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Supplement of

Freshwater resources under success and failure of the Paris climate agreement

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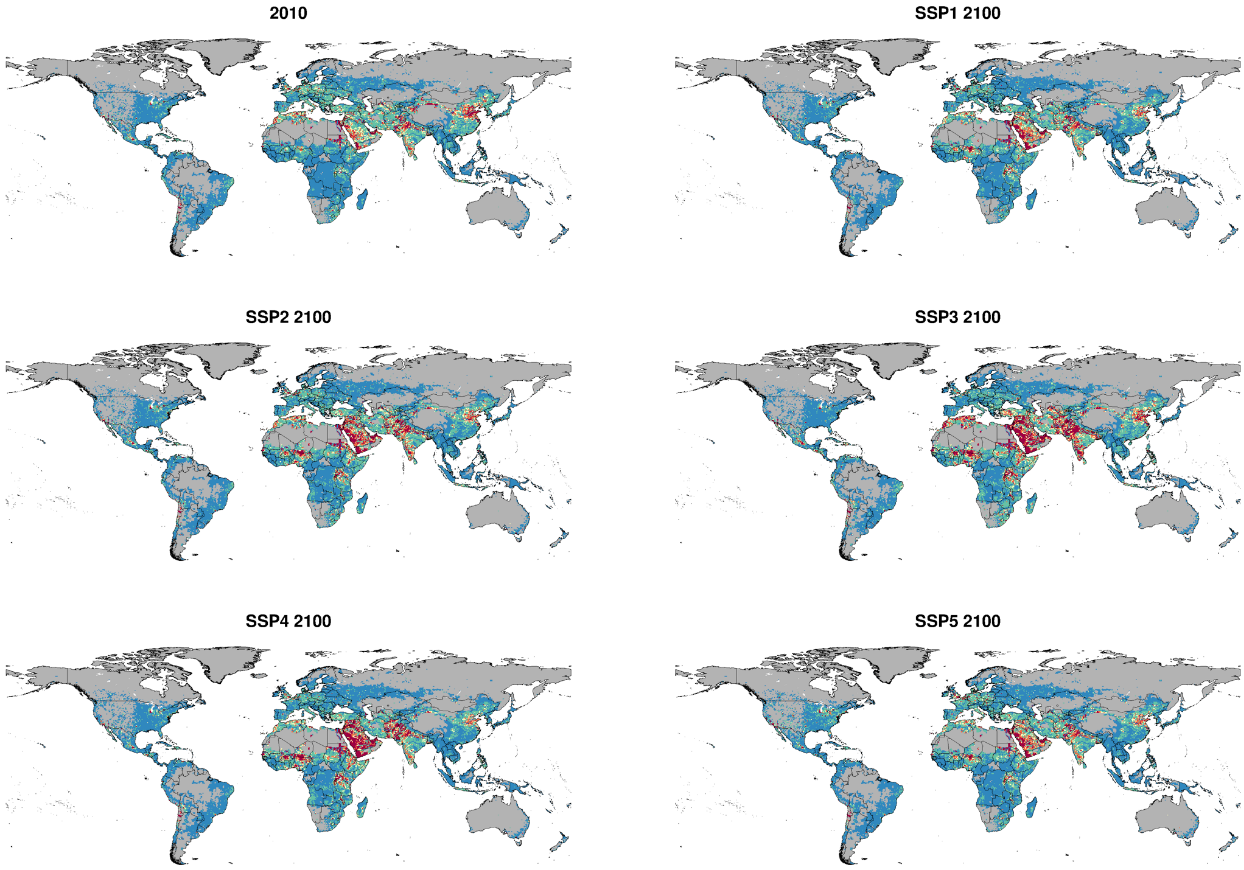

Figure S1: Spatial patterns of water crowding in 2010 and for five different population scenarios in 2100 under current water availability, i.e. assuming no climate change.

