

Debris flow involving landslide dam: a case of Mochiyamadani, Miyagawa area, Mie Prefecture in 2011

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Miyagawa area in Mie Prefecture was suffered by heavy rain of the Typhoon Talas in 2011, followed by 2004 rain. Many landslides were induced by both the rains. Pre-existed slow landslides reactivated, while incipient rapid deep seated landslides occurred isolated or at adjacent slope of pre-existed landslides.

In Mochiyamadani, tributary of Miyagawa River, enlargement of 2004 landslide and debris/rock slide at a neighboring slope were occurred at the uppermost course in 2011. The moving mass flowed down as a debris flow, eroded landslide dam which was formed by 2004 rockslide at the middle course, increased its volume, and reached the confluence of Miyagawa River. The debris flow destroyed a check dam and a bridge in the lower course, and flushed a house at the opposite bank of Miyagawa River. Miyagawa River was temporary dammed and raised up river water level.

Keywords: 2011 heavy rain, debris flow, landslide dam, Miyagawa River