Figure S1. Synthesized values of trends per degree GMST rise for Soil moisture (top left), PET (top right), precipitation (bottom left) and temperature (bottom right) for region WE. Black bars are the average trends, colored boxes denote the 95% CI. Blue represents observations and reanalyses, red represents models and magenta the weighted synthesis. Coloured bars denote natural variability, white boxes also take representativity / model errors into account if applicable (see Section on Methods). In the synthesis, the magenta bar denotes the weighted average of observations and models and the white box denotes the unweighted average. Soil moisture trends are based on standardized data, the other trends are absolute trends.
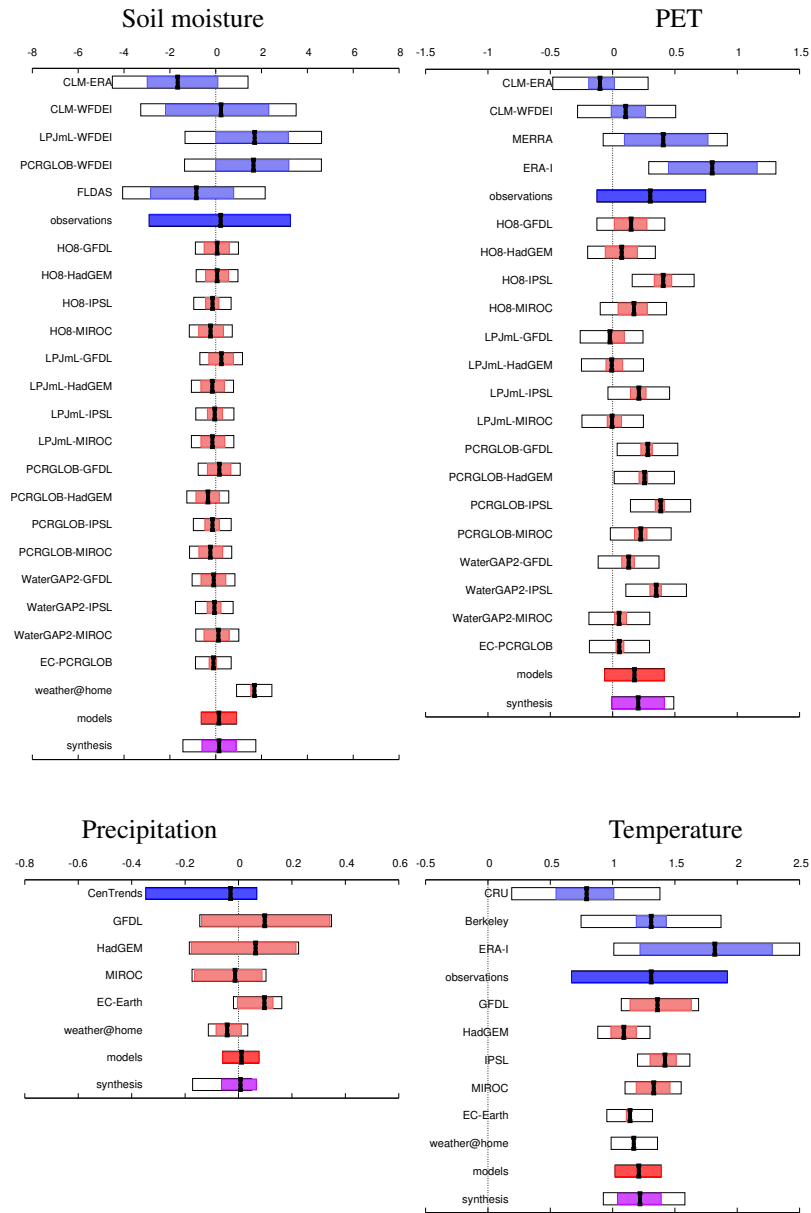
Soil moisture

