

Interactive comment on “Elusive drought: uncertainty in observed trends and short- and long-term CMIP5 projections” by B. Orlowsky and S. I. Seneviratne

B. van den Hurk (Editor)

hurkvd@knmi.nl

Received and published: 16 April 2013

The manuscript describes a comprehensive analysis of historical trends in SPI and soil moisture anomalies (SMA), and compares these to historical and future CMIP5 simulations. An analysis of these trends and projections shows basically that natural variability and relatively minor trend values dominate the SPI picture, while larger signal to noise ratio's pick up much clearer signals of drought trends when considering SMA.

The review process had been very thoroughly carried out by Henny van Laanen and Jamie Hannaford and the authors, and has lead to a much clearer manuscript with

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respect to definitions of drought, methodologies and the notion of uncertainty versus natural variability. Some issues were noted but are somewhat out of scope for this paper, like the notion that the coupled GCMs did give an indication of the Sahel drought in spite of absence of observed SST forcing, and that the (natural) variability of the system - now treated as constant in time for the signal/noise calculations - may actually change in future climate conditions.

A valuable contribution to the literature of drought identification and attribution.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 13773, 2012.

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