

The background of the slide is a scenic photograph of a Korean mountain landscape. On the left, a dark, craggy rock face rises steeply. A few pine trees are growing from the crevices of the rock. In the center, a large, well-developed pine tree stands prominently on a rocky outcrop. The background shows more distant, misty mountain peaks under a clear sky. The overall color palette is dominated by blues, greys, and greens.

# Republic of Korea (South Korea)

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Country Report  
By Young Kyu Lee

# Disclaimer

This report was compiled by an ADRC visiting researcher (VR) from ADRC member countries.

The views expressed in the report do not necessarily reflect the views of the ADRC. The boundaries and names shown and the designations used on the maps in the report also do not imply official endorsement or acceptance by the ADRC.

# Contents

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- I . General Information
- II. Overview of Disasters
- III. Recent Major Disasters
- IV. Disaster Management System
- V . Research Plans

# Country Name

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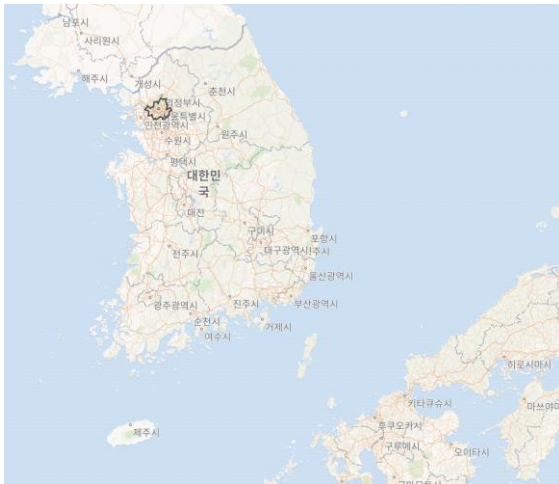
- South Korea, officially the Republic of Korea (ROK)



# Capital City

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- The capital of South Korea is Seoul, home to a population of 9 million. Sejong City is the de facto administrative capital of South Korea



Seoul



Sejong

# Official Language

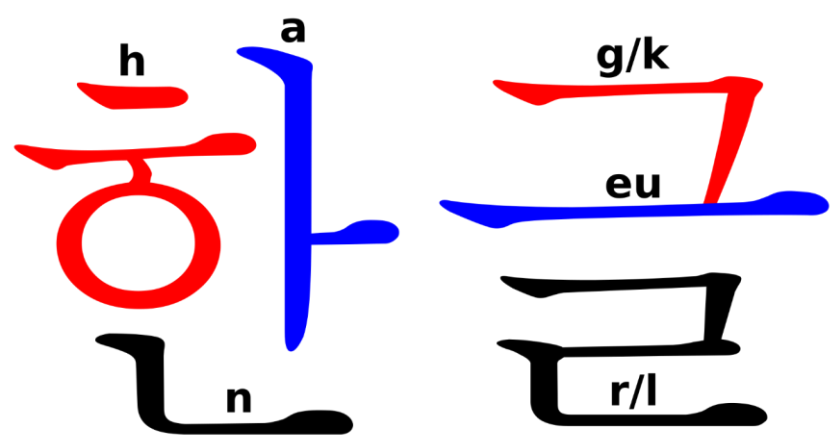
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- The official language of Korea is Korean.

Language	To my friends	To others
Korean	안녕	안녕하세요
Japanese	こんにちは	こんにちは
English	Hello	Hello

# Official Script

- The Korean alphabet, known as Hangul or Hangeul



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Tab ⇄	Q	W	E	R	T	Y	U	I	O	P	{ }	[ ]	
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I love you.  
나는 당신을 사랑합니다  
私はあなたを愛しています。  
(와타시 와 아나타 오 아이시테이마스)

# Religion

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- As of 2024
  - 51% no religion
  - 31% Christianity
  - 17% Buddhism
  - 2% other
- 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.



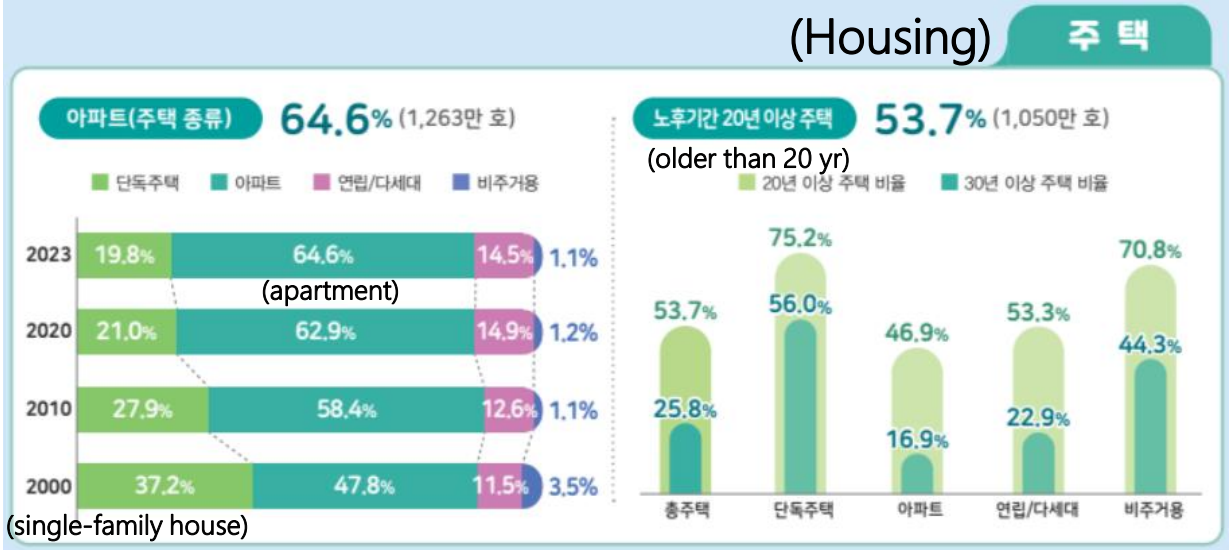
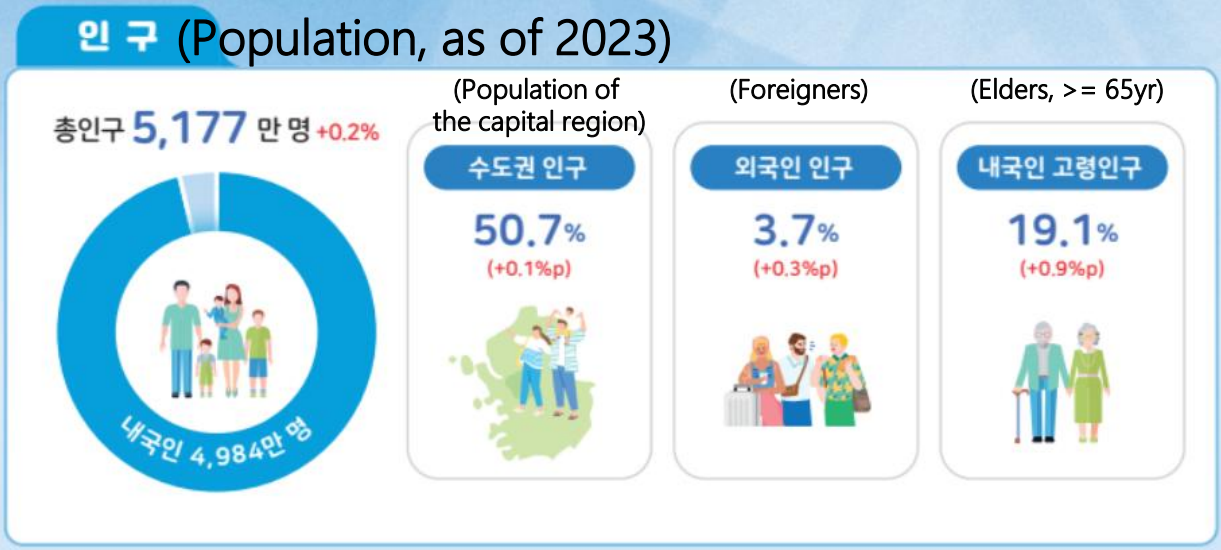
# Government

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- 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**.

