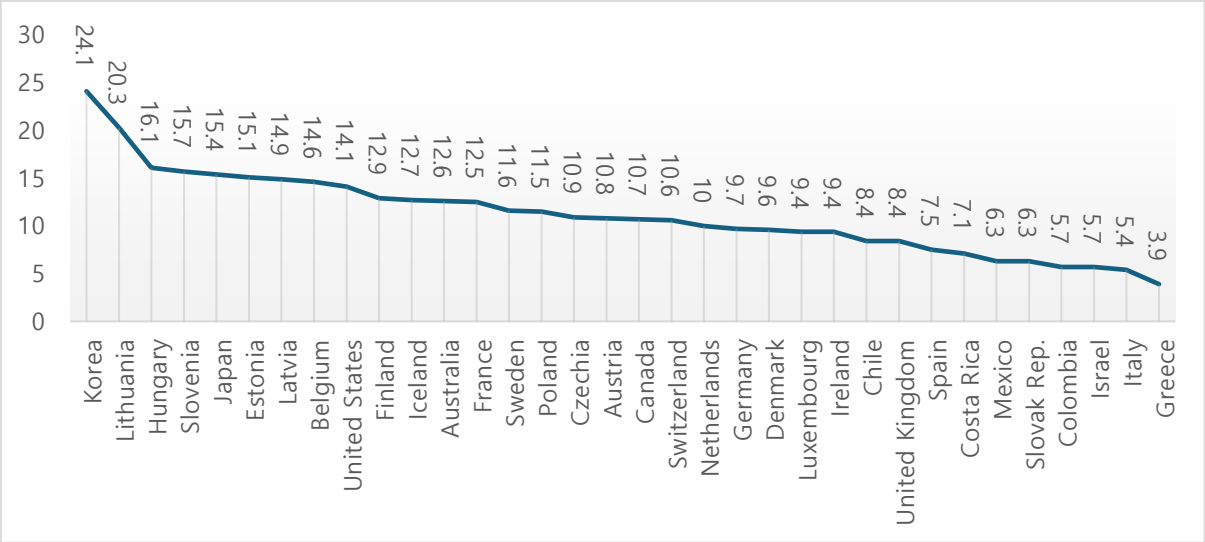
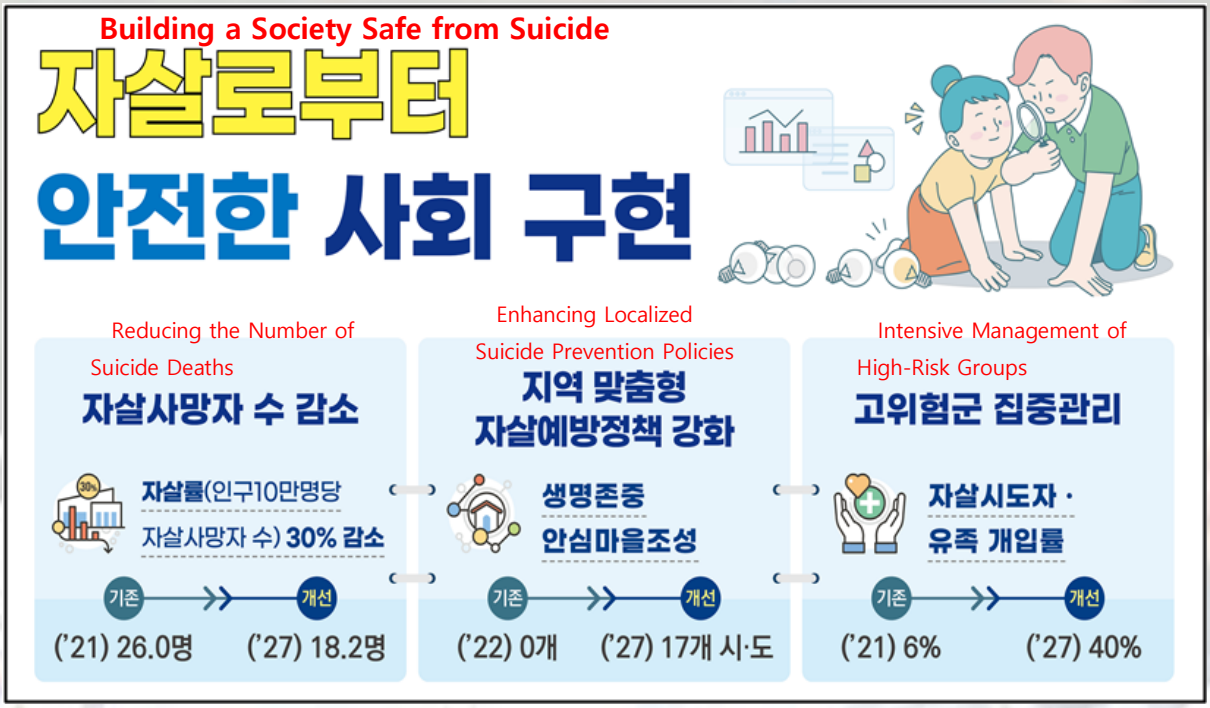


Figure 7 Deaths by suicides per 100 000 inhabitants, 2020 (Source, OECD)

The Act for Suicide Prevention and the Promotion of a Culture of Respect for Life was enacted in 2012 to address and reduce suicide rates. Under this Act, the 5th Basic Plan for Suicide Prevention (2023–2027) is currently being implemented



