

A large-scale volcanic eruption and mountaineering association

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Aim of abstract

Outdoor sports are increasingly popular in Japan. The development of climbing equipment has enabled general climbing enthusiasts to reach the summit easily, and currently the health-conscious middle-aged and elderly are flocking to the mountains. However, Japan has 108 active volcanoes. When a volcano erupts, it causes harm not only to local residents, but also to climbers.

This study, focusing on the past utilization of public sports facilities in time of disaster and subsequent reconstruction, conducts analyses in a framework of time-series (Kawata, 2003). Why focus on the utilization of public sports facilities in time of disaster? Because it can be an index of publicness when appropriating large sums of public funds for the construction and upkeep costs as well as the basis for securing the budget for other non-sport related departments.

Therefore the first goal of this study is to show examples of how public sports facilities are utilized in time of disaster. And the second goal is to extract key concepts concerning the institutions in charge of mountain sports because sporting sites can also be the sites of mountain climbing disaster sites.

Theoretical background

There is research concerning sport facility management during large-scale disasters, such as hurricanes, tsunami (Klein & Huang, 2007) and earthquakes, often noted in connection to volcanic disaster. Most research about climbers centers on physiology, sports medicine and environmental studies. Research connected to sports management is limited. Some of the case studies on volcanic disasters have researched the effect on local residents, but little focuses on climbers (Deanne K. Bird et al, 2010).

Methodology

For this study I conducted several longitudinal interview surveys from March 2015 to October 2015. I targeted local officials in a Disaster Prevention Division and Sport Promotion Division, a related ministry bureaucrat, and the manager of a local mountaineering association. The areas under study had or were expected to have a large-scale volcanic eruption. The survey's main concentration was related to the use of sport facilities in disaster prevention plans and their actual use, and mountain climber activities during both ordinary and crisis situations. One hour, semi-structured interviews were conducted, transcribed, and analyzed. The survey was serialized by an interviewer and interviewee to ensure record validity and coded to the behavioral and cognized phase with a geological science scholar to secure methodological triangulation.

Findings and Analysis

Public sports facilities disaster preparation includes posting information at starting points for a climb and on eruption disasters affecting mountain cabins, stockpiling food and emergency supplies, constructing and evacuating mountain

cabins, and confirming strength of existing lodges. During eruption, public and private organizations cooperated to secure the safety of climbers and facilities were utilized as temporary shelters for evacuation, thus safeguarding countless lives. The managers of the facilities even led the climbers down the mountain. Soon after eruption, multi-purpose spaces at the foot of the mountain became the base for rescue efforts performed by the Japanese Self-Defense Forces, and facilities like gymnasiums were utilized as temporary accommodations. In this study, different from other disasters, volcanic eruption rescue efforts continued for over a year due to a stop during the winter months.

The Mountain Climbers' Association had provided information on climbing including disasters, but the inability to compete updates with the convenience of timely, on-line postings based on individual experiences caused mountain climbers to rely on individual SNS, generating the so-called "cyber cascade". On the other hand, as might be expected, in an emergency response to a disaster, basic knowledge on climbing mountains and knowledge on disasters became the difference between life and death. Last year, Japan enacted the Act on Special Measures for Active Volcanoes, which stipulates that mountain climbers should have access to volcano information, further recognizing the importance of information dissemination. It is therefore critically important to continue to educate the public, such as safe-climbing lectures conducted by the Mountain Climbers' Association.

In areas with volcanoes, it is now required to establish a volcano disaster-prevention committee consisting of prefectural and city governments, the meteorological observatory, local development bureau, the Self-Defense Forces, the local police and fire departments, and volcano experts. But in this research example, the Mountain Climbers' Association also participated. The problem is to what extent can the daily information provided by the Mountain Climbers' Association, such as volcano activity, hazard maps, and disaster education, be promoted through a network of organizations. Clearly, we must construct a framework to quantitatively grasp what is of importance, both "information," meaning climbers receiving and disseminating information, and "cooperation," referring to interaction between organizations.

Abstract reference

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