

# The history of disasters and the local myths and customs of disaster prevention at Aso National Park

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Aso National Park suffered many recent natural disasters such as the Kumamoto earthquake (April 2016), the northern Kyushu torrential rain (July 2012), and the eruptions of Mt. Aso (September 2015, October 2016). The topographic characteristic of Aso is that it is a huge caldera which was created by four volcanic eruptions with pyroclastic flows. Inside the outer rim of the somma caldera is home to a vast grassland lying at 700 to 800 meters above sea level. The annual rainfall reaches approximately 3,200 mm in Aso which makes it the second highest rainfall in Japan. The wind from the Ariake Sea southwest of Kumamoto at 1,000m altitude meets with the wind from the Pacific Ocean to cause heavy rainfall in the Aso area during the summer. Also, the influence of the hot and humid air flow from the East China Sea increases the possibility of torrential rains in the rainy season. The volcanic soil and the weather conditions are not suitable for cultivation, so the Aso area was developed using drainage engineering techniques and the local people have been using the grassland for livestock for centuries. In Aso National Park, grasslands maintained by people's activities since ancient times, such as burning, grazing and planting grass, have become a tourist attraction. During disasters, local communities brought together by the grassland maintenance and management activities helped the local residents to survive. In this research, literature survey and interviews were conducted about the knowledge and customs born from coexistence with volcanoes and nature in the Aso area. According to the disaster history from the Meiji period to present, Earthquakes are the most frequent disasters and have happened 29 times, followed by 19 rainstorms and 8 eruptions. According to the myths, There are 178 myths about the Aso area, mainly about the weather including 74 myths about rain and frost (EX. When the volcanic fumes flow to the valley of Mt Aso, it will be rain), 38 about sunshine (EX. When the owl hoo at the night, it will be sunshine).. There is one myth according to which, a earthquakes will hit when pheasants hoo at night. There is also one myth about volcanic eruption. In the interview survey with the local elderly about the history of disasters and disaster prevention, the wooden plate is called "Han", and it used to alert the neighborhood of impending disasters. It is not used anymore, of course, but it is kept there to remind people of the importance to help each other at times of disasters. The typical example of land use in Aso with balanced combination of rice fields, bamboo forests, orangeries, timber forests, and pasture. They traditionally avoided forestation at the higher slopes because those areas were more difficult to access, more difficult to maintain and also caused landslides. The Nishi Yuura grassland used to be typical example of land use in Aso did not suffer landslides at the time of the Kumamoto Earthquake. This study clarified that the local myths contain a lot of natural phenomenon. On the other hand, the local myths refer to little about earthquake. This study confirmed that the mutual assistance has been kept in the community of the disaster prone Aso area. It will be used to evaluate materials for disaster prevention education and tourism resources for reconstruction.

Keywords: Aso, Kumamoto Earthquake 2016, local myths