Safety

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## 3 Do you know major natural disasters and the location of active faults in Kumamoto Prefecture?

Kumamoto Prefecture is vulnerable to damage by storms and floods relaively.

There are two reasons.

- (1) Warm moist airs from the East China Sea hit the mountain range that runs through Kyushu, and bring heavy rain localized by updraft there; the water flow into Shirakawa River, Midorikawa River, and Kuma River which runs through Kumamoto Prefecture and cause floods.
- (2) Kumamoto prefecture is susceptible to suffer damage from heavy storm and heavy rain due to a passage of typhoons.

In addition, it is susceptible to suffer damage from storm surge in the coast area.

In 1953, torrential rains by rainy front hit Kumamoto City and caused a flood of Shirakawa River that burst their bank.

And Kumamoto City was damaged by overflowed from Shirakawa River in 1980 and in 1990 as well. Recently, in 2007, Kumamoto City was hit by torrential rains which caused 7 houses flooded above floor level.

In 2012, a torrential rain we've never experienced so far in the northern region of Kyushu caused floods and sediment disasters in various places in Kumamoto Prefecture which inflict the damage with 25 people dead or missing, 3406 house damage (169 houses destroyed, 1293 hoses partially destroyed, and 544 houses inundation above floor level).

There are 108 active volcanoes in Japan; in the east part of Kumamoto Prefecture, there is Mt. Aso, one of "13 active volcanoes which we should observe and research intensively", exploded and caused natural disasters in 1932, 1958 and 1979.

It is said that Kumamoto Prefecture has comparatively few earthquakes.

But, there are three faults in the middle part of Kumamoto Prefecture: Tatsuta Mountain fault, Futagawa fault, and Hinagu fault. The Headquarter of Promotion of Earthquake Research (under control of Ministry of Education) in 2002 reported that the possibility of earthquake centered in these fault zones is not zero percent during the next 30 years.

In addition, if an earthquake by these faults occurs, the vibration of earthquake intensity 6 is expected. Kumamoto Prefecture might sustain damage from the vibration of a giant earthquake that happens in the Nankai Trough if the focal area is from the coast of Sikoku to Kii Peninsula. (The Headquarters of Promotion of Earthquake Research)

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