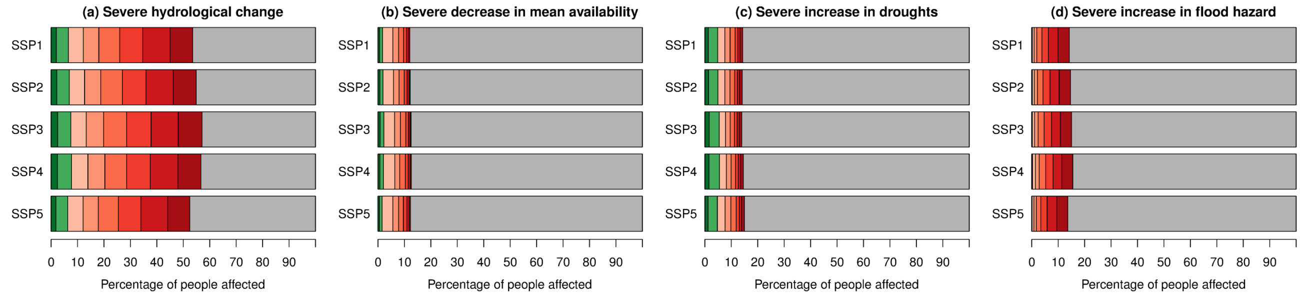

Figure S2: Proportion of total population more likely than not exposed to severe hydrological change at different levels of ΔT_{glob}.

