

Interactive comment on “Integrated spatial assessment of wind erosion risk in Hungary” by László Pásztor et al.

Anonymous Referee #2

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The study addresses an important scientific question in the field of wind erosion risk. The achieved results are interesting and valuable contributions to the assessment of wind erosion risk in a countrywide scale. However some minor changes could improve the manuscript.

The language of the manuscript is understandable, however there are some grammatical errors and inaccurate expressions, thus a check of the text is needed.

Introduction

Some restructuring of the introduction part could help to understand the authors approach. Before mentioning the affecting factors (anthropogenic effects and vegetation) the inclusion of a short paragraph that summarizing the main factors would be useful.

C1

The paragraphs between Line 68-87 describe the most important factor of the process (soil properties), which is the central part of the study. This part should appear earlier, before the other factors (vegetation, anthropogenic effects). Moreover these sections discuss general information about soil texture and soil mapping thus this text should come before the introduction of the specific information related to the study area.

Line 43-48: This paragraph is very fragmented, the connection between the sentences is not clear (e.g. what is the connection between these statements: Wind erosion "is accelerated by anthropogenic effects" and "Researches revealed that wind erosion causes more serious problems, than it had been supposed earlier". Are the mentioned researches revealed connection between anthropogenic activities and the increased wind erosion?

Materials and methods

A small map showing the location of Hungary in Europe could help the reader to locate the country.

Line 133-139 Wind tunnel measurement data: The spatial distribution of the sampling point are not homogenous on the study area. To what extent are these sampling points are representative to the actual soil distribution of the area? How many samples represent the different texture classes of Table 1. and what was the variability of the threshold wind velocity values in the different texture classes?

Line 242-244: Please use the correct names of land use classes based on the Corine CLC nomenclature, e.g. "Urban fabric" instead of urbanized areas, or "Forest and semi-natural areas" if it refers to the whole "Class 3" not only to "3.1. Forests". Similarly the used term "under agricultural cultivation" means the whole Class 2 "Agricultural areas" including "2.3 Pastures" and "2.4 Heterogeneous agricultural areas"? Wind erosion susceptibility of Pastures and Heterogeneous agricultural areas could be different due to their vegetation type e.g. pastures have permanent vegetation cover.

C2

Conclusion

The authors provide a good conclusion of the result and comparison with other research results.

Line 335: Table 4 compares the extent of wind-susceptible areas based the results of the present research and Borelli's data. The heading of the first column is "Spatial distribution based on wind tunnel measurements". Are these data were based on only the wind tunnel measurements or they are the result of the combined modelling. In the second case please correct the heading.

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