

Regular Briefing (220512) - Preventing Man-Made Disasters Through Proactive and Systematic Flood Management

10:30 a.m., Thursday, May 12, 2022, Announced by Son Ok-ju,
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Hello, everyone. My name is Son Ok-ju, and I am a Director-General for the Ministry of Environment Water Resources Policy Bureau.

I would like to offer my heartfelt gratitude to everyone who has come here amid their hectic schedules.

The government will undertake measures against natural disasters from May 15 to October 15 to prevent flood damage throughout the summer season.

The weather forecast for this summer projects an increase in localized torrential rainfalls and typhoons due to unstable atmospheric conditions and a rise in average ocean temperature.

The Ministry of Environment (ME) has been given charge of river management from the Ministry of Land, Infrastructure, and Transport (MOLIT) for the first time this year in response to flood damage.

The Environmental Dispute Mediation Act has been revised since April 2021. The Serious Accident Punishment Act came into force this year. The Environmental Dispute Adjustment Act mandates state liability for flood-related property damages, while the Severe Accident Punishment Act mandates state liability for flood-related casualties.

In line with such statutes, the Ministry of Environment will undertake the following measures to prevent man-made disasters by proactive and systematic flood management.

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First and foremost, we will manage potential risks and support recovery.

We will operate the Flood Situation Room to run emergency operations with concerned

institutions during the disaster management cycle.

During the joint discussion led by Korea Meteorological Administration (KMA), not only weather forecasts, but also dam operations will also be briefed.

Moreover, Korea Hydro & Nuclear Power Co., Ltd., which oversees hydraulic dams, will join the discussion together with the Ministry of Environment, KMA, Flood Situation Room, and K-water.

As part of an effort to build preparedness against disasters, we also signed agreements between five Regional Land Management Offices under MOLIT and Environmental Offices. Such agreements will win us MOLIT backing for construction materials and heavy equipment for road management.

We are also working on drafts for flood damage surveys and operation regulations of the Flood Damage Investigation Board. We plan to organize an investigation board consisting of experts in water resources, similar to the Aviation and Railway Accident Investigation Board, to identify an objective and scientific cause of floods when the floods severely affect socially and economically.

Second, we will provide flood information customized to user demands. We conduct traffic control and support residents' evacuation by providing flood information about 551 points in 243 rivers and streams nationwide from the River Flood Control Offices.

Previously flood information was provided from the providers' perspective. The warning levels were categorized into four from Attention to Serious. From now on, the Ministry of Environment will offer customized information, such as the flooding of waterfront parking lots, river bed roads, and the Dongbu Expressway, so that the users can intuitively grasp the disaster situation. We will pilot this measure in 286 locations and continue to expand its application.

We will notify people one day before the floodgates discharge the water and also inform people three hours before the initiation.

Third, we will improve the ability of the Ministry to respond to floods.

We have classified 433 vulnerable regions to floods after a thorough investigation with the

concerned authority on flood vulnerability.

We are putting utmost effort into increasing flood preparedness, such as installing drainage gates. We will establish emergency recovery systems in areas where organizing measures are difficult to ensure a smooth response during the flood season.

Furthermore, we are forming local councils with residents in each region to exchange investigative findings, and we aim to minimize actual flood damages through prior recognition of potential risks.

There was a conference on dam operations focused on responding during the flood season in flood-prone regions located in the lower and upper parts of dams. We will expand the existing conference and hold it quarterly for better communication with residents.

We will double the flood control capacity structurally by maintaining the water level of nineteen multi-purpose dams in Soyang River Dam below the water level limit during the first half of the flood season.

We will triple the regional flood control capacity of Seomjin River Dam, a particularly vulnerable flood area, through test operations of drastically lowering the water level limit by 2.5 meters during the flood season.

Fourth, we will focus on managing border areas.

We experienced a terrible accident in September 2009, which resulted in the deaths of six vacationers due to the unauthorized discharging of Hwanggang River Dam in the northern Imjingang River.

After the accident, we developed a response system with the Ministry of Defense and other relevant ministries. We will operate three points for special flood reports this year. We will keep monitoring in case of a disastrous situation using satellite imaging and increase preparedness by operating Gunnam Dam and Hantan River Dam conjunctively.

Fifth, we will prepare mid-to-long-term countermeasures.

We will build an AI-based flood forecast system. We will gradually expand investments to prevent floods in national and regional rivers to ensure that the new administration's tasks are carried out smoothly.

From 2025, AI-based forecasts will help us expand human-operated flood forecasts focusing on large rivers to tributaries across the nation.

Flood risk maps projecting the scope and depth of river flooding have been publicized through the Flood Risk Map e-System since March this year to increase people's accessibility to flood risk information.

In addition, with flood risk maps projecting potential flooding in 67 downtown areas now open to the public, we will expand flood forecasting to 25 urban districts nationwide by 2025.

We will install CCTVs in 2,730 rivers across the country by 2025 to intuitively enhance real-time flood situation management.

There are 2,008 main drainage gates in rivers nationwide. Currently, human operates the drainage gates; workers, residents, or village leaders open and close the gates when torrential rainfalls occur.

We have, however, drastically improved the human-operated system into a remote-control system. This system has already been updated in 1,179 out of 2,008 locations to respond to this year's flood season. We plan to finalize the updates by the end of this year.

The Ministry of Environment will prepare for natural disasters during this year's summer season through close collaboration with local governments and relevant institutions. It will make every effort to protect people's lives and properties.

Here ends my briefing. Thank you for listening.