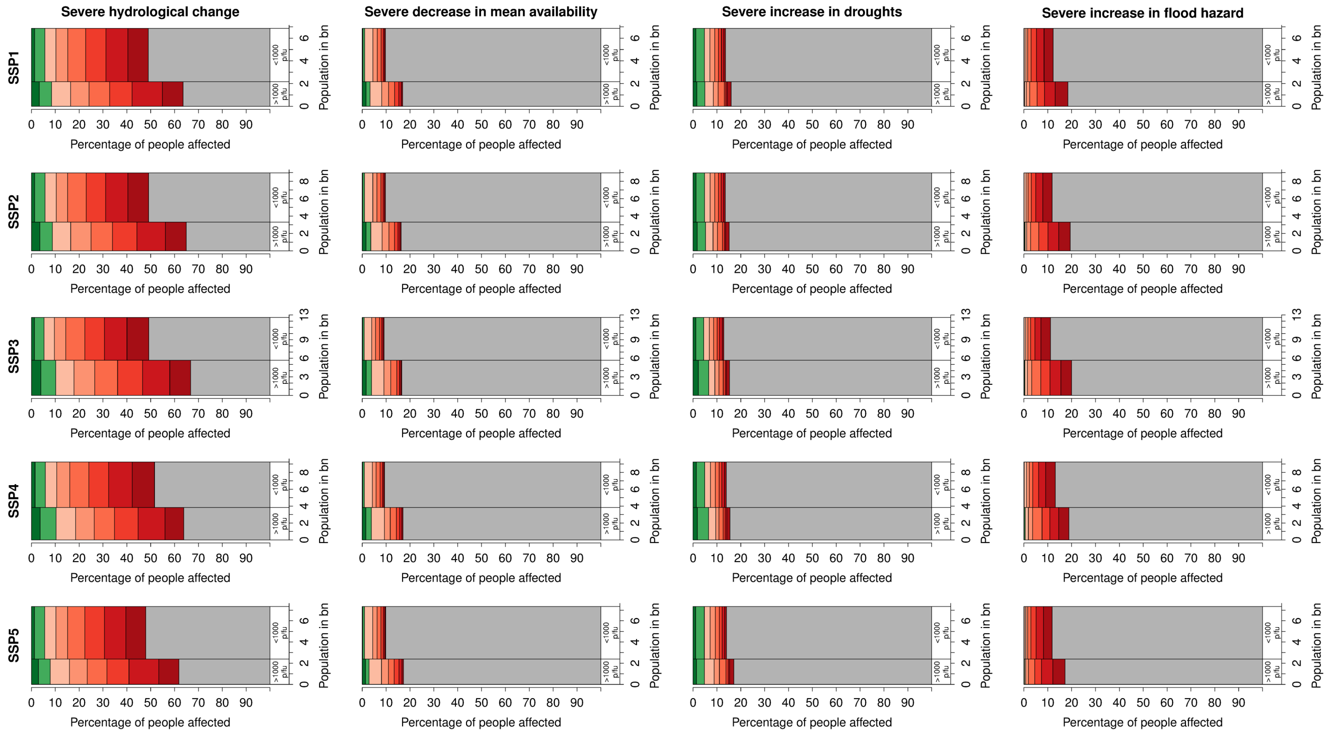

Figure S3: Fraction of population in 2100 exposed to severe hydrological change at different levels of ΔT_{glob} divided over two water scarcity categories: population already experiencing absolute water scarcity (>1000 p/fu) in the absence of climate change and rest of population (≤1000 p/fu). The total number of people in each class is given on the y-axis, and the fraction of people exposed to sever hydrological change in each class is given on the x-axis.

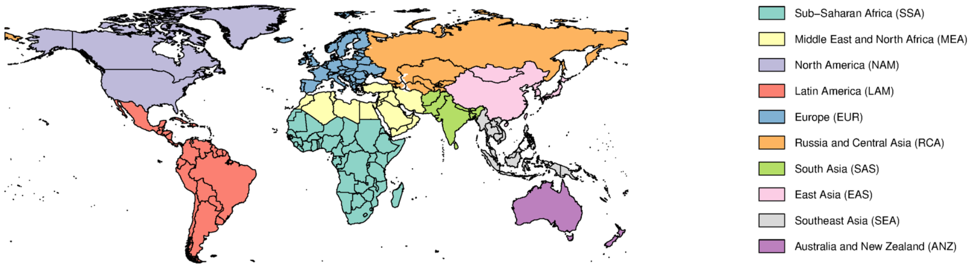

Figure S4: Map of world regions.

