

Detection of infrasound from the landslide and earthquakes in Taiwan -primary results

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After large earthquakes and tsunamis occur, infrasound emitted from the epicenters and tsunami source areas are often observed. Using triangulation method, identification of the sources are being attempted. Since such phenomena accompanying large motion of ground/sea surface often emit infrasound, landslide is also highly expected to emit the infrasound. In fact, people often reported some uncertain noise just after the landslide occurred. Although less scientific report of infrasound observation from the landslide has been done so far, we try to detect the infrasound emitted from the landslide. In order to achieve the purpose, we started observation of the infrasound in Taoyuan (23.1607°N, 120.7658°E) and Dabu (23.3005°N, 120.6296°E), Taiwan from July 2015. In this paper, we introduce our observation sites and primary results of power spectrum and landslides identification from the infrasound. Furthermore, the infrasound emitted accompanying the M6.4 Kaohsiung (Meinong), Taiwan earthquake (22.871°N, 120.668°E) occurred 33 km away from the Taoyuan observatory at 19:57:27 UTC on 5 February 2016 was observed. The results before and after the earthquake are also shown.

Keywords: infrasound, landslide, Taiwan, Kaohsiung earthquake