PET

Precipitation

Temperature

Figure S2. As for Fig. S1 but for region EE

Soil moisture

PET

Precipitation

Temperature

Figure S3. As for Fig. S1 but for region NS

Soil moisture
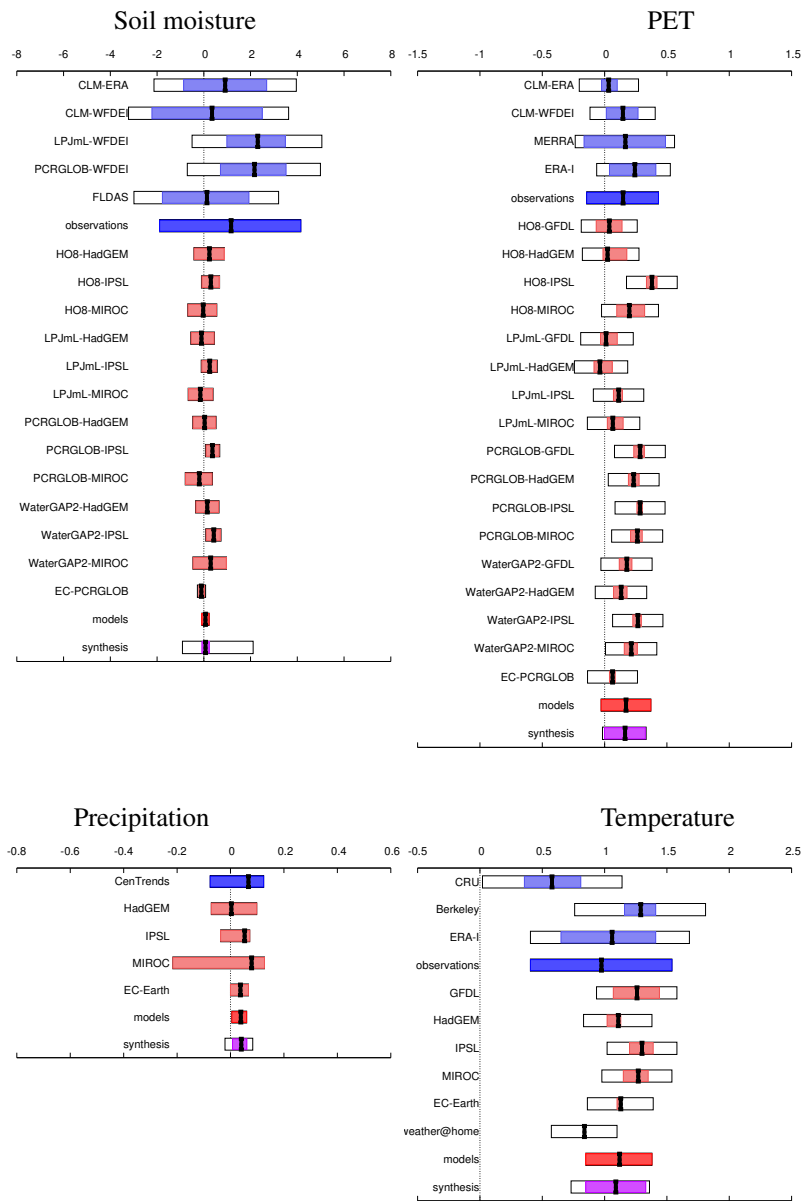
PET

Precipitation
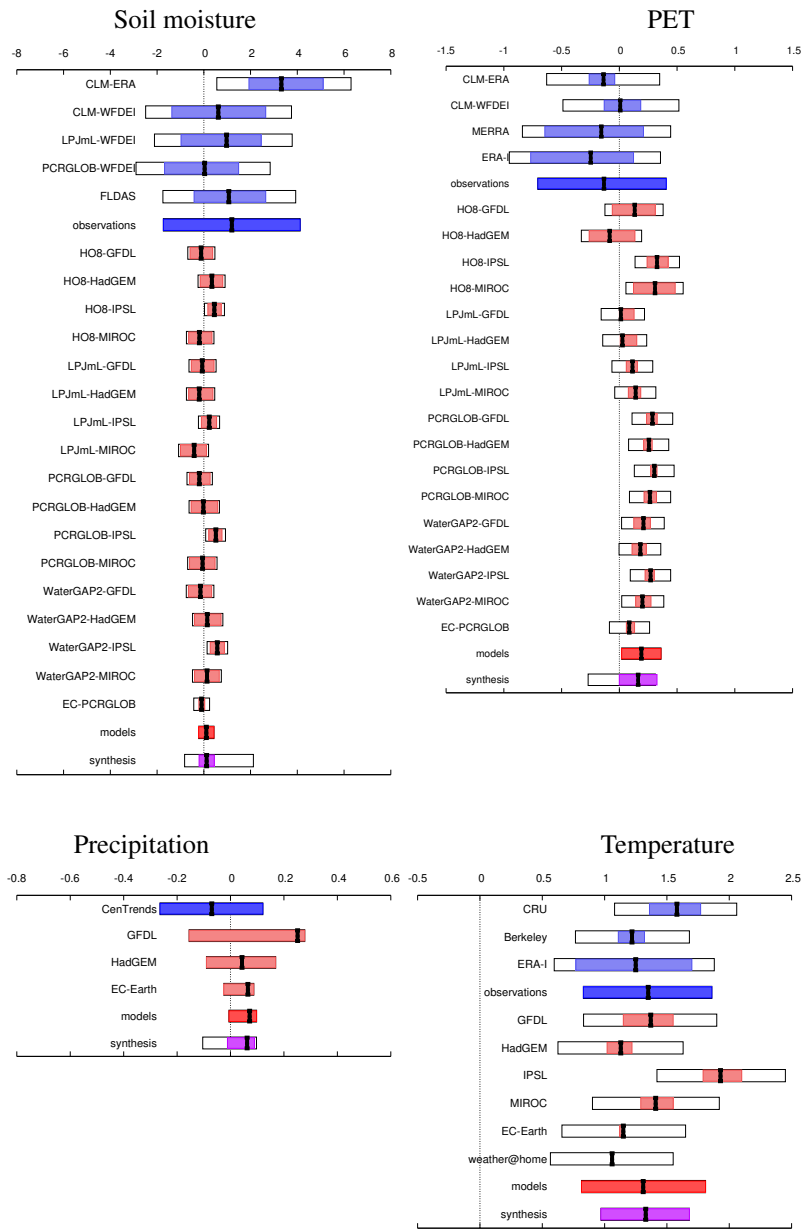
Temperature

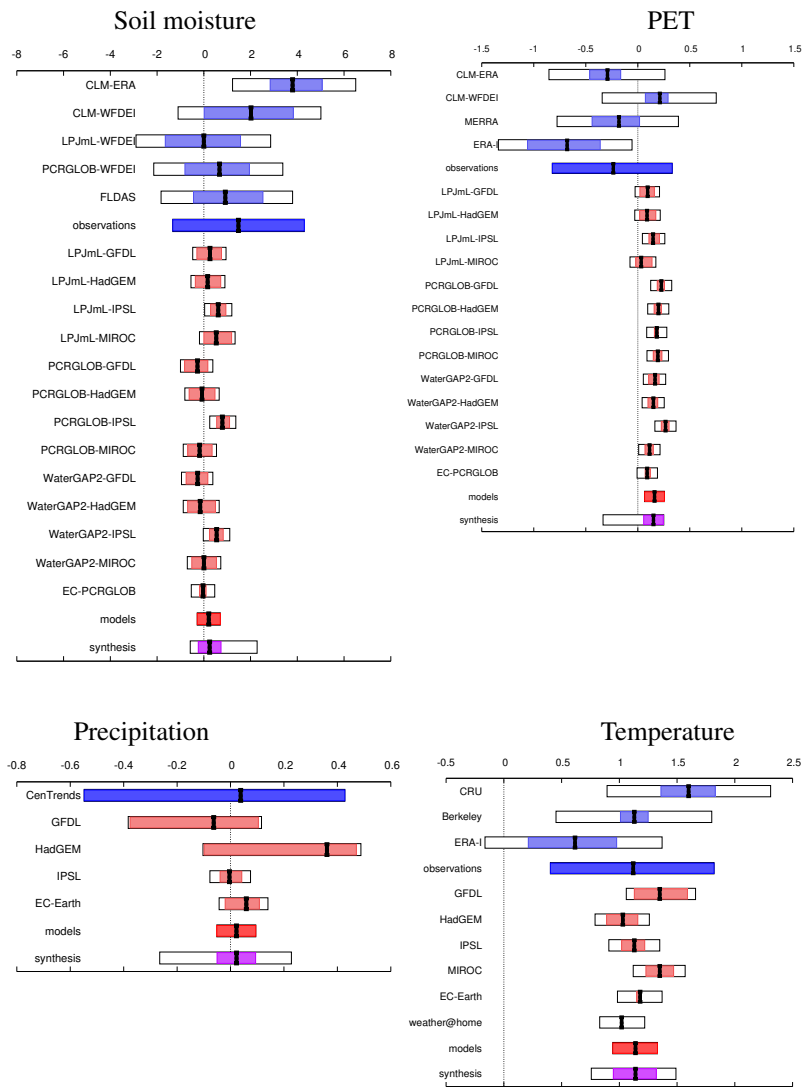