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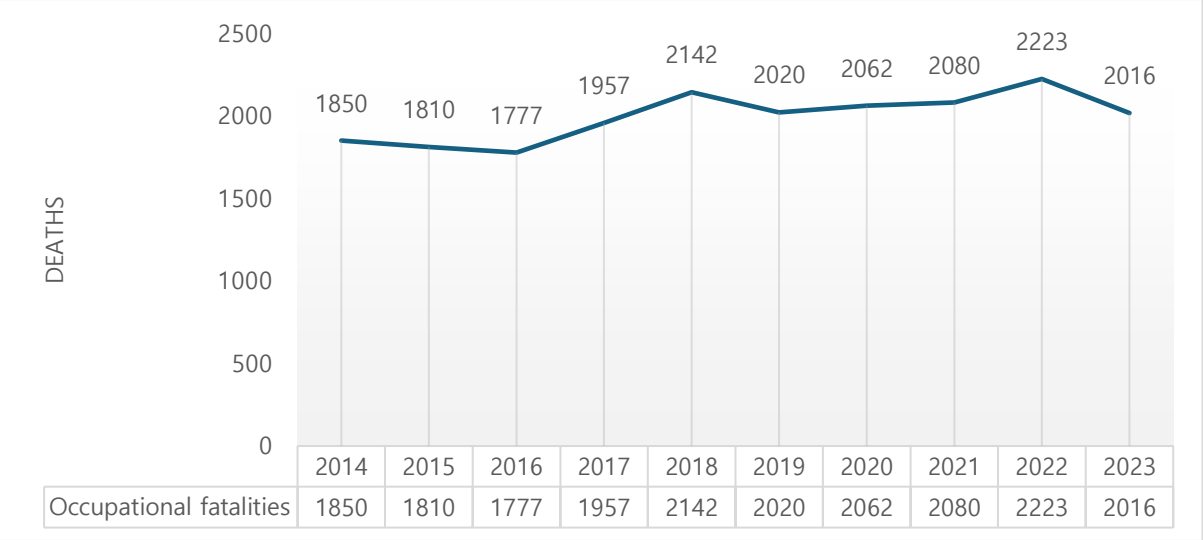
6. Social Disasters: Workplace Accidents

Figure 8 shows the number of workplace fatalities due to industrial accidents in South Korea over the past 10 years, with approximately 2,000 deaths occurring annually. Figure 9 presents the number of industrial accident fatalities per 100,000 workers in major countries. South Korea records a significantly high rate of 9.8, compared to 6.3 in Türkiye, 3.8 in Malaysia, and 1.5 in Japan. This indicates that South Korea's industrial accident fatality rate is among the highest, highlighting a critical area for improvement in workplace safety.

To reduce fatalities caused by industrial accidents, the Serious Accident Punishment Act was implemented in 2022. Korea's Serious Accident Punishment Act was modeled after the UK's Corporate Manslaughter and Corporate Homicide Act.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Occupational fatalities	1850	1810	1777	1957	2142	2020	2062	2080	2223	2016

Figure 8. Occupational Fatalities in Korea

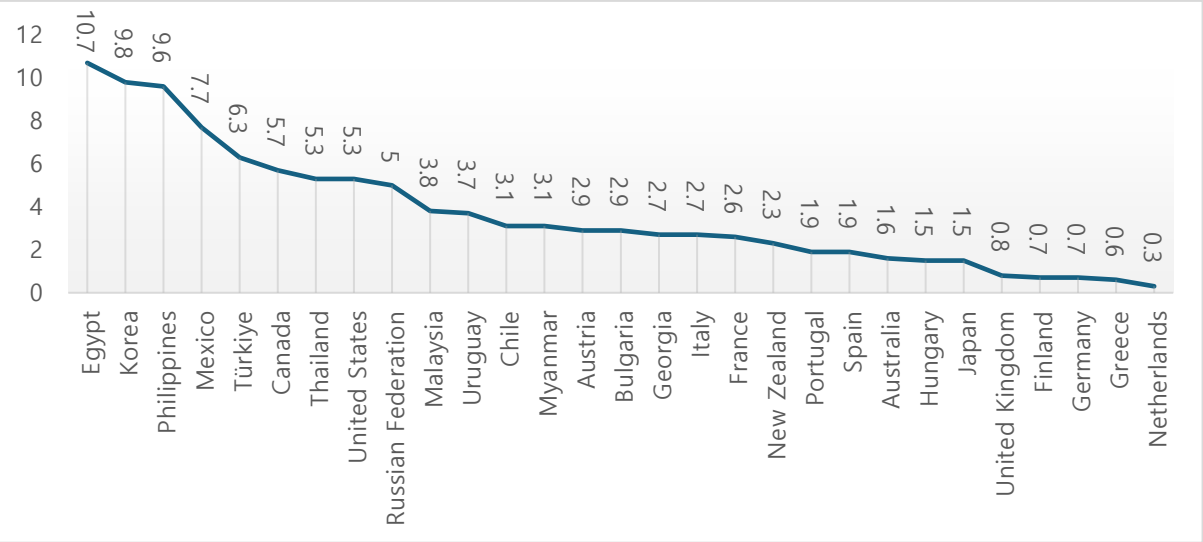


Figure 9 Occupational fatalities per 100'000 workers, 2023 (Source, ILO)

7. Great National Challenge

Although fertility rates are not directly related to disasters, South Korea considers its low fertility rate one of the greatest national challenges. Figure 10 illustrates South Korea's fertility rates over the past 10 years, showing a consistent decline, with the rate dropping to 0.72 in 2023. Figure 11 compares fertility rates among OECD countries, revealing that South Korea is the only country with a fertility rate below 1. This underscores the severity of South Korea's low fertility rate and the urgent need for solutions to address this critical issue.