# 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.



# GDP

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- 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)

# Currency

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- 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.



# Time Zone

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- 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:
  1. No Daylight Saving Time (DST): South Korea does not observe daylight saving time, so the time remains consistent throughout the year.
  2. 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).
  3. 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.
  4. 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.

# Drive

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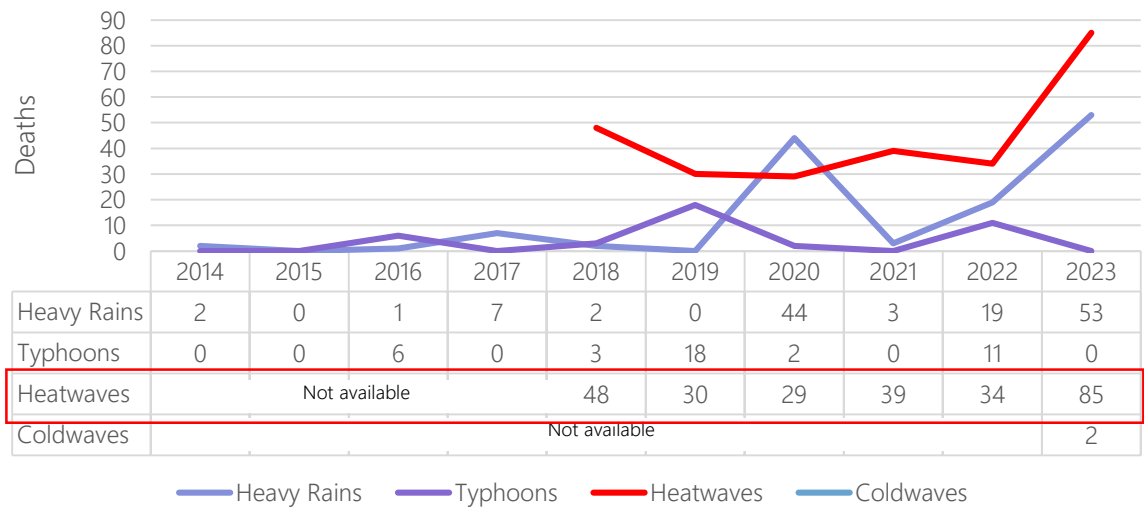
- In South Korea, **vehicles drive on the right side** of the road, meaning the driver's seat is on the left side of the car. Here are some additional points about South Korea's driving system:
  1. Driving Side: South Korea follows the right-hand traffic system, which is standard in many countries, including the United States and most of Europe.
  2. 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.
  3. 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.

# Natural 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:

man-made disasters

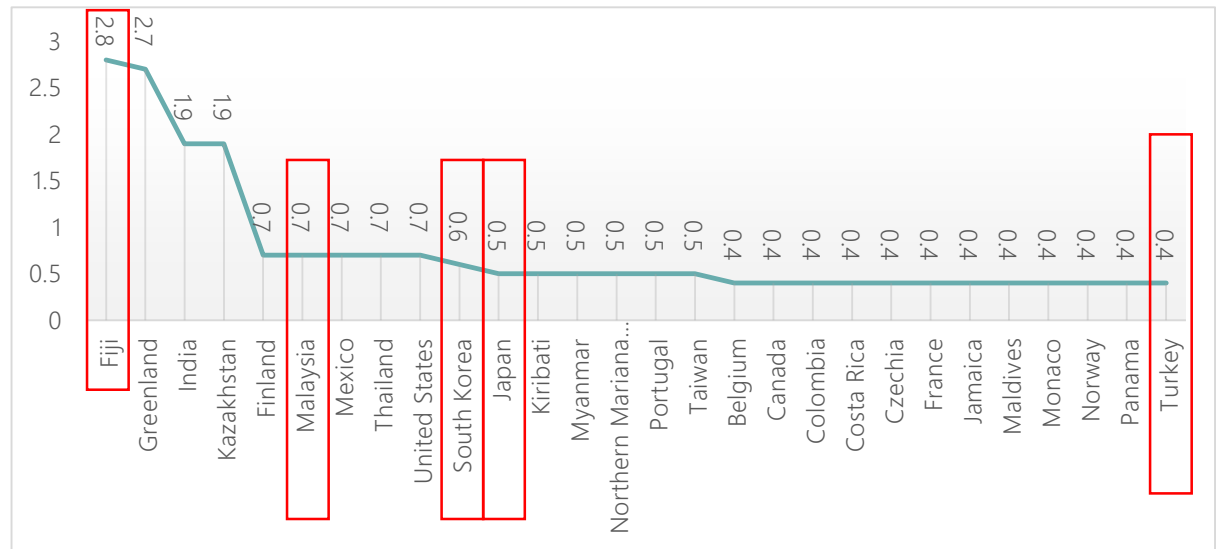
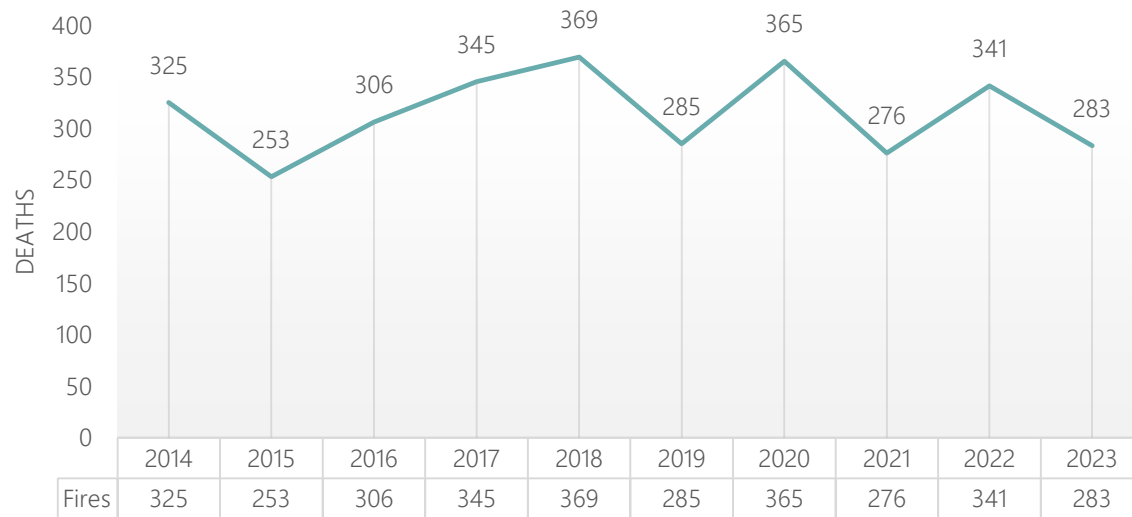
  - Natural Disasters: These include typhoons, heavy rain, heatwaves, cold waves, earthquakes, and similar events caused by natural phenomena.
  - Social Disasters: These cover incidents such as fires, collapses, explosions, traffic accidents, and infectious diseases, which arise from human activities or societal conditions.



