

2nd Referee report for manuscript: *Discharge of landslide-induced debris flows: Case studies of Typhoon Morakot in southern Taiwan*

General comments:

1. I still miss explanation or elaboration about Landslide ratio R_L . I haven't heard about this ration before and I think it should be explained in more details. More about that in Specific comments.
2. Jakob 2005: Classes of debris flows should be determined using table 17.3 in Jakob 2005 for better comparison with other worldwide events. Ratio between debris flow volume and deposition area is mentioned in introduction of the reviewed manuscript. I suggest that author tests the equation 17.24 in Jakob 2005 and see what the correlation between these values and calibrated ones is. And also Q_{wp}/V relation suggested in Jakob 2005 (table 17.5) - how do these values correlate with calibrated ones in the manuscript.
3. Melton number could be determined for tested watersheds, because Melton number is widely used in European Alpine space for classifying torrential basins / watersheds and one could make a comparison between local and tested watersheds.

Specific comments:

1. Chapter 2.1: R_L ratio must be explained. Is it A_L/A ration before or after the event? Do you need a landslide cadastre to determine R_L , or maybe landslide susceptibility map? Is field survey necessary? I would include Melton number in this Chapter to enable comparison with other watersheds in other regions.
2. Chapter 3.2.1: Has been Brookfield viscometer, used in this study, used for debris flow rheology research before? In my experience it is hard to determine correct values testing only soil samples with a particle diameter of less than 1mm when it is known that major effect on shear stress is related to more coarse particles (boulders etc). Just a question...
3. Chapter 3.2.3: Usefulness/ value of the empirical equations for ratio Q_{dp}/V proposed in Jakob 2005 could be presented. Just to see what are the Q_{dp}/V values determined in this study and what are the Q_{dp}/V values determined using equations in Jakob 2005.
4. Chapter 4.1. Is it possible to get same modeling results using two different combinations of C_b and C_v ?
5. Chapters 4.1.1 + 4.1.2: MD is much more useful for calibrating Flo2D model than FD. As mentioned in my first report comment n7.
6. Chapter 4.3: If author can get strong correlation between R_L and C_b it could be used for direct determination of Q_{wp}/Q_{dp} ratio.