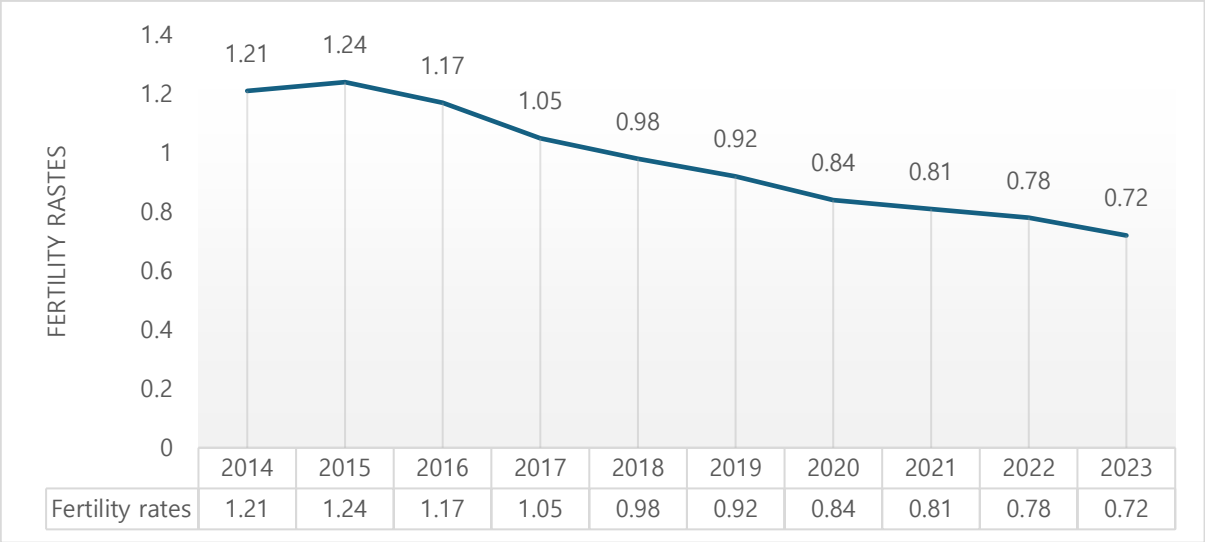
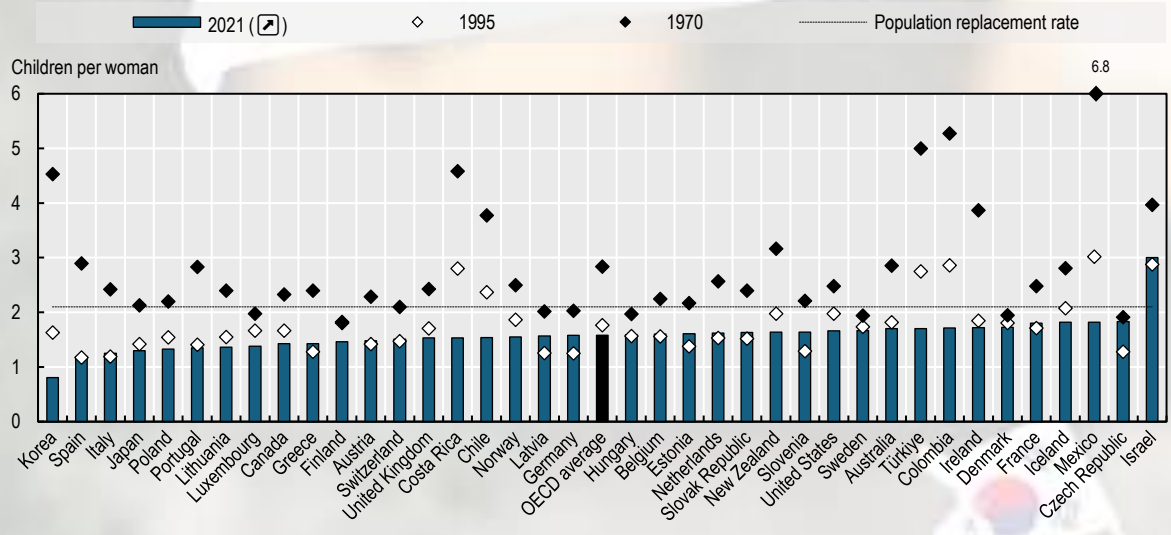


Figure 10 Fertility rates in Korea



Source, OECD Family Database, oe.cd/fdb, SF2.1. Fertility rates

Figure 11 Total fertility rate, 1970, 1995 and 2021
(Average number of children born per woman over a lifetime given current age-specific fertility rates and assuming no female mortality during reproductive years)

Korea has plans to support childbirth at both the national and corporate levels. If you have a baby, the government provides congratulatory funds (200,000 yen), parental benefits (100,000 yen per month for the first year, 50,000 yen per month for the second

year), and a child allowance (10,000 yen per month for up to 8 years). In my case, my company also offers congratulatory funds: 200,000 yen for the first baby, 500,000 yen for the second, and 1,000,000 yen for the third and subsequent children. Some companies even provide as much as 10,000,000 yen to celebrate the birth of a baby.

