

Manuscript Review – HESS

Ref #: 2011-218

Title: Effects of climate model radiation, humidity and wind estimates on hydrological simulations

Authors: Haddeland et al.

This manuscript evaluates the impact of making bias corrections (radiation, humidity, wind) on the predictions made by climate models.

The paper is relevant, appropriate for HESS readers and well written.

The main result: that it is more important to do bias corrections on the precipitation makes intuitive sense as does the result that bias correction for radiation, humidity and wind makes the most difference (to evapotranspiration and runoff) in energy-limited regions also makes intuitive sense.

I had a few minor comments. Otherwise, publish it!

Comments

1. page 3, lines 10-14. P and T may be important in cold regions (ice/snow) but in warm regions, P and solar radiation would be the key variables.
2. page 10, lines 28-29. Nice point about the dry places.
3. Figures 4-5. I could not easily see the dotted lines (ECHAM-BC, IPSL-BC). Can you change the symbols or use an extra colour.
4. Figure 7. Caption is wrong. (ab) for LPJ, (cd) for VIC, etc.