

## ***Interactive comment on “Analysis of soil moisture condition under different land uses in arid region of Horqin Sandy Land, northern China” by C. Niu et al.***

### **Anonymous Referee #1**

Received and published: 4 August 2015

The introduction needs a initial sentence that will inform the reader how important is the land use to keep a sustainable environmental management See here some references that can help to write this initial introduction that will make your paper very consistent Parras-Alcántara, L., Lozano-García, B. Conventional tillage versus organic farming in relation to soil organic carbon stock in olive groves in Mediterranean range-lands (southern Spain). (2014) *Solid Earth*, 5 (1), pp. 299-311. Cited 2 times. DOI: <http://dx.doi.org/10.5194/se-5-299-2014>

Biro, K., Pradhan, B., Buchroithner, M., Makeschin, F. 2013. Land use/land cover change analysis an its impact on soil properties in the Northern part of Gadarif region, Sudan. *Land Degradation & Development*, 24: 90- 102. DOI 10.1002/ldr.1116 Leh, C929

M., Bajwa, S., Chaubey, I. 2013. Impact of land use change on erosion risk: and integrated remote sensing geographic information system and modeling methodology. *Land Degradation & Development*, 24: 409- 421. DOI 10.1002/ldr.1137

Mekonnen, M., Keesstra, S.D., Stroosnijder, L., Baartman, J.E.M., Maroulis, J., 2015-*Land Degradation and Development*. Soil conservation through sediment trapping: a review. DOI: 10.1002/ldr.2308 Zhao, G., Mu, X., Wen, Z., Wang, F., and Gao, P. Soil erosion, conservation, and Eco-environment changes in the Loess Plateau of China. *Land Degradation & Development*, 24: 499- 510. 2013. DOI 10.1002/ldr.2246

in the paper there is a need to show how the importance of the soil moisture for the soil system and soil functioning in the introduction Gabarrón-Galeote, M.A., Martínez-Murillo, J.F., Quesada, M.A., Ruiz-Sinoga, J.D. Seasonal changes in the soil hydrological and erosive response depending on aspect, vegetation type and soil water repellency in different mediterranean microenvironments. (2013) *Solid Earth*, 4 (2), pp. 497-509. Cited 4 times. DOI: <http://dx.doi.org/10.5194/se-4-497-2013> Hewelke, E., Szatyłowicz, J., Gnatowski, T., Oleszczuk, R. Effects of soil water repellency on moisture patterns in a degraded sapric histosol. (2014) *Land Degradation and Development*. Article in Press. Cited 1 time. DOI: <http://dx.doi.org/10.1002/ldr.2305>

and also you should highlight that the soil system is a key part of the Earth System and the soil moisture need a broad view too... and the soil system offers services.. this is why is necessary to study the soil moisture

Hewelke, E., Szatyłowicz, J., Gnatowski, T., Oleszczuk, R. Effects of soil water repellency on moisture patterns in a degraded sapric histosol. (2014) *Land Degradation and Development*. Article in Press. Cited 1 time. DOI: <http://dx.doi.org/10.1002/ldr.2305>

Keesstra, S.D., Geissen, V., van Schaik, L., Mosse, K., Piirinen, S., 2012. Soil as a filter for groundwater quality. *Current Opinions in Environmental Sustainability* 4, 507-516. doi:10.1016/j.cosust.2012.10.007 Brevik, E., Cerdà, A., Mataix-Solera, J., Pereg, L., Quinton, J., Six, J., and Van Oost, K.: The in-

terdisciplinary nature of SOIL, SOIL, 1, 117-129, doi:10.5194/soil-1-117-2015, 2015.

the paper is a good contribution and this will help to make the paper more consistent

Sincerely Artemi Cerdà

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Interactive comment on Solid Earth Discuss., 7, 1979, 2015.

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