A South Korean firm is offering to pay its workers $75,000 each time they have a baby

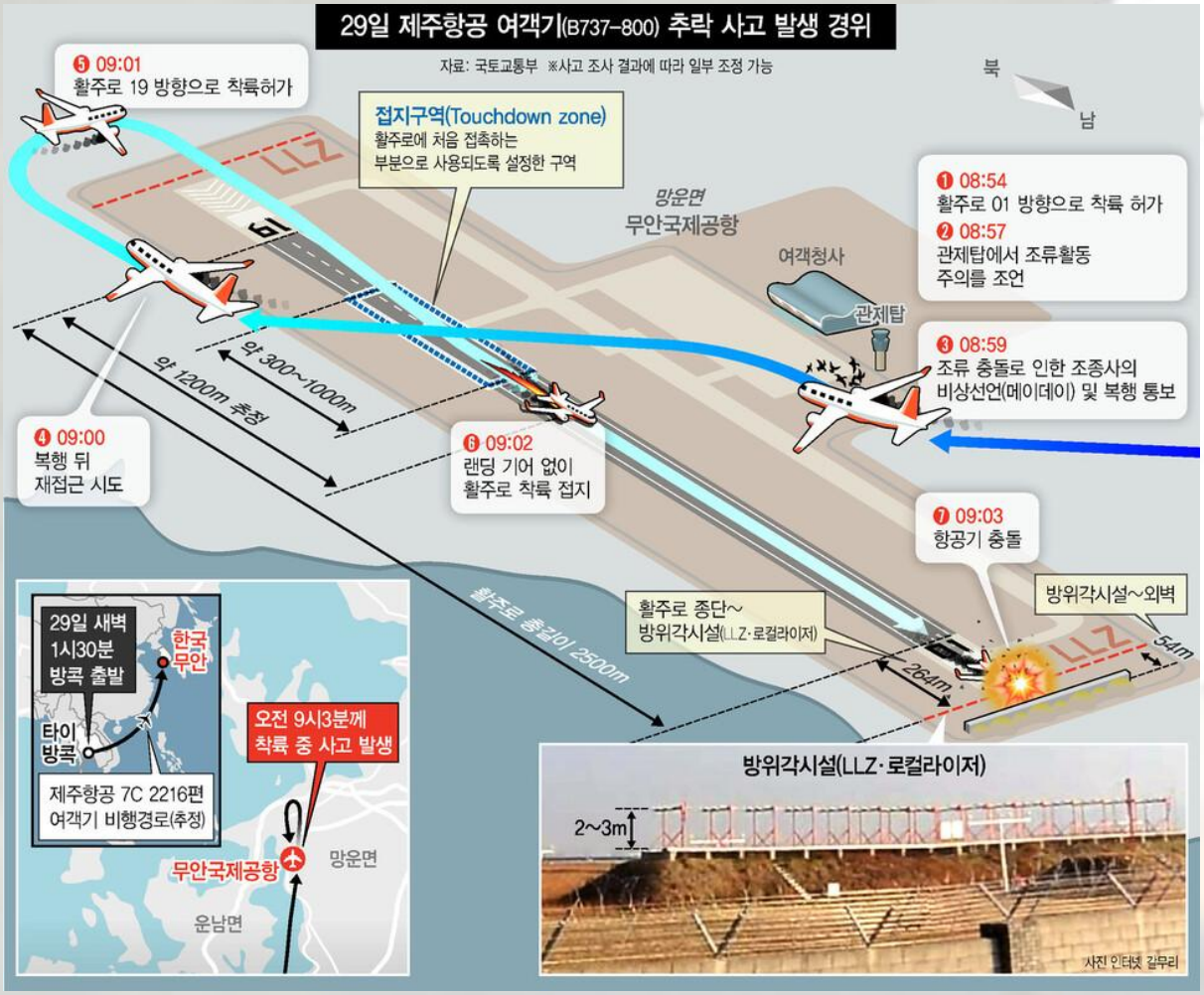
By Gawon Bae, CNN

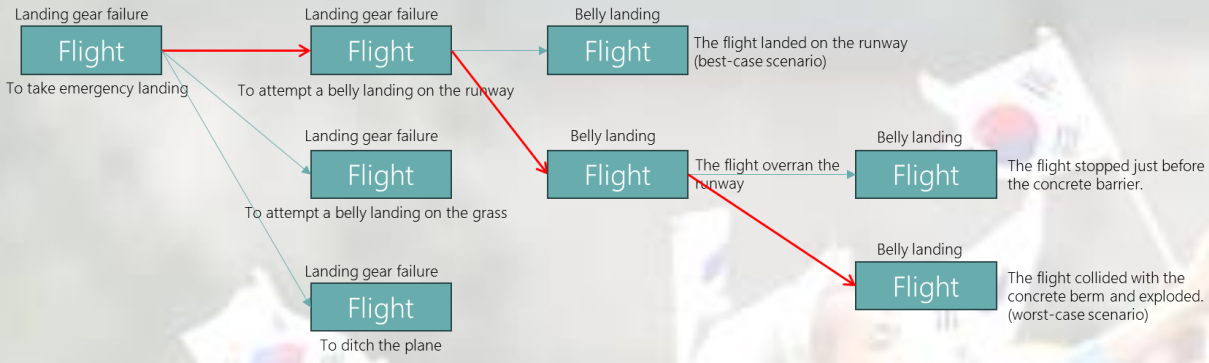
2 minute read · Updated 5:47 AM EST, Tue February 6, 2024

Ⅲ. Recent Major Disasters

1. Jeju Air Flight 2216 (29 December 2024)

Jeju Air Flight 2216 was a scheduled international passenger flight operated by Jeju Air from Suvarnabhumi Airport in Bangkok, Thailand, to Muan International Airport in Muan County, South Korea. On 29 December 2024, the Boeing 737-800 operating the flight was approaching Muan, when a bird strike occurred. The pilots issued a mayday alert, performed a go-around, and on the second landing attempt, the landing gear did not deploy and the airplane belly landed well beyond the normal touchdown zone. It overran the runway and crashed into a berm encasing a concrete structure that supported an antenna array for the instrument landing system. The collision killed all 175 passengers and 4 of 6 crew members. The surviving 2 cabin crew were seated in the rear of the plane, which detached from the fuselage, and were rescued with injuries.





