



About storms and floods / sediment disasters ①

Preparing for storms and floods

As typhoons and concentrated torrential rain involve strong winds and very heavy rain, different kinds of damage such as flooded houses, burst river banks and sediment disasters can be anticipated. Prepare for storms and floods and properly implement safety measures on a daily basis.

Pay attention to weather forecasts and information

The timing and scale of typhoons and torrential rain can be predicted to a certain extent. It is important to make sure you keep an eye on weather information and take measures against wind and rain on a routine basis.



Inspect and maintain indoors and outdoors

Tin roofs that are not secured and antennas that are not stable can cause damage in strong winds or typhoons. Don't forget to do regular inspections!



Check evacuation areas and routes

Check the location of your closest evacuation area in the disaster prevention handbook and how to get there. It is a good idea to remember nearby landmarks.



Prepare emergency stockpiles / survival kits

Prepare stockpiles and survival kits for emergencies. See the Emergency survival kits section on page 50 and prepare these with your families, considering substitutions where necessary.



Preparing for a sediment disaster

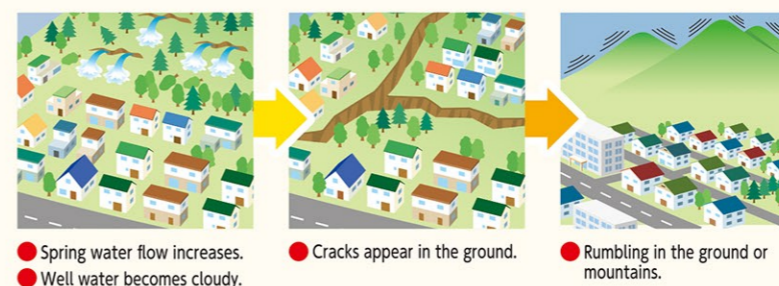
Sediment disasters, in general, are caused by an increase in ground water content due to rain or melting snow that softens the ground and further prolonged or concentrated torrential rain. If you detect the following preliminary phenomena, there may be imminent risk of a sediment disaster. Evacuate with people around you to a safe place immediately and inform the relevant organizations.

Be aware of these preliminary phenomena!!



Debris flow

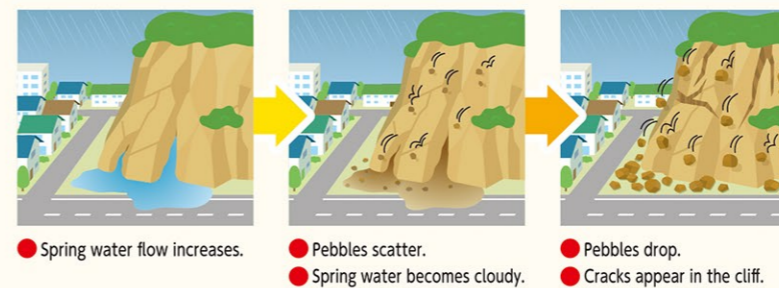
This is a phenomenon in which stones and earth from the mountainside and the river bottom are instantly washed downstream caused by prolonged or concentrated torrential rain.



Landslide

This is a phenomenon in which part or all of a slope slowly moves towards the bottom due to the effects of groundwater and gravity.

*Please be aware that these are technically very difficult to predict so they are not included in Landslide Disaster Alert Information.



Cliff collapse

This is a phenomenon in which water that has soaked into the ground weakens its resistance and slopes suddenly collapse due to rain, earthquakes and so on.

How to protect yourself in a sediment disaster.

Pay attention to the rain



Most sediment disasters are caused by rain. Caution is required if there is more than 20ml of rain in an hour or more than 80ml over a continuous period of rainfall.

Pay attention to Landslide Alert Information.



Landslide Disaster Alert Information is disaster prevention information announced jointly by the Hokkaido government and the JMA to be used as a reference for the mayor when deciding to issue Evacuation Orders or for residents who are evacuating voluntarily when there is a heightened risk of sediment disasters due to heavy rain. The decision to evacuate should be made as early as possible based on this information.

Wind and rain danger level checkpoints!!

The Japan Meteorological Agency issues Advisories when there is concern that a disaster may occur, Warnings when there is concern that a serious disaster may occur and Special Warnings when there is very great concern that a serious disaster may occur due to heavy rain or strong winds, etc. Get the latest information from TV, radio or the internet and prepare for the disaster.

Rainfall per hour and its estimated damage

Fairly heavy rain (10~20mm)



It is raining heavily. The ground is covered in puddles. Caution is required if it continues for a long period of time.

Heavy rain (20~30mm)



The rain is very heavy. Gutters and drains overflow, small rivers burst their banks and there is concern about cliff collapse.

Torrential rain (30~50mm)



The rain falls as if it has been poured from a bucket. Roads look like rivers and controls are put in place.

Really torrential rain (50~80mm)



Rain falls like a waterfall (continuous torrential rain) and it is more likely that debris flow will occur.

Violent torrential rain (80mm or more)



There is a feeling of pressure, almost as if it is difficult to breathe, and concern that a large-scale disaster caused by rain will occur.

Wind strengths and their estimated damage

*Wind speed is a measurement of the average speed of the wind over 10 minutes. Maximum instantaneous wind speed can be up to between 1.5 and 3 times faster than average wind speed.

Fairly strong wind (Wind speed 10 - 15m/s)



It is difficult to walk into the wind. Trees and telephone wires start to sway.

Strong wind (Wind speed 15 - 20m/s)



It is impossible to walk into the wind; some people are blown over. Signs and iron sheets begin to be torn off.

Extremely strong wind (Wind speed 20 - 25m/s)



Shutters may be damaged and greenhouses destroyed; there is also the possibility that flying objects may break windows.

Violent wind (Wind speed 25 - 30m/s)



There is a risk of breeze block walls being destroyed and loose cladding flying off.

Violent wind (Wind speed 30m/s or more)



Roofs can fly off and wooden houses can be completely destroyed.

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