

Interactive comment on “Responses of vertical soil moisture to rainfall pulses and land uses in a typical loess hilly area, China” by Y. Yu et al.

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Dear author, Your paper is an excellent contribution as you shown that vegetation determines the hydrological cycle and that forest is not a better manager of the soil water resources than grassland and scrubland. Your findings are of great help to the scientific community and I highly support the publication of your research. I suggest that in the introduction you will highlight the importance of the soil moisture in the Earth System See below some citations can be of help for this The effect of soil moisture on water repellency Hewelke, E., Szatyłowicz, J., Gnatowski, T., & Oleszczuk, R. (2014). EFFECTS OF SOIL WATER REPELLENCY ON MOISTURE PATTERNS IN A DEGRADED SAPRIC HISTOSOL. *Land Degradation & Development*. DOI: 10.1002/ldr.2305 Santos, J. M., Verheijen, F. G., Tavares Wahren,

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F., Wahren, A., Feger, K. H., BernardãJannin, L., ... & Nunes, J. P. (2013). SOIL WATER REPELLENCY DYNAMICS IN PINE AND EUCALYPT PLANTATIONS IN PORTUGAL–A HIGHãRESOLUTION TIME SERIES. *Land Degradation & Development*. DOI:ã10.1002/ldr.2251

Soil moisture and soil and water conservation Opolot, E., Araya, T., Nyssen, J., AlãBarri, B., Verbist, K., & Cornelis, W. M. (2014). EVALUATING IN SITU WATER AND SOIL CONSERVATION PRACTICES WITH A FULLY COUPLED, SURFACE/SUBSURFACE PROCESSãBASED HYDROLOGICAL MODEL IN TIGRAY, ETHIOPIA. *Land Degradation & Development*.DOI:ã10.1002/ldr.2335ã Bizoza AR. 2014. THREE-STAGE ANALYSIS OF THE ADOPTION OF SOIL AND WATER CONSERVATION IN THE HIGHLANDS OF RWANDA. *Land Degradation and Development*, 25, 360–372. | DOI: 10.1002/ldr.2145 Batjes NH. 2014. Projected changes in soil organic carbon stocks upon adoption of recommended soil and water practices in teh Upper Tana River Catchment, Kenia. *Land Degradation and Development*, 25, 278–287. DOI: 10.1002/ldr.2141

Water productivity is related also to climate change. you demonstrate that scrublands and grasslands are more efficient than woodlands See here Qadir, M., Noble, A. D., Chartres, C. 2013. Adapting to climate change by improving water productivity of soil in dry areas. *Land Degradation & Development*, 24: 12- 21. DOI 10.1002/ldr.1091

Interactive comment on Solid Earth Discuss., 6, 3111, 2014.

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