Number of Deaths by Category of Natural Disaster Seasons in Korea

# Fires

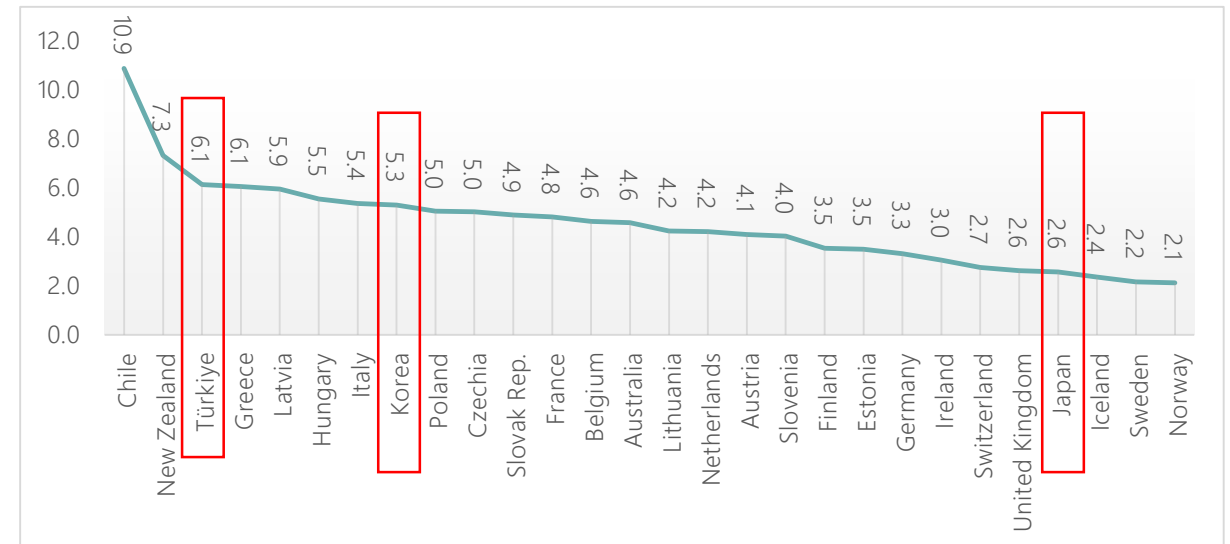
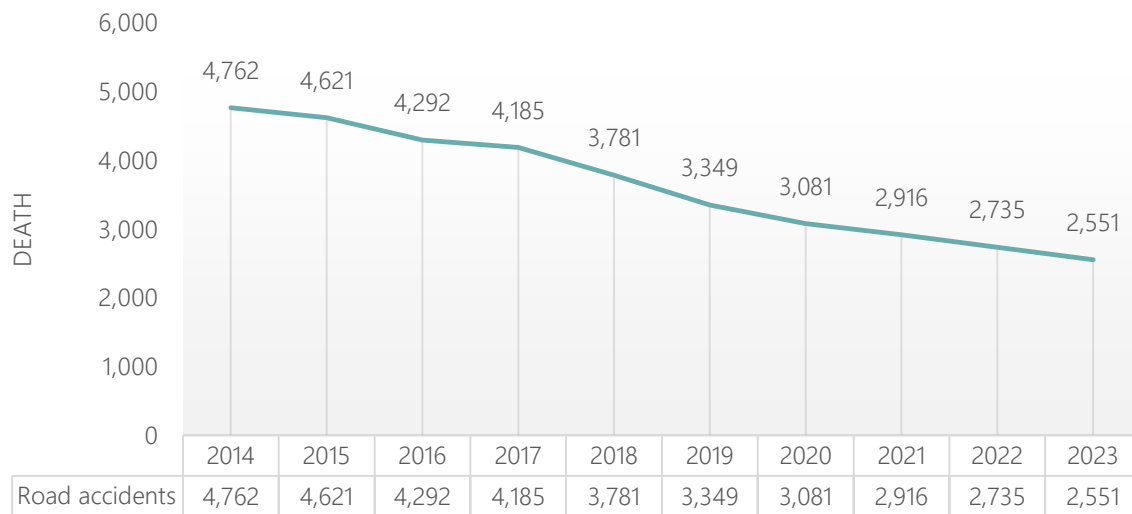
- Over the past 10 years, the number of fire-related deaths in South Korea is shown in the left figure. There is no clear downward trend in the number of fatalities. To assess whether this number is relatively high or low, let's compare it with data from other countries. The right figure shows the number 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.





# Road accidents

- The left figure shows the number of deaths from road accidents over the past 10 years, revealing a **consistent decline in fatalities**. The right figure 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.



# Road accidents

- 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:
- **1. 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.



<https://news.nate.com/view/20240717n23023>

... periods between shifts, increasing the minimum rest time from 8

... install advanced safety devices, such as:

... vehicle veers out of its lane.

