



Interactive
Comment

Interactive comment on “Landslides and slope stability evaluation in the historical town of Kruja, Albania” by Y. Muceku and O. Korini

Y. Muceku and O. Korini

ymuceku@epoka.edu.al

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Dear Prof. Dr. Thomas Glade and Editor Staff,

We wish to thank Mr. S. Zekan for useful remarks, which have helped us to increase the scientific quality of our paper.

We have analyzed in detail the referee's remarks of Mr. S. Zekan, from which we have the following comments:

Comments of S. Zekan: It is recommended to make a short conclusion about differences between earth motion and debris motion regarding next parameters: the velocity of sliding. Authors' comments: Mr. S. Zekan in his comment said that among the mass

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movements in Kruja town has occurred and earthĳow's type. For the authors, 2 landslides have occurred on flysch rocks aren't exactly the earthĳow type. They are the earthslide type. For that, we are analyzing in detail why these mass movement are included in earthslide class. From many geotechnical investigations carried out in the urban area Kruja town, we have distinguished three types mass movements, which are earthslides, rocks topple and fall, as well as, debris flow. Their classification we have done based on Cruden and Varnes, 1986 and 1996. Also, the movement hasn't been simultaneously occurred in whole of earthslide body. It was different from one to other part of landslides body. So, we have the differential movements within displaced material. Whereas, the earthflow are defined by Cruden and Varnes (1989) as spatially continuous movement in which surfaces of shear are short-lived, closely space, and usually not preserved. Therefore, this mass movement we have included in earthslide group (Cruden and Varnes, 1986 and 1996). But, it should be noted that on earth slide's body, which extend in south of Kruja town, as a result of rainfalls, some small earthflows (10.0 – 15.0m long, 5.0-10m wide and 1.5 - 2.0m deep) have been occurred last 3 years.

Comments of S. Zekan: Conclusion about differences between earthĳow and debris ĳow velocity. Authors comments: The debris flows occurred in eastern part of Kruja town on 2004 year have shown that in few minutes was accumulated through the Kruja streets about 450.0m³ displaced material from 2 debris flows occurrences. From above analysis is very easy to understand that the velocity of debris flow is higher than earth slide.

Comments of S. Zekan: The making a short conclusion about differences between earthĳow and debris ĳow regarding to depth of sliding, hazard and risk, causes of the sliding, types of rocks-soils in and out of the landslide body and general differences at the location Kruja in Albania. Authors comments: We are agree. These remarks we can reflect to the final revised paper.

Finally, we really thanks Prof. Dr. Thomas Glade and Editor Staff for everything have

done to help us in paper's publication.

Best regard, Y. MUCEKU

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