The flight experienced a landing gear failure, forcing the crew to perform an emergency landing. They had three options: attempt a belly landing on the runway, on the grass, or in the sea. They decided to attempt a belly landing on the runway, hoping the airplane

would land safely. However, the flight overran the runway, collided with a concrete berm, and eventually exploded. This scenario highlights the countless possibilities that can unfold. The progression of a disaster is determined by the actions you take, which is why it's crucial to make appropriate decisions.

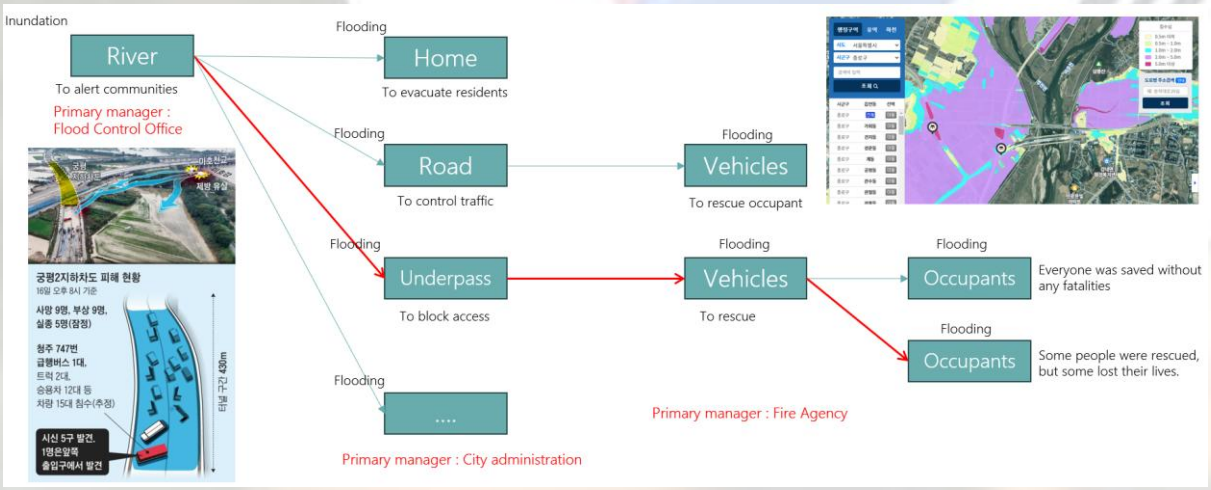
2. Cheongju Underpass Flooding Accident (15 July 2023)

On July 15, 2023, a tragic flooding incident occurred at the Gungpyeong 2 Underpass in Cheongju, resulting in the deaths of 14 individuals. Although the Flood Control Office, responsible for managing the nearby river, had issued a flood warning, the Cheongju municipal government, which oversees the underpass, took no action in response.

Several hours after the flood warning was issued, the river overflowed its banks, inundating the underpass. The sudden flooding trapped 17 vehicles inside, and rescue efforts later uncovered the bodies of 14 victims within the submerged underpass.

In the Cheongju underpass flooding accident, the river was on the verge of inundation. The Flood Control Office alerted the city administration and neighboring communities,

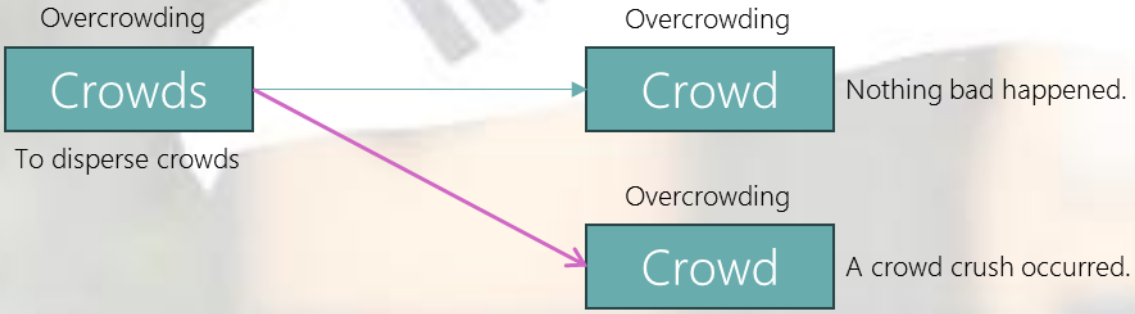
prompting the city administration to evacuate residents in flood zones. However, they failed to anticipate that the underpass would be flooded. As a result, they did not block access to the underpass early enough, leading to 17 vehicles being submerged and 14 people losing their lives. If they had anticipated the situation, they could have taken early action, potentially saving the lives of the 14 victims. I'm sorry they failed to imagine this situation. After this accident, the Flood Control Office marked underpasses on the flood maps.



3. Seoul Halloween crowd crush (29 October 2022)

On 29 October 2022, around 22:20, a crowd surge occurred during Halloween festivities in the Itaewon neighborhood of Seoul, South Korea, killing 159 people and wounding 196 others. The death toll includes two people who died after the crush. The victims were mostly young adults; 27 of the victims were foreign nationals.

If overcrowding is likely to occur, the police must disperse the crowds. However, they did not do so and even made the overcrowding worse. They instructed the on-site police officers to 'prevent the crowd from entering the roadway.'