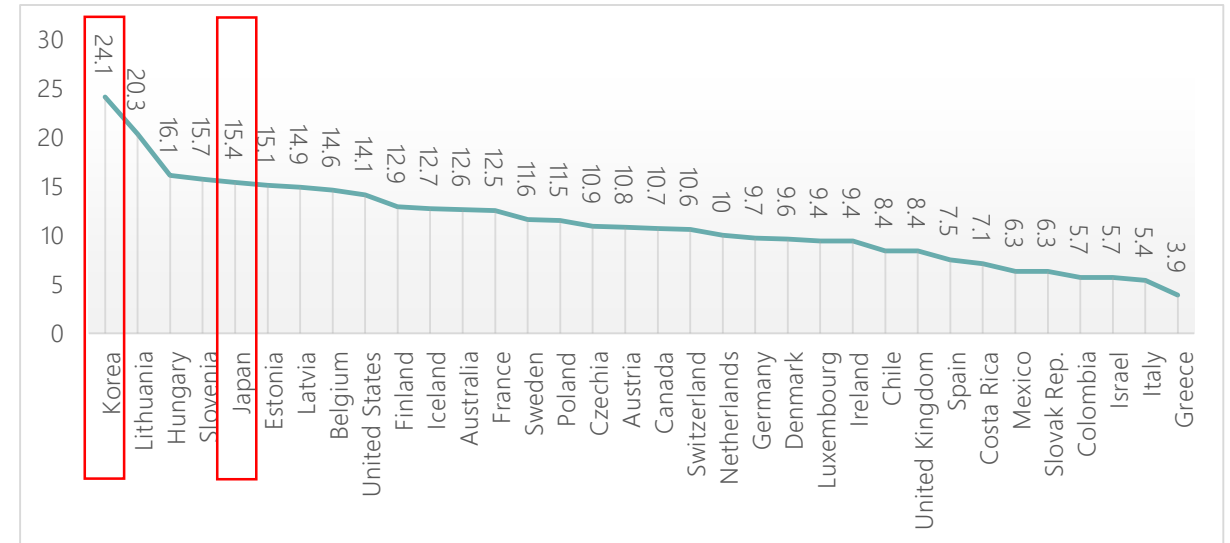
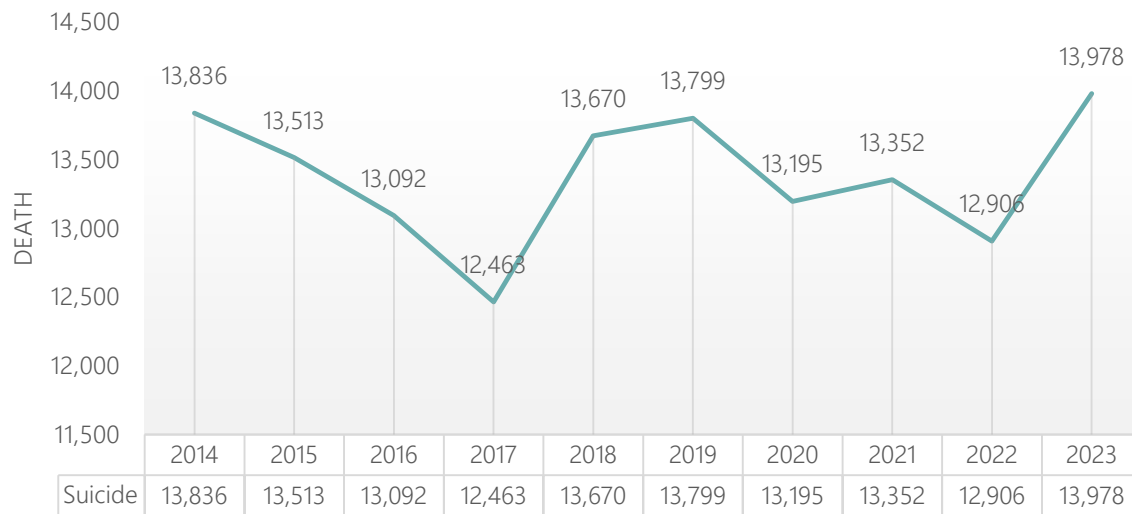
... ential collisions with vehicles ahead.

... brakes if a collision is imminent.

... s and designated "drowsy driving shelters" along highways to provide

# Suicide

- The left figure illustrates the **number of deaths by suicide**, showing little indication of a declining trend. The right figure 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.



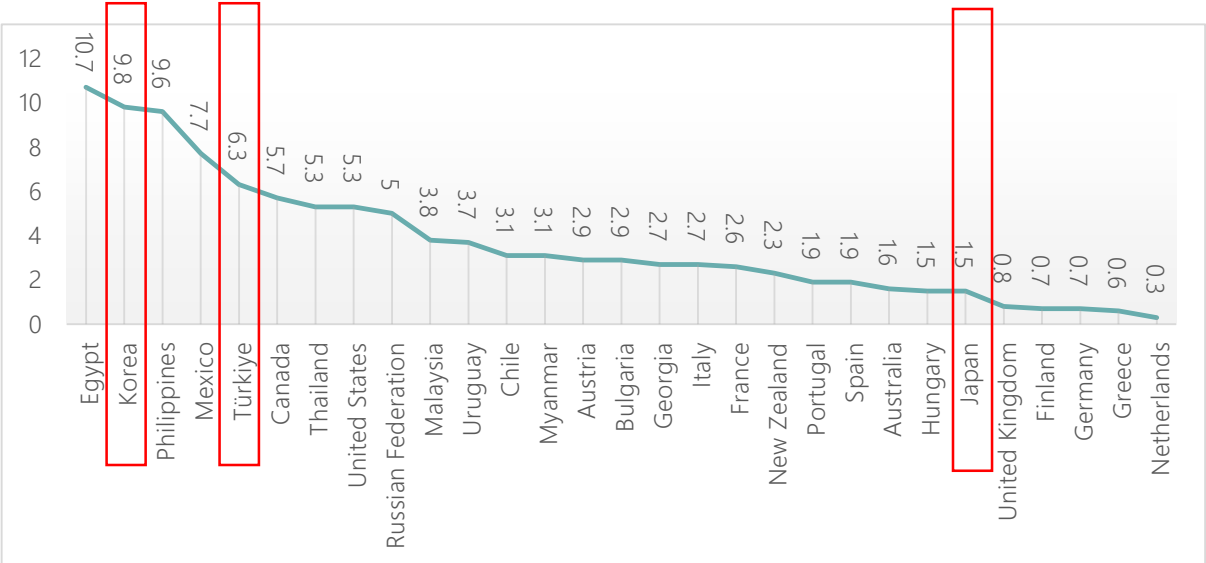
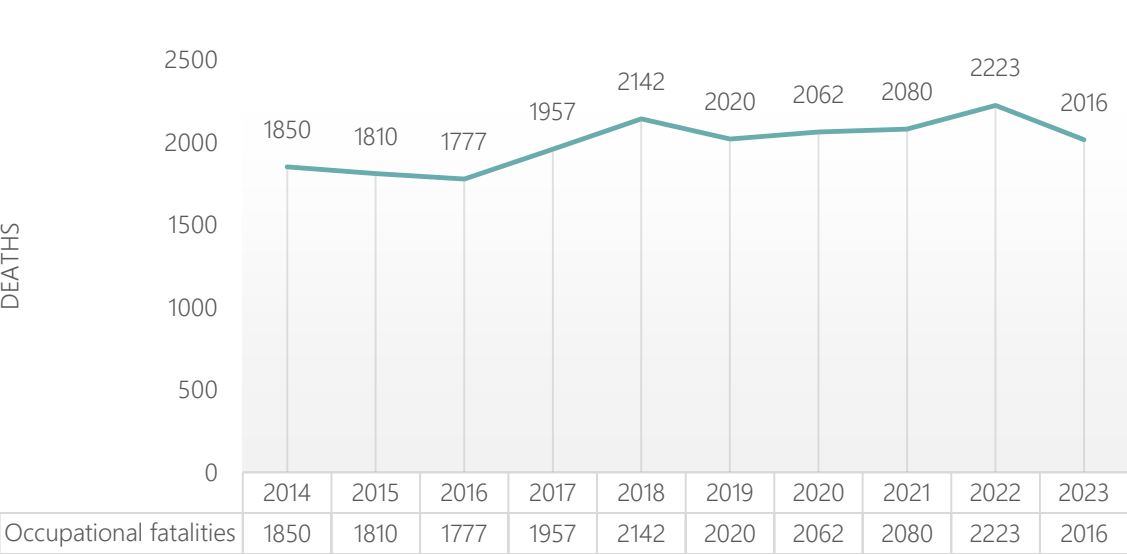
# Suicide

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



# Occupational Fatalities

- The left figure 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. The right figure 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.



