Relationship between occurrence of mudflow and eruptive activity of the Sakurajima Volcano

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Comparing the number of mudflow occurrences, number of eruptions, and rainfall characteristics of the Sakurajima Volcano, it became evident that the number of mudflow occurrences is correlated significantly to the number of eruptions.

Accordingly, clarification of the mechanism that generates mudflows in a volcanic area requires identification of the kinds of phenomena that are associated with eruptive activity in addition to rainfall characteristics. The authors attached importance not only to volcanic ash originating from the eruptive activity, which accumulated as unstable sediment. They also considered that the existence of dried fresh fine-grained fallout ash is important.