

A Hydro-Geomorphological Perspective on the Braunsbach Flashflood 2016

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Abstract

Following an unusual heavy precipitation of 105 mm on 29th May 2016 within 4 hours, intense rainfall events in southern Germany led to severe flash floods and debris flows in several municipalities in the German federal state of Baden-Württemberg. Particularly the south-western German town of Braunsbach witnessed flood outburst with massive amounts of rubbles and muddy sediments. The flash flood, as the combination of surging water with 42,000 m³ of sediment, was responsible for smashing numerous buildings, cars, and town facilities; leaving residents with damages and losses.

Introduction

1 Study Area

2 Methodology

2.1 Rainfall

2.2 Estimation of the material detached from the catchment as landslides

2.3 Regional Land Characteristics

2.3.1 Slope angle

2.3.2 Curvature

3 Results and Discussion

4 Conclusion