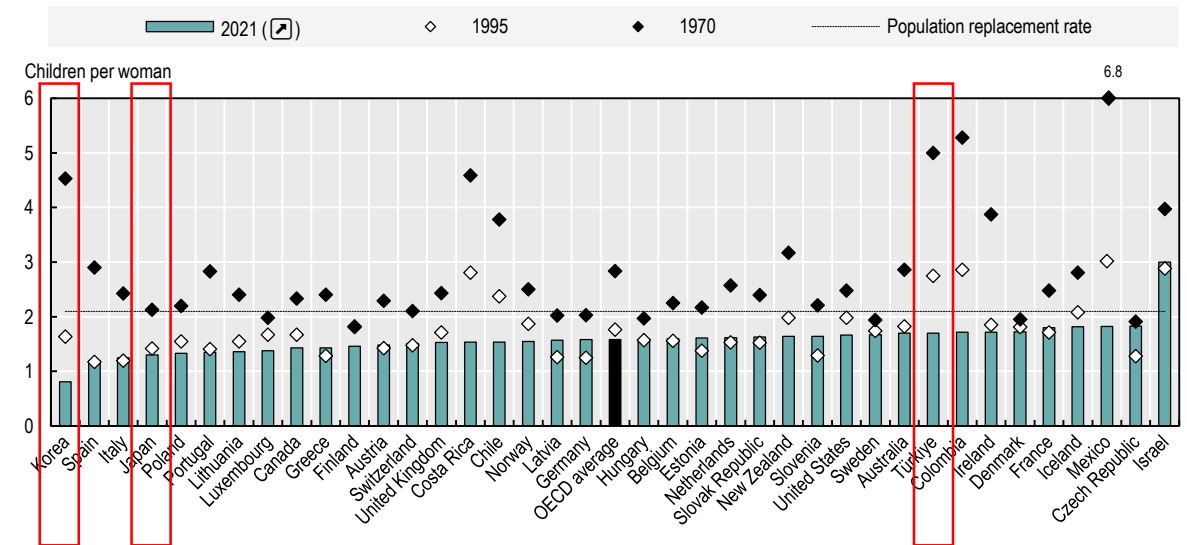
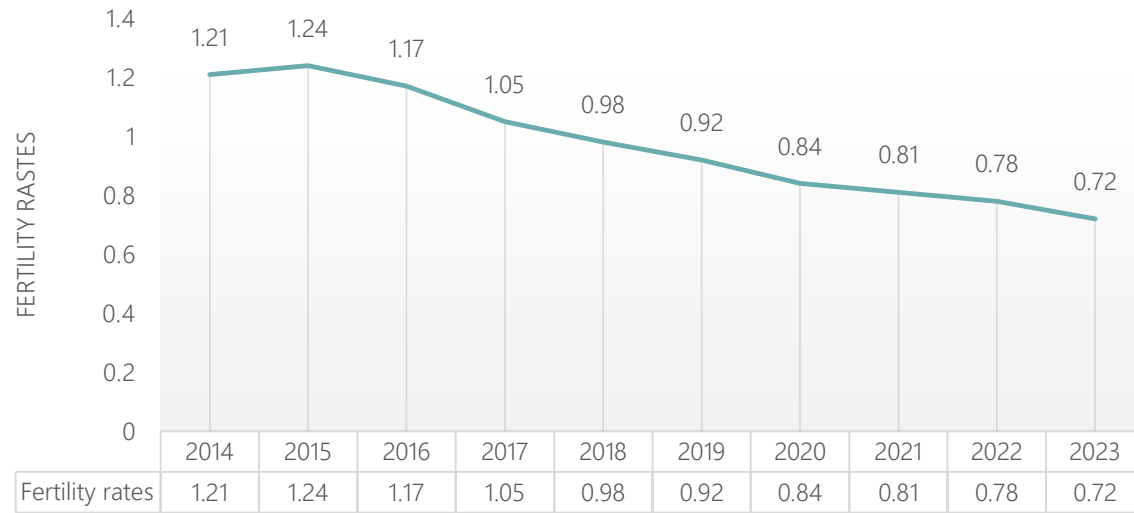
# Occupational Fatalities

- 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**.



# Fertility rates

- Although fertility rates are not directly related to disasters, **South Korea considers its low fertility rate one of the greatest national challenges**. The left figure illustrates South Korea's fertility rates over the past 10 years, showing a consistent decline, with the rate dropping to 0.72 in 2023. The right figure 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.





# Policies to Boost Fertility rates

### • Governmental-Level



**Monthly child allowance**  
For 8 years: 10,000 yen/month

**Parental benefits**  
For 1<sup>st</sup> year: 100,000 yen/month  
For 2<sup>nd</sup> year: 50,000 yen/month

**Congratulatory money: 200,000 yen**

### • Corporate-Level



#### Congratulatory money

For the 1<sup>st</sup> baby: 200,000 yen

For the 2<sup>nd</sup> baby: 500,000 yen

For the 3<sup>rd</sup> baby and subsequent children: 1,000,000 yen

CNN Business Markets Tech Media Calculators Videos

© Wa

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

By Gawon Bae, CNN

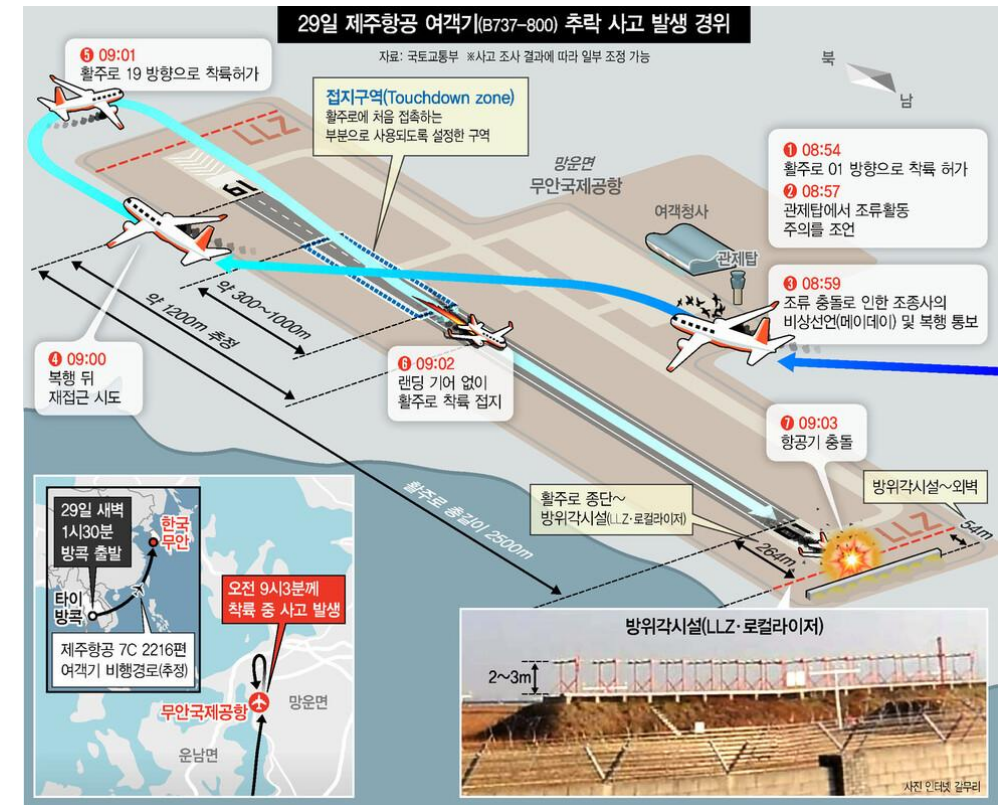
2 minute read · Updated 5:47 AM EST, Tue February 6, 2024