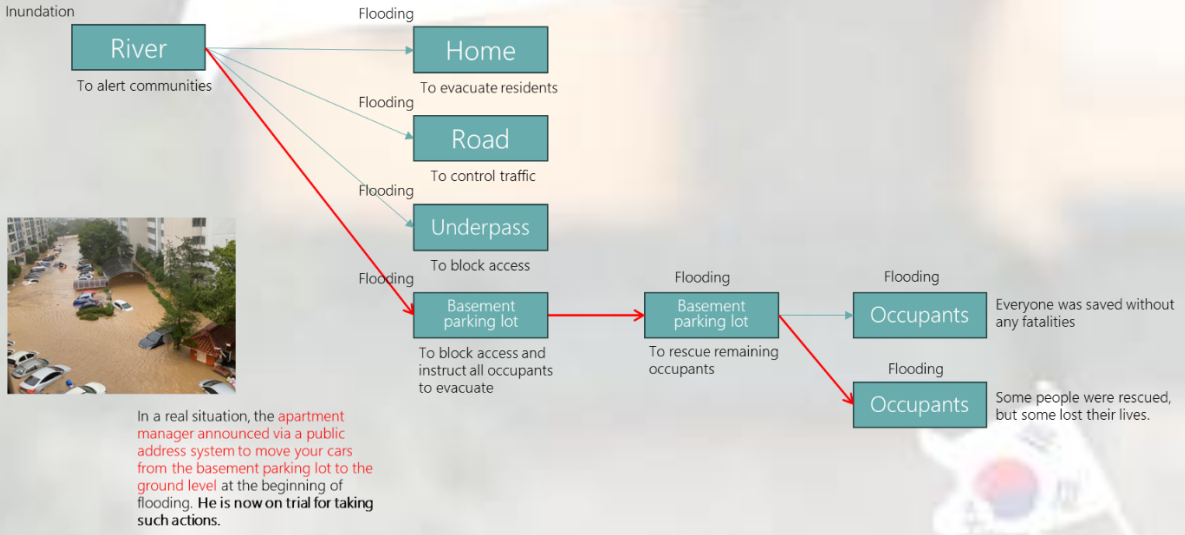
4. Pohang Apartment Underground Parking Lot Flooding Accident (6 September 2022)

On September 6, 2022, a tragic accident occurred in the underground parking lot of an apartment complex in Indeok-dong, Nam-gu, Pohang, Gyeongsangbuk-do, South Korea. The parking lot was flooded due to the impact of Typhoon Hinnamnor (Typhoon No. 11).

As the nearby Naengcheon Stream overflowed, the underground parking lot became inundated. During the flooding, nine residents entered the parking lot to retrieve their vehicles. Tragically, seven of them were found deceased, while two survivors were rescued.

Most of the bodies were discovered near the entrance doors. According to fire safety

regulations, swing doors are required to open in the direction of egress. However, in cases like this incident, where the area in the direction of the exit is the first to become flooded, the structural design of swing doors makes it impossible to open them under such conditions. For this reason, most victims were found near the exits.



The river manager did not alert the neighboring communities, so the apartment manager did not have an adequate understanding of the situation. For this reason, the apartment manager announced via the public address system that residents should move their cars from the basement parking lot to the ground level at the beginning of the flooding. He is now on trial for taking such actions.

IV. Disaster Management System

1. Legal System

1.1 Framework Act on Disaster and Safety Management

Purpose: Establishes the overarching guidelines for disaster management in South Korea, covering prevention, preparedness, response, and recovery.

Key Provisions:

Defines roles and responsibilities of government organizations for disaster management.

Focuses on all-hazard preparedness, including both natural and man-made disasters.

Mandates the development of disaster response plans and public awareness programs.

1.2 Countermeasures Against Natural Disasters Act

Purpose: Focuses specifically on mitigating the impacts of natural disasters, such as typhoons, floods, landslides, and droughts, through proactive planning and response measures.

Key Provisions:

Designation and management of disaster-prone areas.

Development of infrastructure to reduce disaster risks (e.g., flood control dams, embankments).

Requirements for local governments to conduct risk assessments and implement disaster response systems.

Monitoring and early warning systems for weather-related disasters.

1.3 Earthquake and Volcano Disaster Countermeasures Act

Purpose: Provides a specialized legal framework to address the unique risks associated with earthquakes and volcanic activities.

Key Provisions:

Establishment of a national earthquake and volcano monitoring network.

Implementation of seismic design standards for buildings and infrastructure.

Development of evacuation plans and response protocols for earthquake and volcanic disasters.

Public education and drills for earthquake and volcano preparedness.

Significance: South Korea has a relatively low frequency of earthquakes and volcanic eruptions compared to neighboring countries like Japan, but recent seismic events have prompted the need for stronger measures.

1.4 Fire Services Act

Purpose: Governs fire prevention and firefighting services, including rescue and emergency medical services.

Key Provisions:

Defines the roles of firefighters and the responsibilities of public and private entities.

Regulates fire safety inspections and enforcement of fire prevention measures.

Mandates fire safety compliance for buildings, factories, and public spaces.

1.5 Act on Fire Prevention, Installation, and Maintenance of Firefighting Facilities

Purpose: Ensures that firefighting equipment and facilities are properly installed and maintained in all types of structures.

Key Provisions:

Requires specific firefighting systems for different building types.

Establishes standards for maintaining fire alarms, sprinklers, and extinguishers.

Provides penalties for non-compliance with fire safety regulations.

1.6 Hazardous Materials Safety Management Act

Purpose: Focuses on preventing accidents related to the handling and storage of hazardous materials, such as chemicals and flammable substances.

Key Provisions:

Sets safety standards for storing and handling hazardous substances.

Requires facilities handling hazardous materials to appoint safety managers.

Enforces strict licensing and inspection protocols for hazardous material facilities.

2. Organizations in Disaster Management

2.1 Prevention

Purpose: Reduce the likelihood of disasters and minimize their potential impacts through proactive measures.