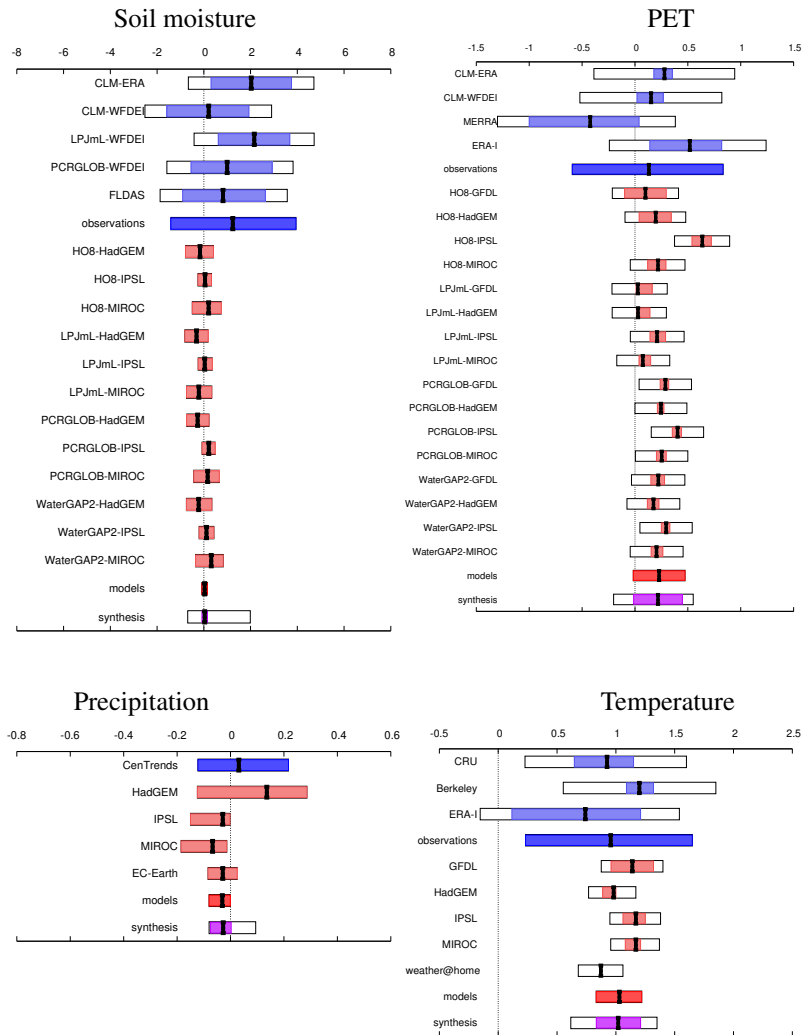**Figure S4.** As for Fig. S1 but for region NK

Figure S5. As for Fig. S1 but for region CK

Figure S6. As for Fig. S1 but for region SS