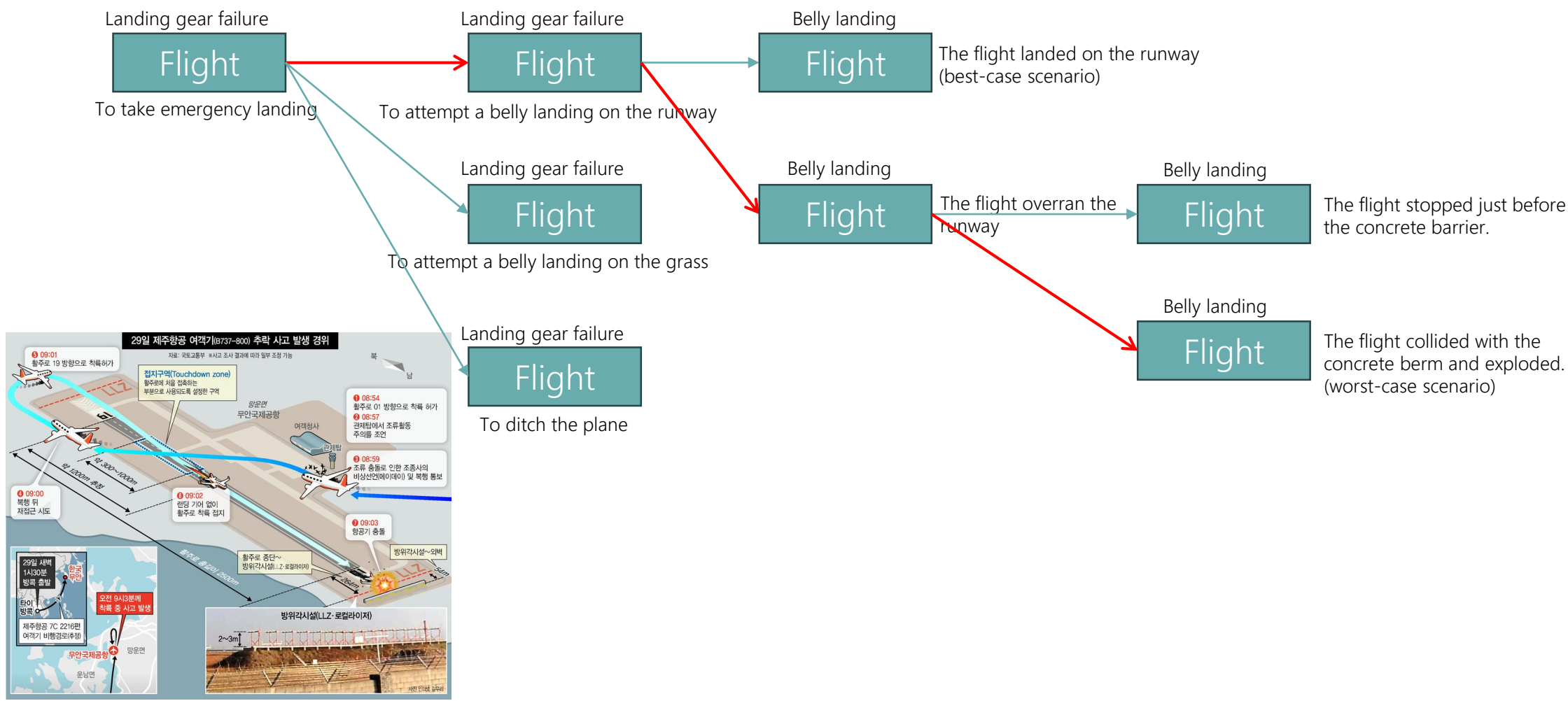
# Jeju Air Flight 2216 (29 December 2024)

- 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.



# Disaster progression patterns in the historic episodes

## Disaster progression scenarios for the potential episodes





## Cheongju Underpass Flooding (15 July 2023)

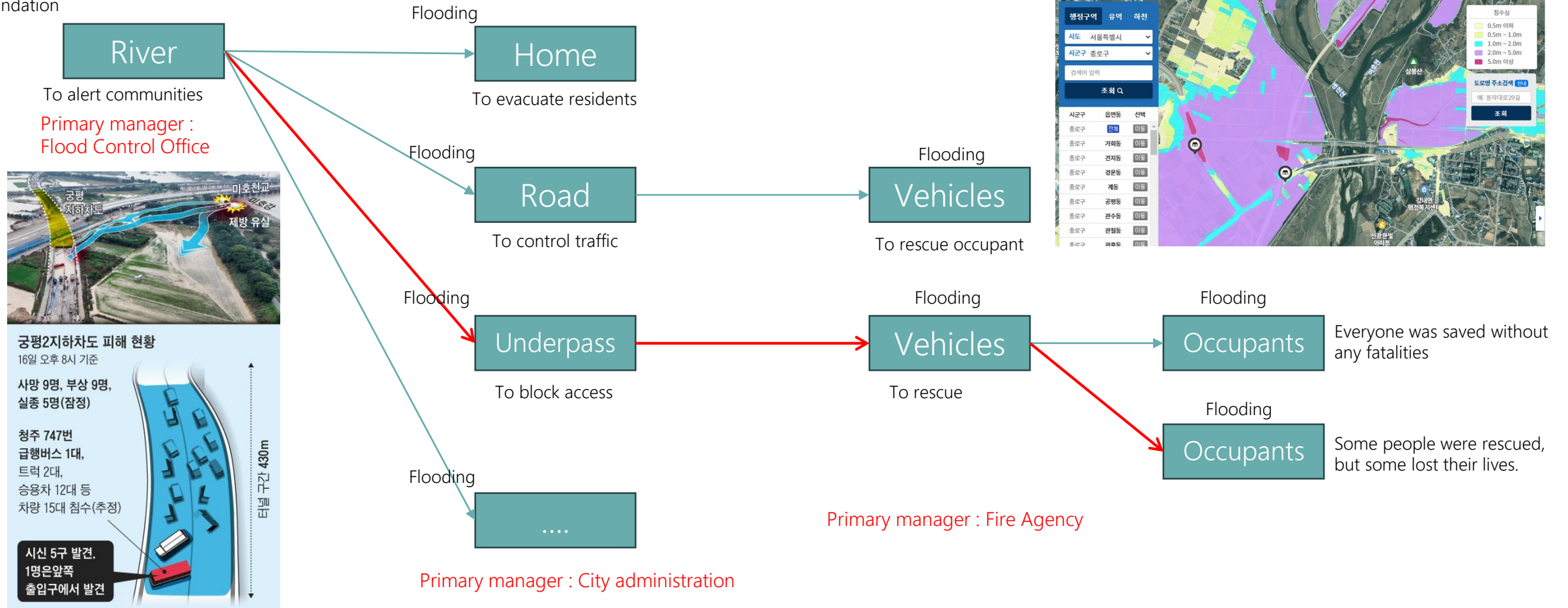
- On July 15, 2023, a tragic flooding incident occurred at the Gungpyeong 2 Underpass in Cheongju, resulting in the **deaths of 14** individuals. Although the Flood Control Office, responsible for managing the nearby river, had issued a flood warning, the **Cheongju municipal government, which oversees 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.



