



## **Will tourists positively respond to a jökulhlaup warning if Katla erupts in southern Iceland?**

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Recent research in southern Iceland predicts that a catastrophic jökulhlaup (glacial outburst flood), triggered by an eruption of the Katla volcano, could flood the Markarfljót River, west of the Mýrdalsjökull glacier. Such a flood would inundate the valley surrounding the popular tourist destination of Þórsmörk to a depth of more than 20 m within 2 hours of the eruption. The Icelandic Civil Defence has developed, but not implemented, an evacuation plan and hazard education strategies for tourists in the Þórsmörk region. In conjunction with local police and rescue teams, hazard information signs will be erected in prominent positions along hiking trails and inside mountain huts in Þórsmörk prior to the commencement of the 2008 tourist season. However, a positive response to evacuation orders is partly dependent upon the tourists' knowledge and awareness of Katla and jökulhlaup hazard. During the 2007 summer season, face-to-face questionnaire survey interviews were conducted with 116 tourists in the Þórsmörk region in order to assess their knowledge and awareness of Katla and jökulhlaup hazard. The results of the survey showed that most participants, Icelandic and international, lack general knowledge about the Katla volcano whilst an overwhelming majority of international participants are unaware of jökulhlaup hazard. The proposed hazard education campaigns are a timely necessity considering that Katla is believed to be in an agitated state and well overdue for an eruption. To further exacerbate the situation in Þórsmörk, increased seismicity has been recorded in the western region of the caldera suggesting that a future eruption could produce a jökulhlaup from the

western catchment of Mýrdalsjökull and along the Markarfljót River. This region has not experienced a volcanogenic flood in historic times. The proposed hazard education campaigns should greatly improve knowledge and awareness of Katla and jökulhlaup hazard. However, providing hazard education does not automatically increase public understanding and recognition of the possible threat of jökulhlaup. Therefore, follow-up surveys will be conducted in 2008 to reassess the public's knowledge and awareness of Katla. A comparison of the 2007 and 2008 results will be undertaken in order to determine the effectiveness of the education campaigns.