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Comment

Interactive comment on “Assessment of impact of mass movements on the upper Tayyah valley’s bridge along Shear escarpment highway, Asir region (Saudi Arabia) using remote sensing data and field investigation” by A. M. Youssef et al.

Anonymous Referee #1

Received and published: 23 February 2015

Dear authors and editor, This paper is a basic description of some gravitational processes occurring over a 2km long road section in Saudi Arabia. However the site seems very prone to mass movements and the road potentially at risk, this contribution is only a very superficial report on the area. No significant scientific or technical question is addressed.

In particular, section 5 (Results and Discussion) is a mixture of generalities (definition of “dips” (509) or “circular failure”) which have nothing to do here, with basic observations

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simply referring to pictures. Some kinematic tests for planar failures have been done, but only data of one single discontinuity set are shown for each of the 3 sites. There is no way to understand the fracturing of the rock, which looks much more complicated on the picture than it appears in the text. The authors claim that shear tests and many structural measurements have been done (p502), but these data do not appear anywhere. It is question of a fault crossing the site, but it is not shown in any figures. Presently, the data presented in this paper are much too patchy or superficial to support any interpretation.

In its present state, this text is more a report about some observations done along this road section than a scientific contribution. There is no original contribution in terms of methods, processes, susceptibility mapping, hazard or risk assessment. The quality of the text is very uneven, with numerous mistakes in basic slope stability terms (planner for planar for instance). Even though the area looks interesting for slope stability and risk assessment along roads, more work has to be done to get a significant contribution.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 497, 2015.

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