### III. Recent Major Disasters

# Disaster progression **patterns** in the historic episodes Disaster progression **scenarios** for the potential episodes

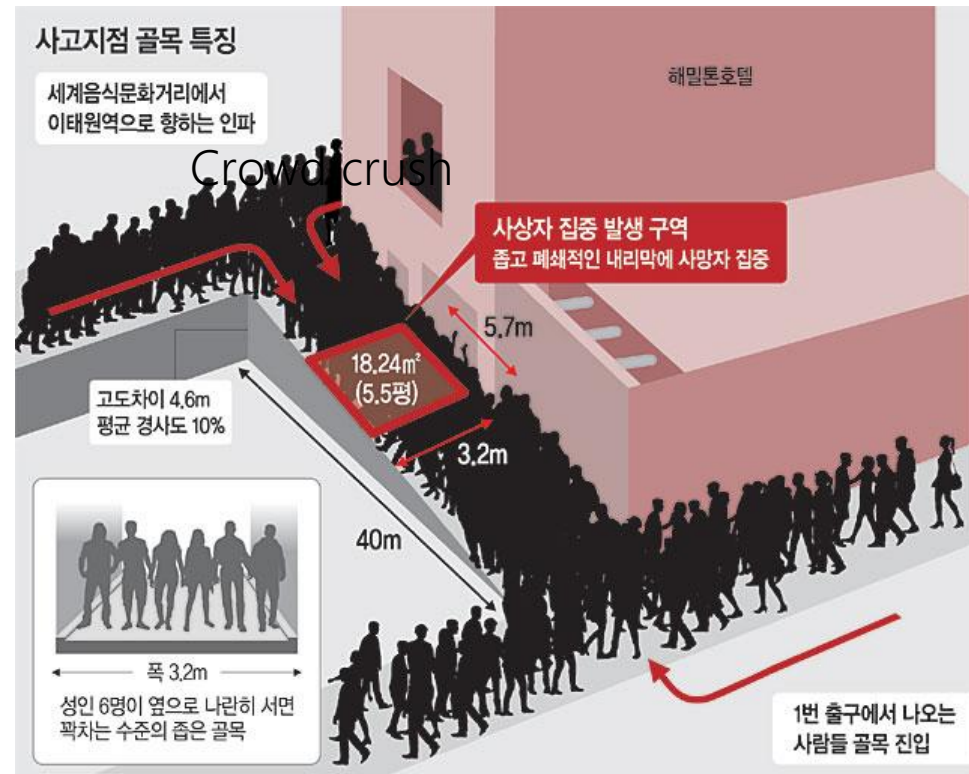
Inundation





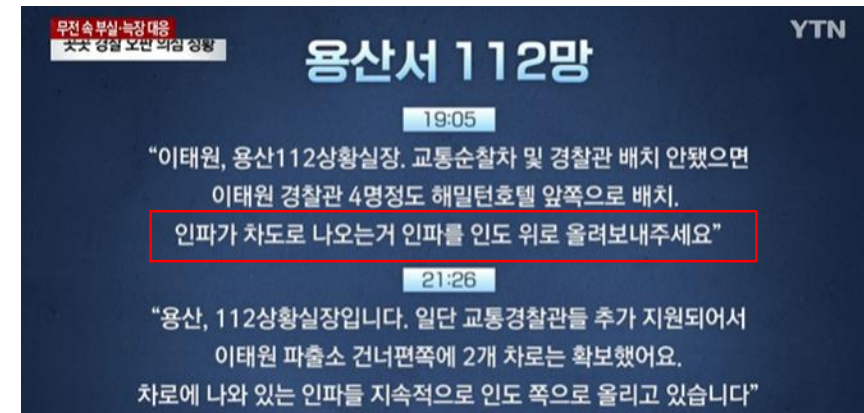
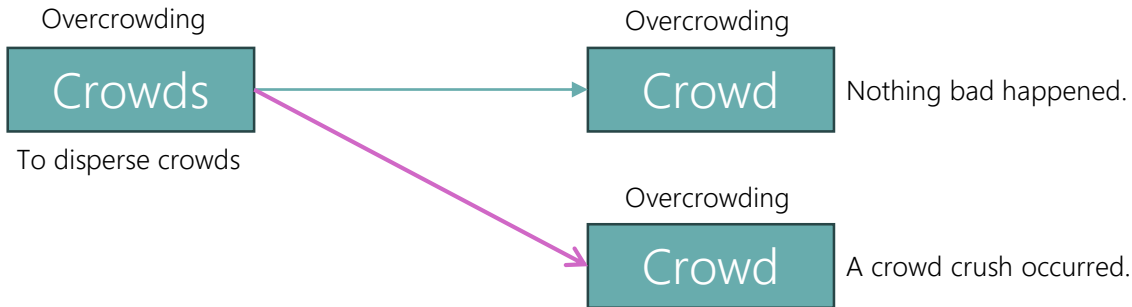
## Seoul Halloween crowd crush (29 October 2022)

- 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.



# Disaster progression **patterns** in the historic episodes

## Disaster progression **scenarios** for the potential episodes



The Yongsan 112 Situation Room monitored the situation in real time through CCTV footage, observing a crowd occupying the roadway. They instructed the on-site police officers to "prevent the crowd from entering the roadway".