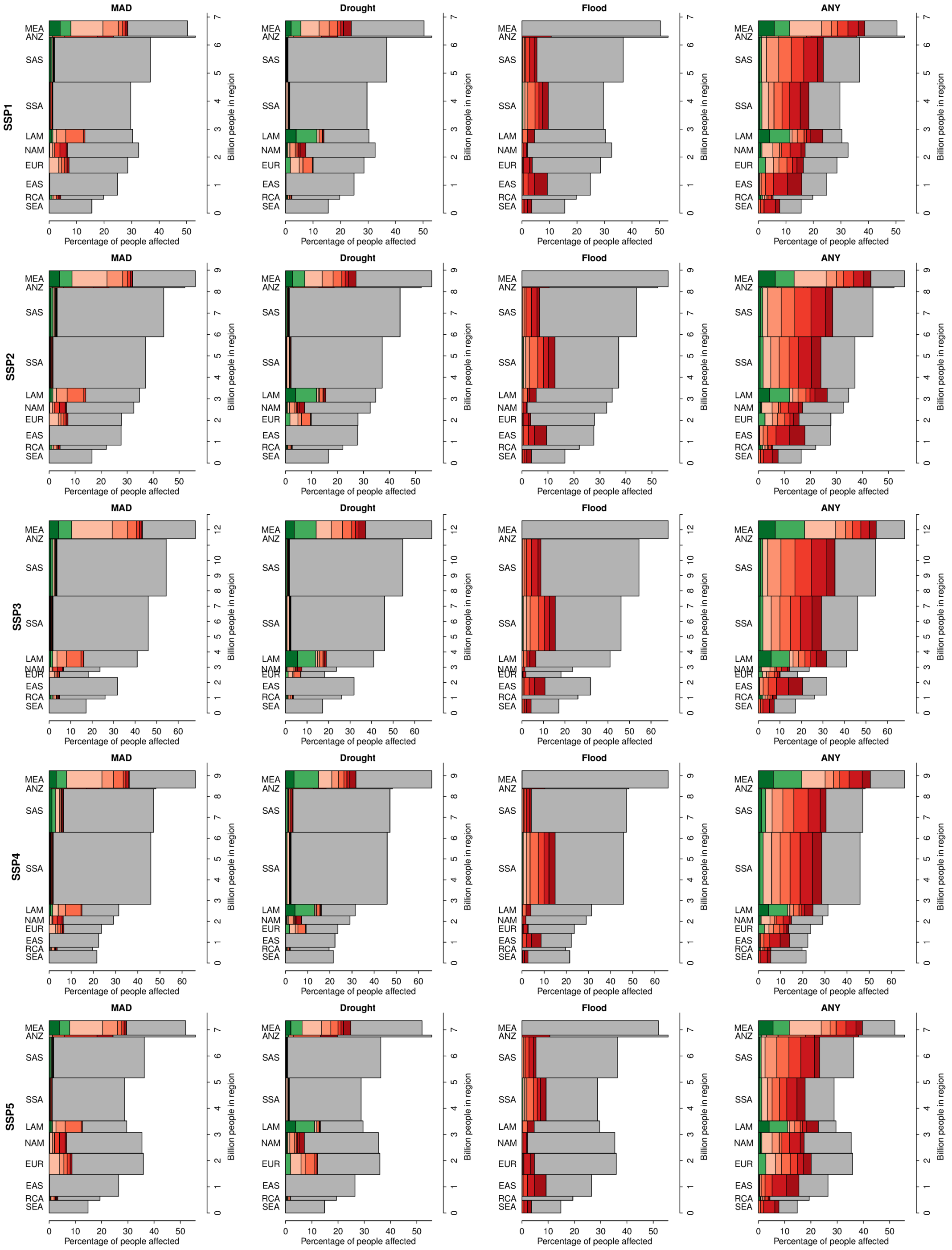

Figure S5: Proportion of population in 2100 in different world regions that would experience absolute water scarcity (>1000 p/fu) under present-day climate conditions (total length of bar) and be *more likely than not* exposed to severe hydrological change at different levels of ΔT_{glob}.

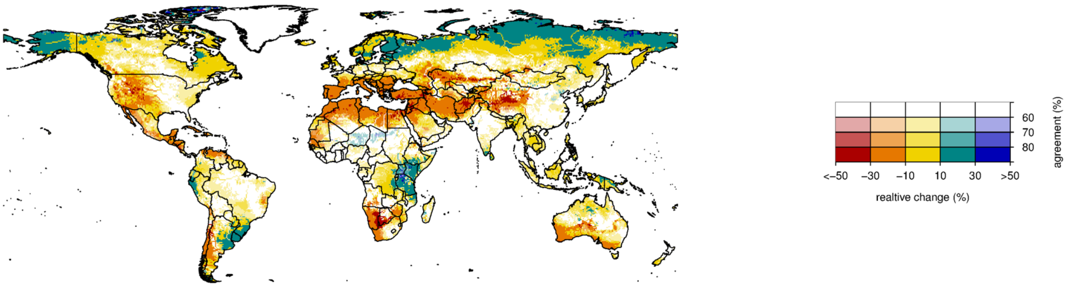

Figure S6: Relative change in MAD compared to control simulation for a ΔT_{glob} (above pre-industrial level) of 2.5 °C. Color hues show the multimodel mean change, and saturation shows the agreement on the sign of change across all GCMs (percentage of GCMs agreeing on the sign). Because ΔT_{glob} for the control simulation is 0.6 °C, the changes are representative for 1.9 °C additional warming relative to the control simulation and can thus be compared to the changes for 2 °C additional warming shown in Fig. 1 in Schewe et al. (2014).