Key Organizations and Roles:

- Ministry of the Interior and Safety (MOIS):
- Develops national disaster prevention policies.
- Identifies and manages disaster-prone areas.
- Ministry of Land, Infrastructure, and Transport (MOLIT):
- Implements seismic design standards for buildings and infrastructure.
- Integrates disaster prevention into urban planning.
- Ministry of Environment:
- Manages flood risks and prevents landslides.
- Develops policies to address climate change and environmental risks.
- Local Governments:
- Conduct safety inspections of disaster-prone areas.
- Ensure compliance with fire prevention and hazardous material regulations.

2.2 Preparedness

Purpose: Prepare for potential disasters by establishing systems and training to respond effectively when they occur.

Key Organizations and Roles:

- National Fire Agency:
  - Conducts training for firefighting, rescue, and emergency medical services.
  - Performs simulations for emergency responses.
- Korea Meteorological Administration (KMA):
  - Operates early warning systems for weather-related events, including typhoons, floods, and heatwaves.
  - Monitors seismic and volcanic activities.
- Flood Control Office:
  - Role: Monitors river and dam water levels to predict and issue flood warnings.
  - Provides real-time data to local governments and the public for flood preparedness.
- Korea Forest Service:
  - Role: Issues landslide alerts based on rainfall, topography, and soil conditions.
  - Oversees reforestation and preventive construction projects to mitigate landslide risks.
- Local Governments and Fire Stations:
  - Designate and manage evacuation shelters.
  - Create disaster response manuals and conduct community education programs.
- Red Cross and Non-Governmental Organizations (NGOs):
  - Prepare emergency supplies and relief materials.
  - Provide disaster preparedness training and public awareness campaigns.

2.3 Response

Purpose: Act immediately after a disaster to save lives, protect property, and minimize damage.

Key Organizations and Roles:

- Central Disaster and Safety Countermeasures Headquarters (CDSCH):

- Coordinates nationwide disaster response efforts during large-scale emergencies.
- Aligns actions between central government agencies and local governments.

- National Fire Agency and Fire Stations:
- Conduct firefighting, search-and-rescue operations, and emergency medical services.
- Respond to hazardous material accidents and large-scale disasters.

- Korean National Police Agency:
- Maintains public order, controls traffic in disaster areas, and assists with evacuation.

- Ministry of National Defense:
- Deploys military resources for rescue operations, evacuation, and infrastructure restoration in major disasters.

- Local Governments:
- Operate local disaster response centers.
- Coordinate evacuation plans and provide real-time updates to residents.

- Public Utilities (e.g., Korea Electric Power Corporation, water supply companies):
- Restore basic services like electricity and water during emergencies.
- Repair critical infrastructure promptly.

2.4 Recovery

Purpose: Restore disaster-affected areas and help communities return to normalcy through long-term recovery and rebuilding efforts.

Key Organizations and Roles:

- Ministry of the Interior and Safety (MOIS):
- Develops recovery plans and allocates national budgets for disaster relief.
- Coordinates recovery efforts between central and local governments.

- Local Governments:
- Assess damage and provide financial or housing support to affected residents.
- Oversee the rebuilding of disaster-stricken communities and public infrastructure.

- Ministry of Land, Infrastructure, and Transport (MOLIT):
- Restores roads, bridges, and other critical infrastructure.
- Implements sustainable rebuilding measures, including disaster-resistant construction.

- Ministry of Environment:
  - Restores ecosystems and cleans up environmental damage caused by disasters.
  - Monitors and manages post-disaster environmental risks.
- Red Cross and NGOs:
  - Distribute relief supplies to affected residents.
  - Offer psychological support and rehabilitation programs for disaster victims.

3. Plans

We have plans at both the national and municipal levels.

3.1 National Basic Plan for Safety Management (NBPSM)

Purpose:

The NBPSM is a strategic framework developed by the South Korean government to systematically manage disaster and safety risks across the country. It aligns with the principles of disaster risk reduction (DRR) and aims to protect lives, property, and national infrastructure by coordinating efforts across all levels of government, the private sector, and the public.

Key Features:

- Comprehensive Scope:
  - The plan covers both natural disasters (e.g., typhoons, floods, earthquakes) and man-made disasters (e.g., industrial accidents, chemical spills, cyber-attacks).
  - Includes public health emergencies, such as pandemics, and environmental hazards like air pollution.
- Integrated Approach:
  - Coordinates actions across prevention, preparedness, response, and recovery (PPRR) phases.
  - Involves collaboration between national ministries, local governments, public institutions, private organizations, and citizens.
- Periodic Updates:
  - The plan is updated every five years to reflect evolving risks, new technologies, and

lessons learned from past disasters.
- Incorporates climate change projections and emerging threats like cyber-security vulnerabilities.

Key Objectives:

- Strengthen Disaster Prevention:
- Identify high-risk areas through scientific risk assessments and GIS-based mapping.
- Enforce building codes and safety standards to enhance resilience.
- Promote sustainable development to minimize environmental hazards.
- Enhance Preparedness:
- Develop early warning systems for disasters such as floods, landslides, and earthquakes.
- Conduct regular disaster drills for government agencies, schools, and local communities.
- Stockpile emergency supplies and resources for rapid deployment.
- Improve Disaster Response:
- Standardize emergency protocols to ensure a coordinated response among agencies.
- Establish a Central Disaster and Safety Countermeasures Headquarters (CDSCH) to oversee national response efforts during major disasters.
- Utilize technology, such as drones and AI, for real-time monitoring and decision-making.
- Ensure Effective Recovery:
- Provide financial and technical support for disaster-stricken areas.
- Promote sustainable rebuilding practices to reduce future risks.
- Support the psychological recovery of affected populations through counseling programs.
- Promote Citizen Engagement:
- Educate the public on disaster preparedness through campaigns, training programs, and apps.
- Encourage citizen participation in community-based disaster risk reduction (CBDRR) initiatives.

