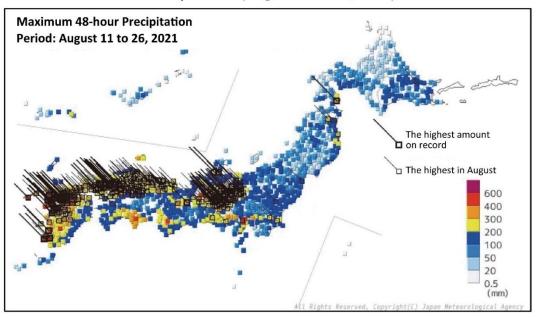
## Section 2 Disaster due to Heavy Rain in August of 2021

### (1) Overview

From August 11, 2021, the warm and humid air flowed into the front that had been lingering near Japan, causing the front to become active. This resulted in rainfall over a wide area from west to east Japan, and the total precipitation from August 11 to 26 exceeded 1,400 mm at most, which was record-breaking. On August 12, a stationary linear mesoscale convective system occurred over the northern Kyushu region, with rainfall exceeding 400 mm/24h at most. On August 13, a stationary linear mesoscale convective system developed over the Chugoku region, resulting in record daily precipitation marking the highest value of August at several locations. In response to this rainfall, the Japan Meteorological Agency issued a heavy rain emergency warning for Hiroshima Prefecture. On August 14, rainfall occurred over a wide area from west to east Japan. In particular, in the northern Kyushu region, the hazardous and very violent rains continued due to stationary linear mesoscale convective systems, and rainfall with 555.5 mm/ 24h was observed in Ureshino City, Saga Prefecture, the highest value on record. In response to this rainfall, the Japan Meteorological Agency issued heavy rain emergency warning for Nagasaki, Saga, Fukuoka, and Hiroshima Prefectures. From August 16 to 18, rain fell over a wide area, mainly on the Pacific side of west to east Japan, with precipitation exceeding 200 mm/24h at most in southern Kyushu, Shikoku, and Kinki regions. From August 19 to 22, hazardous and very violent rains continued intermittently mainly on the Pacific side of the Shikoku region with precipitation per day exceeding 200 mm at most. From August 22, Typhoon Omais in 2021 (T2112) and the low pressure system that changed from the tropical cyclone caused rainfall in some areas.

### Maximum 48-hour Precipitation (August 11 to 26, 2021)



Major Precipitation during the Period (August 11, 2021 - 26, 2021)

Prefectures	Municipalities	Location name	Precipitation (mm)	
Kochi	Umaji Village, Aki County	Yanase	1431.0	
Miyazaki	Ebino City	Ebino	1426.0	
Nagasaki	Unzen City	Unzendake	1360.0	
Saga	Ureshino City	Ureshino	1334.5	
Kochi	Kami City	Shigeto	1270.5	

Source: Prepared by the Cabinet Office from the Japan Meteorological Agency website.

### (2) Overview of Damage

The Heavy Rain in August of 2021 caused debris flow in Okaya City, Nagano Prefecture, slope failure in Unzen City, Nagasaki Prefecture and flooding along the Rokkaku River in Saga Prefecture, resulting in 13 deaths (3 in Nagano, 3 in Hiroshima, 5 in Nagasaki, 1 in Kumamoto, and 1 in Kagoshima Prefectures), 4 seriously injured (1 in Nagano, 2 in Fukuoka and 1 in Nagasaki Prefectures) and 13 slightly injured. Forty-five houses were completely destroyed, 1,534 were half or partially destroyed, and 4,887 were flooded above or below floor level (Source: Fire and Disaster Management Agency, as of March 25, 2022).

(Reference: https://www.fdma.go.jp/disaster/info/items/20210811ooame25.pdf)

# Human and Housing Damage (as of March 25, 2022)

### ■ Human Damage

### **■** Housing Damage

	Death	Major Injuries	Minor Injuries		Completely Destroyed	Half Destroyed	Partial Destroyed	Inundation above Floor Level	Inundation below Floor Level
Nagano	3	1	4	Nagano	7	4	40	1	463
Hiroshima	3	0	1	Gifu	0	2	42	24	54
Fukuoka	0	2	1	Hiroshima	11	78	37	120	343
Saga	0	0	4	Fukuoka	10	53	56	346	970
Nagasaki	5	1	0	Saga	5	1,083	14	271	2,045
Other	2	0	3	Other	12	14	11	34	216
Total	13	4	13	Total	45	1,234	300	796	4,091

Source: Prepared by the Cabinet Office from the Fire and Disaster Management Agency website.

This heavy rain caused damage to lifelines, including suspension of water supply as well as 414 cases of sediment disaster (landslide disaster) and flooding in 68 rivers in 26 water systems.

In addition, the "Disaster Relief Act" was applied to 13 cities, 7 towns and 1 village in 6 prefectures due to this heavy rain.

### Damage from Heavy Rain in August of 2021



Slope failure damage in Okaya City, Nagano Prefecture (Source: Cabinet Office data)



Slope failure damage in Unzen City, Nagasaki Prefecture (Source: Cabinet Office data)



Flooding damage at Rokkaku River in Takeo City, Saga Prefecture (Source: Cabinet Office data)

#### (3) Response by the Government

At 11:00 a.m. of August 12, 2021, the government established an Information Contact Office in the Prime Minister's Office and held an Inter-Agency Disaster Alert Meeting. At 8:45 a.m. on August 13, a heavy rain emergency warning was issued for Hiroshima Prefecture (at the same time, the Information Contact Office was reorganized into the Emergency Contact Office in the Prime Minister's Office), and at 8:46 a.m., then Prime Minister Suga ordered the following instructions: (1) "to provide the public with information on evacuation, rainfall and river conditions timely and accurately," (2) "to take all possible precautionary measures for evacuation assistance by working in close cooperation with local governments so that the residents who live in inundation areas can be sure to evacuate," and (3) "to promptly understand the situation and implement all necessary disaster response measures under the policy of putting human life first with the government's acting in one body in case of disasters." At 9:50 a.m., the Emergency Contact Office was reorganized into the Emergency Response Office in the Prime Minister's Office, and the first Ministerial Meeting was held with then Prime Minister Suga. Furthermore, at 11:30 a.m., the Authorized Disaster Management Headquarters was established and at 3:00 p.m., and its first meeting was held. These meeting were held nine times in total until August 24. At 9:15 a.m. of the August 15, a Cabinet Office Survey Team was dispatched to the Saga Prefecture Government Office.

On August 21, then Minister of State for Disaster Management Tanahashi visited affected sites in Saga and

Nagasaki Prefectures, and on August 24, then State Minister of the Cabinet Office Akazawa inspected the affected area in Nagano Prefecture.

On September 28, 2021, the Cabinet approved a cabinet order to designate disasters caused by storm and heavy rain during the period from August 7 to 23 as a Disaster of Extreme Severity (see Appendix 14-2).



The first Ministerial Meeting (the first meeting) concerned with the Heavy Rain from August 11 of 2021

(Source: Cabinet Office data)



Then Minister of State for Disaster

Management Tanahashi who visited affected
sites in Saga and Nagasaki Prefectures

(Source: Cabinet Office data)



The 6<sup>th</sup> meeting of Authorized Disaster Management Headquarters for the heavy rain in August of 2021 (Source: Cabinet Office data)