

Interactive comment on “Identification of vulnerable areas to soil erosion risk in India using GIS methods” by H. Biswas et al.

Anonymous Referee #2

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I appreciate that work that attempts to provide information for policy maker have been targeted to open access journal. It reacts on new administration reform and provide synthetic, spatially distributed data for the new state for the first time.

1. Introduction: 1.1 p.1612 , rows 25-26 until p. 1613, r. 5, are concerning global trends, not India or study area, contain redundant info. The information about state of the art in India and study area would be more suitable. 1.2 p.1613, r. 8-19, hard to comprehend

2. Study area: 2.1 p. 1615 authors name the agro-eco regions, without providing further explanation what this division means, and moreover this regions are not reflected in the study, e.g., according to SER. Authors introduced abbreviations that are not used throughout the study. Authors analyze results according to districts, but here

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is no information about differences in physiogeographic, land use characteristics, etc. that are later named. Decrease understanding of the results.

2.2 Methods 2.2.1 I recommend to try to simplify, divide the text (in order to increase readability), clearly describe the source for each methodical steps (own vs. previously published methodology), and if possible provide parameters and values used for the different equations, explain the choice of weights and scores more clearly. 2.2.2 p.1619: r.7-9, is the 12% of the study area (1.38 M ha) with the highest soil erosion >40 Mg/ha/y so negligible, that much lower average values (30 Mg/ha/y) could be used? Does this approach not omit very important erosion hot-spots, needed to evaluate and tackle by managers?

3. Results Authors analyze results according to districts, but here is no information about differences in physiogeographic, land use characteristics, etc. that are later named. Decrease understanding of the results. More explicative (maybe a map?/table) comparison for whole state and maybe for each district (physiogeographic characteristics and SER) would be beneficial for managers and readers.

4. Conclusion There is no discussion about precision of the results, according to used methods and source data information.

Tables: 1 – difficult to read, improve graphic design, add cross-over points 2. source 3. consider usage km² instead ha, and simplify the long numbers (in tables, figures and text) by using “10⁶” instead M, or 1000 000 ha

Figures: Fig.1 not readable, increase the font of the map labels, increase the size of the map itself, include description (district, states) and name in the map

Fig 2 increase the size of the map, unit the legend, source of data; the labels for surrounding states are redundant -is not clear which part of Telangana border correspond to which neighboring state Fig 3, Fig. 5: use km² instead of ha, is hardly readable; increase the size of the map, unit the legend, source of data; the labels for surrounding

states are redundant -is not clear which part of Telangana border correspond to which neighboring state

Fig 4 explain what 'T' means in the description

Interactive comment on Solid Earth Discuss., 7, 1611, 2015.