Implementation:

- Lead Agency:
  - The Ministry of the Interior and Safety (MOIS) oversees the development, coordination, and implementation of the plan.
  - Specialized agencies, such as the National Fire Agency and the Korea Meteorological Administration (KMA), play key roles in specific areas.
- Coordination Mechanisms:
  - The Central Disaster and Safety Countermeasures Headquarters (CDSCH) is activated during large-scale disasters to lead response efforts.
  - Regional disaster management committees operate at the provincial and municipal levels.
- Technology Integration:
  - Advanced technologies, such as IoT, AI, and big data analytics, are used for risk assessment, monitoring, and response.
  - Real-time disaster information is disseminated to the public through mobile apps and alert systems.

Key Components:

- Risk Identification and Assessment:
  - Analyzes national and regional disaster trends.
  - Maps high-risk zones for floods, landslides, and earthquakes.
- National Safety Goals:
  - Sets measurable targets for reducing disaster-related fatalities, economic losses, and service disruptions.
- Budget Allocation:
  - Ensures sufficient funding for disaster prevention infrastructure, emergency response equipment, and recovery programs.
- International Cooperation:
  - Collaborates with international organizations like the UN Office for Disaster Risk Reduction (UNDRR) and neighboring countries for knowledge sharing and joint risk mitigation.

- Significance:

- The NBPSM ensures a whole-of-government and whole-of-society approach to disaster management.
- It enables South Korea to be proactive rather than reactive in addressing disaster risks, focusing on prevention and preparedness to minimize human and economic losses.

3.2 Comprehensive Plan for Natural Disaster Reduction (CPNDR)

Purpose:

The CPNDR is a region-specific framework developed by local governments in South Korea to minimize the risks and impacts of natural disasters. It focuses on proactive risk assessment, infrastructure improvement, and community engagement to protect local populations, property, and ecosystems from natural hazards.

Key Features:

Localized Approach:

Tailored to the specific geographical and environmental conditions of each region.

Focuses on addressing natural disasters such as floods, typhoons, landslides, and droughts.

Long-term Planning:

The plan spans a 10-year period, with periodic evaluations and updates every five years.

Incorporates climate change projections and advanced technologies for disaster prediction and prevention.

Legal Basis:

Mandated by the Countermeasures Against Natural Disasters Act.

Developed and executed by municipal governments, with technical and financial support from the central government.

Key Objectives:

- Risk Identification and Mapping:
  - Conduct scientific assessments of regional vulnerabilities to natural disasters.
  - Create hazard maps for areas prone to flooding, landslides, and other risks to guide urban planning and resource allocation.
- Infrastructure Development:
  - Strengthen flood control systems, such as levees, reservoirs, and urban drainage networks.
  - Implement slope stabilization projects to reduce landslide risks in mountainous

areas.

- Develop drought management systems, including reservoirs and water-saving infrastructure.

- Community Protection:

- Establish evacuation routes, shelters, and safe zones in disaster-prone areas.
- Conduct public education campaigns to raise awareness about natural disaster risks and preparedness.

- Data and Technology Integration:

- Utilize geographic information systems (GIS) and satellite imagery to monitor and predict disasters.
- Integrate real-time data from weather stations, river monitoring systems, and landslide sensors.

- Environmental Conservation:

- Promote afforestation and reforestation in areas vulnerable to landslides and soil erosion.
- Implement eco-friendly flood control measures to preserve natural water flow and ecosystems.

Implementation:

- Lead Agency:

- Each municipal government is responsible for developing and implementing its own CPNDR.
- The Ministry of the Interior and Safety (MOIS) and Ministry of Land, Infrastructure, and Transport (MOLIT) provide guidance, funding, and oversight.

- Phased Approach:

- Risk Analysis Phase: Identifying vulnerabilities through data collection and analysis.
- Planning Phase: Designing mitigation strategies based on risk assessments.
- Implementation Phase: Executing projects such as infrastructure construction and public education.
- Evaluation Phase: Monitoring the effectiveness of the measures and updating the plan as needed.

- Public Participation:

- Involves residents in disaster preparedness training and decision-making processes.

- Encourages community-led initiatives for localized disaster risk reduction.

Key Components:

- Flood Risk Management:
  - Build and maintain levees, dams, and retention basins to control water flow during heavy rainfall.
  - Upgrade urban drainage systems to prevent waterlogging in cities.
- Landslide Prevention:
  - Stabilize slopes through terracing, vegetation planting, and retaining walls.
  - Monitor high-risk areas using advanced sensors and early warning systems.
- Drought Mitigation:
  - Develop water storage facilities and promote efficient irrigation systems in agricultural regions.
  - Encourage the adoption of water-saving practices in households and industries.
- Typhoon Preparedness:
  - Strengthen coastal defenses to minimize storm surges and wind damage.
  - Install emergency sirens and broadcast systems in vulnerable areas.

Ⅴ. ADRC Counterpart

1. Overview of ADRC and South Korea's Counterpart

The Asian Disaster Reduction Center (ADRC) is an international organization established to promote disaster risk reduction (DRR) and strengthen cooperation among its member countries in the Asia-Pacific region. In South Korea, the counterpart organization to the ADRC is the Ministry of the Interior and Safety (MOIS).

https://www.mois.go.kr/eng/a01/engMain.do

2. About the Ministry of the Interior and Safety (MOIS):

MOIS is the central government agency responsible for coordinating disaster and safety management across South Korea. It works closely with local governments, public institutions, and international organizations like ADRC to implement effective disaster risk reduction strategies and enhance national resilience.