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Hydrology and Earth System Sciences Discussions

Interactive comment on "Landslide susceptibility mapping of Cekmece area (Istanbul, Turkey) by conditional probability" *by* T. Y. Duman et al.

T. Y. Duman et al.

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The reply of the authors fro the comment written by J. Siebert is as follow:

As can be known, P(A│Bi) value denotes the occurrence of a landslide on sub-classes of each parameter and P(Bi) indicates the occurrence of each of sub-classes of each parameters in the study area. Conditional probability values, P(A), defining the probability of landsliding under the certain conditions of sub-classes for each parameter is obtained from the multiplication of these two probability values mentioned above (Eq. 7 in the manuscript).

Using this equation 7, P (A) values of each sub-classes of each parameter are calculated (Table 1 in the manuscript). To produce the final susceptibility map, the P (A) values have to be integrated into a data matrix including all data of this study in row and column format. Then, summing the P (A) values of each data row, total P (A) is obtained. Consequently, these total P (A) values on each row are the susceptibility val-

ues of landsliding in the study area. Finally, the resultant susceptibility map is produced using this total P (A) value column.

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