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Interactive comment on “Modeling relationship between runoff and soil properties in dry-farming lands, NW Iran” by A. R. Vaezi et al.

Anonymous Referee #1

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The MS entitled “Modeling relationship between runoff and soil properties in dry-farming lands, NW Iran” has reported runoff measured at the gridded points in NW Iran and its relation to rainfall and soil properties. The regional study in the semi area in Iran could give an overall impression on soil and water erosion and further the understanding of runoff generation. The value of those experiments has not been seen in the paper starting from the introduction to the conclusion. However, this MS focused on very simple correlations between runoff and soil properties and mistook it as modeling. Although rainfall was significantly correlated to rainfall features such as El30, such correlation was deliberately ignored in discussion. As the soils contain high concentration of lime, it is expected that sealing can be a main reason for runoff generation due to infiltration excess, but this mechanisms was not strongly supported by the data presented. E.g the runoff coefficient measured from the plots was generally very low

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(<8%) on the 9% slope under the rainfall that can be as high as 18 mm. Final infiltration rate rather than initial infiltration rate was presented, showing no correlation with soil aggregate stability. I was confused with the method of sampling 0.5 l water from the collection tank to measure soil volume. In addition, the Introduction is too long to identify the logic flow and foci due to a lot of repetitions of reviewed literatures. The discussion is not relevant to the results as the so-called model does not support that infiltration excess mechanism is responsible for generation of runoff in the region. In this situation I would suggest to decline for publication in the journal.

Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, 7, 2577, 2010.

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