# Pohang Apartment Underground Parking Lot Flooding (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.

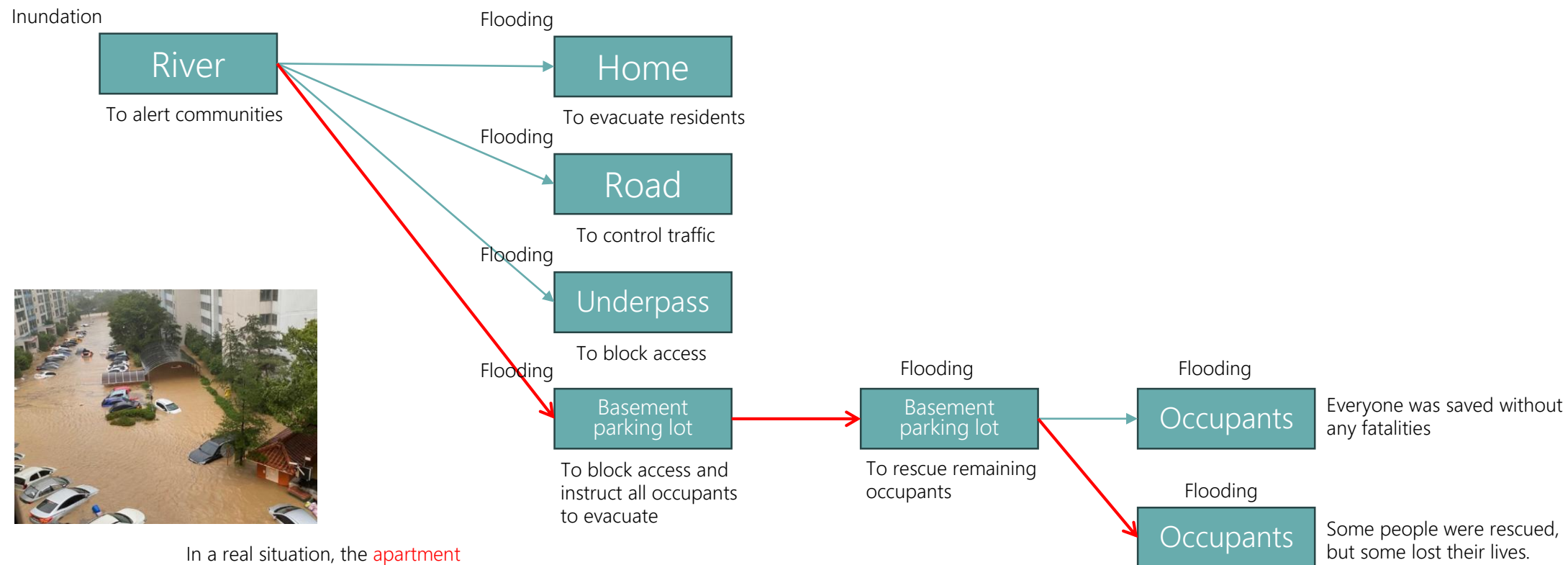


In cases where the area leading to the exit is the first to flood, the structural design of swing doors prevents them from being opened under such conditions.



# Disaster progression **patterns** in the historic episodes

## Disaster progression **scenarios** for the potential episodes



In a real situation, the apartment manager announced via a public address system to move your cars from the basement parking lot to the ground level at the beginning of flooding. He is now on trial for taking such actions.



# Legal System

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- Framework Act on Disaster and Safety Management (enacted in 2004)
- Countermeasures Against Natural Disasters Act (enacted in 1967)
- Act on the Preparation for Earthquakes and Volcanic Eruptions (enacted in 2015)
- Storm, Flood, and Earthquake Disaster Insurance Act (enacted in 2006)

# Organization

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- **KMA (Korea Meteorological Administration)** issues
  - Typhoon warnings
  - Heavy rain alerts (>60mm per 3-hour for advisory and >60mm per 3-hour for warning)
  - Storm alerts (>14m/s sustaining winds for advisory and >21m/s sustaining winds for warning)
  - Wave alerts (>3m efficient wave height for advisory and >5m efficient wave height for warning)
  - Snow alerts (>5cm/day fresh snowfall for advisory and >20cm/day fresh snowfall for warning )
  - Coldwave alerts (<-12C degree daily minimum temperature for advisory and -15C degree daily minimum temperature for warning)
  - Heatwave alerts ( >33C degree daily maximum chilly temperature for advisory and >35C degree daily max. chilly temperature for warning)
- **FCO (Flood Control Office)** issues
  - Flood alerts (>50% of design flood discharge for advisory and >70% of design flood discharge for warning)
- **KFS (Korean Forest Service)** issues
  - Landslide alerts (>80% moisture index for advisory and 100% moisture index for warning)
  - Wildfire alerts (>66% wildfire index for advisory and >86% wildfire index for warning)
- **Primary manager for all structures and population**
  - **Municipalities** must take responsibility for ensuring the safety and management of structures and the well-being of their population.

# Plan

- National-Level Plan

## The 5th National Basic Plan for Safety Management (2025–2029)



- Municipal-Level Plan

## Natural Disaster Mitigation Comprehensive Plan

행정안전부 고시 제2024-89호(2024.11.21.)

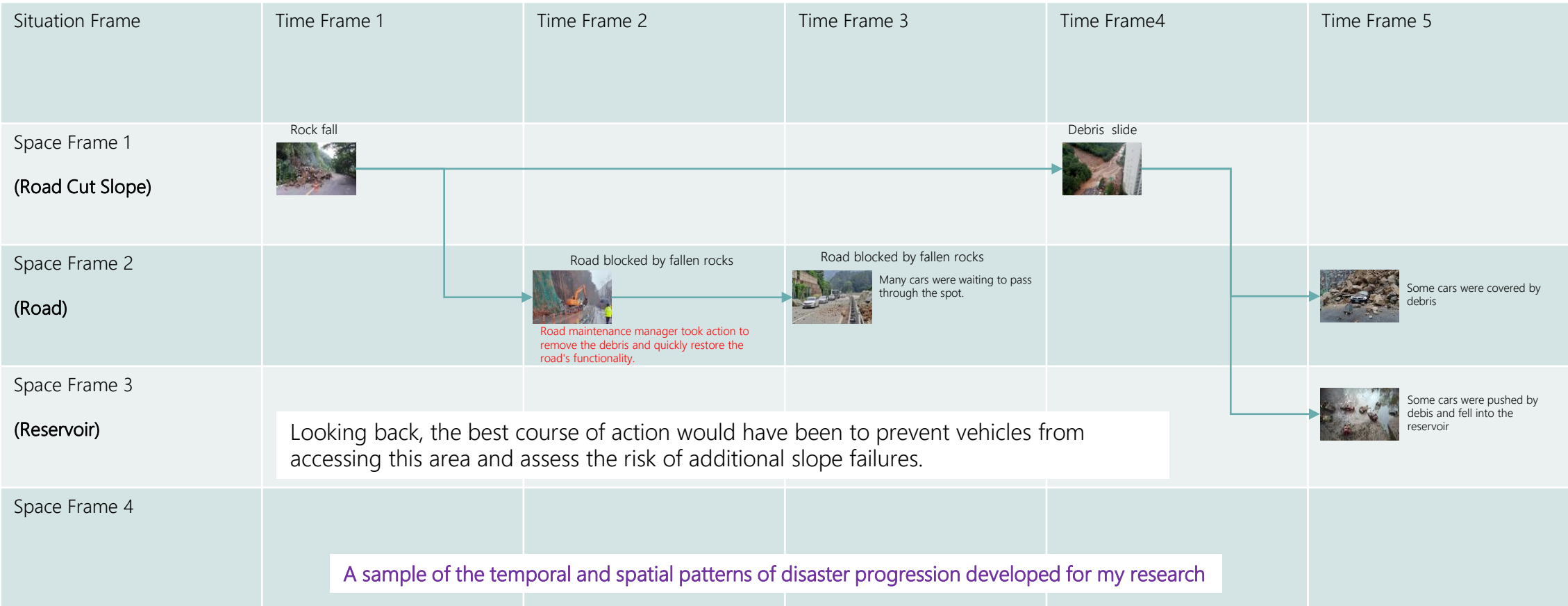
## 자연재해저감 종합계획 세부수립기준

2024. 11.

The Comprehensive Plan for Natural Disaster Mitigation, developed every five years at the municipal level, aims to assess disaster risks specific to each municipality and establish an integrated strategy to reduce these risks.

# Strengthening Disaster Response Capacities through Scenario Planning Education

- Disaster response capacity refers to the ability to understand the current situation, predict its progression, and take the most appropriate actions to prevent further damage.
- Disaster management requires the ability to predict the next phase based on the current situation and anticipate what may follow. Only with this foresight can the most appropriate actions be selected. I define this approach as 'scenario planning'.





Thank you  
for your  
attention.

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