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Hydrology and Earth System Sciences Discussions

Interactive comment on "Use of the 3-D scanner in mapping and monitoring the dynamic degradation of soils. Case study of the Cucuteni-Baiceni Gully on the Moldavian Plateau (Romania)." *by* G. Romanescu et al.

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We thank the referee for the comments and suggestions.

The investigations carried out between 2008 and 2010 revealed a substantial transformation in what concerns the gully's depth, and less a horizontal one. This is due to the extremely high difference in elevation. The most important changes occurred when precipitations exceeded the average values of the area. For this reason we highlighted

the evolution of the gully in stages, specific to an excessive continental weather, with torrential rainfall. From a spatial point of view, figure 15 highlights the transformation that the gully has underwent between 2008 and 2010. A map that features the stepwise evolution, for each of the measurements taken, will be produced.

Specific comments

1. In the final version, the relevance of the study will be emphasised and references to previous publications will be made.

2. A detailed description of the method employed is already available to us, and is set to be included in the final text.

3. The paragraph from page 6192 will be moved to the "Regional setting" section.

4. We meant the accuracy by which the measurements were obtained, not that resulted after data processing. In the latter case, the results are different.

Technical corrections

1. Page 6908, line 12. The gully has indeed attacked the archaeological site, damaging ca. 30% of its surface.

2.-7. All errors will be corrected.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 8, 6907, 2011.