

Review of 'The canopy interception-landslide initiation conundrum: Insight from a tropical secondary forest in northern Thailand'

The authors collected and analyzed rainfall interception and soil moisture data at their study site in northern Thailand over a three year period. They examine trends between rainfall intensity, rainfall duration, antecedent precipitation, and throughfall and discuss implications for the effects of canopy interception on the potential for shallow landslide initiation. I think that this manuscript will be of interest to readers of Hydrology and Earth System Sciences. The problem is well motivated and the results generally support the conclusions. The authors have addressed many of the issues raised in previous reviews. In general, I have few substantive comments but think that a few clarifications and presentation of additional data (as noted below) would improve the manuscript.

General Comment: Goal number one of the study is to evaluate rainfall interception by a secondary tropical forest canopy. A large amount of data is presented and I think it would improve the impact of the study if it were possible to synthesize some of it in a few simple ways. For example, would it be possible to determine a canopy storage capacity for this setting from the data?

Section 3.1, Line 25: Explicitly state the motivation for using these rainfall-intensity duration thresholds. I'm guessing it is helpful to roughly identify the types of storms that have the potential to trigger landslides since the effectiveness of interception is known to vary with rainfall intensity and duration.

Page 11, Line 1: There is a lot of focus on antecedent rainfall, but other meteorologic factors may be equally important. For instance, how much does canopy interception at this site depend on the evaporation rate? I imagine this could be critical, especially for the longer events. Evaporation rate could potentially be estimated using data from the hydrometeorological station data.

Page 11, Line 23: Suggest starting a new paragraph with the sentence beginning 'The three largest events....'

Page 12, Line 3: 'While in five of these six....' Some supporting data showing early storage during other storm events needs to accompany this statement.

Page 16, Line 26: The potential failure plane could be close to the surface in some environments. I suggest making this statement more specific to your field site.

Page 18 Line 23 - Page 19 Line 2: Much of this was stated earlier and could be summarized more succinctly so that the focus remains on the new insights gained in this study.

Page 18, Line 6: Potential failure planes could be very shallow in some settings.

Figure 6: Since bulk density varies with depth, I would suggest plotting percent saturation on the y-axis.