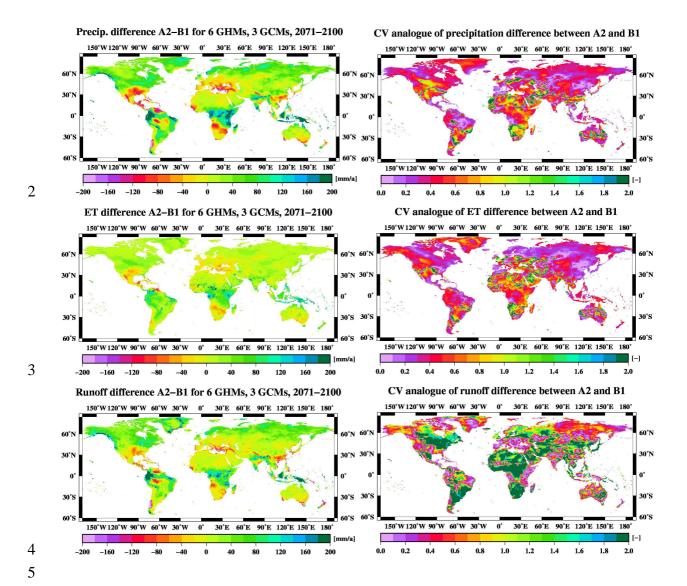
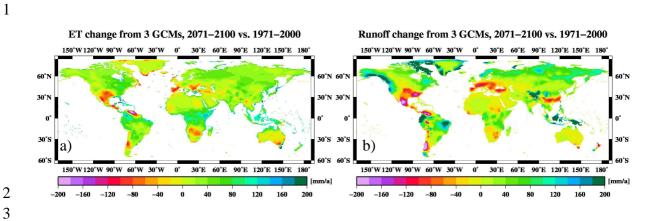
## 1 Supplementary material

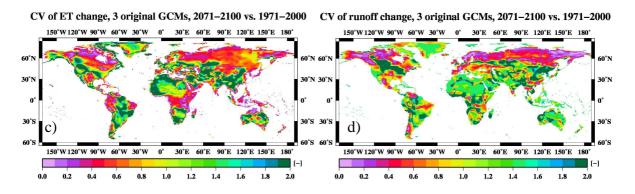


**Figure S1**: Absolute differences (mm/d; left column) and CV analogue (right column) of differences in the projected annual ensemble mean change between the A2 and B1 scenarios for precipitation from the 3 GCMs (upper row) as well as for evapotranspiration (middle row) and runoff (lower row) from 18 simulations (6 GHMs and 3 GCMs; note that only 6 GHMs were running B1)

For the B1 scenario, results from six GHMs were available, and the comparison of projected changes to the A2 scenario is limited to simulations from these six GHMs. Figure S1 (left

column) shows the differences between the A2 and the B1 scenario in the projected ensemble mean changes for precipitation (from 3 GCMs), evapotranspiration and runoff (from 6 GHMs and 3 GCMs). In order to compare uncertainty caused by the choice of scenario to the GHM and GCM induced uncertainties, a CV analogue is computed where the difference between the projected A2 and B1 changes is divided by the mean A2 change (Figure S1, right column).





**Figure S2**: Results obtained directly from the output of the 3 GCMs for evapotranspiration (left column) and runoff (right column): Mean future changes [mm/d] following the A2 scenario for 2071-2100 compared to 1971-2000 (a, b), and the CV of these changes from the 3 GCMs (c, d).