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Hydrology and Earth System Sciences Discussions

Interactive comment on "Reference crop evapotranspiration derived from geo-stationary satellite imagery – a case study for the Fogera flood plain, NW-Ethiopia and the Jordan Valley, Jordan" *by* H. A. R. de Bruin et al.

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I applaud the approach to use readily available geostationary satellite images to determine actual evapotranspiration (ETa). However the effect of wind does not appear to be represented in a sufficient way in the approach. Depending on region, altitude and season wind is an important component of the evaporative process. Studies show that (potential) ET has been declining globally (over land surfaces) and that (declining) wind speeds have been the primary agent of this ET decrease. Apart from a small

paragraph on p. 4939 the effect of wind is not mentioned and I would like to see a more detailed discussion how wind is incorporated in the approach. An approach that takes into account the effects of wind directly through some kind of measured/modeled data (in the Penman-Monteith equation) rather than relying on Makkink would be preferable in my opinion. In addition I would like you to always give correlation results (goodness of fit/correlation coefficient, significance) for your regression results. The reader should be able to judge by his own rather than to rely on sentences like "The correspondence is very good".

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 4925, 2010.