## **Supplementary Information**

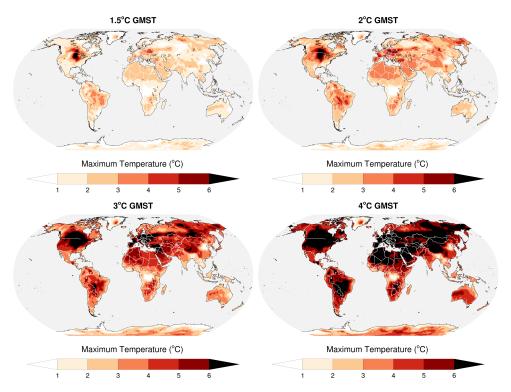


Fig. S1 Maximum absolute summer maximum temperature increase with respect to pre-industrial levels. Increase in absolute maximum summer maximum value of monthly maximum temperature (TXx) under different global warming levels simulated by MPI-GE, relative to absolute maximum TXx in the pre-industrial climate at  $0^{\circ}$ C of global warming. The simulated maximum temperatures represent the 99.5th percentile value for each distribution minus the 99.5th percentile value for the pre-industrial distribution at each grid cell.

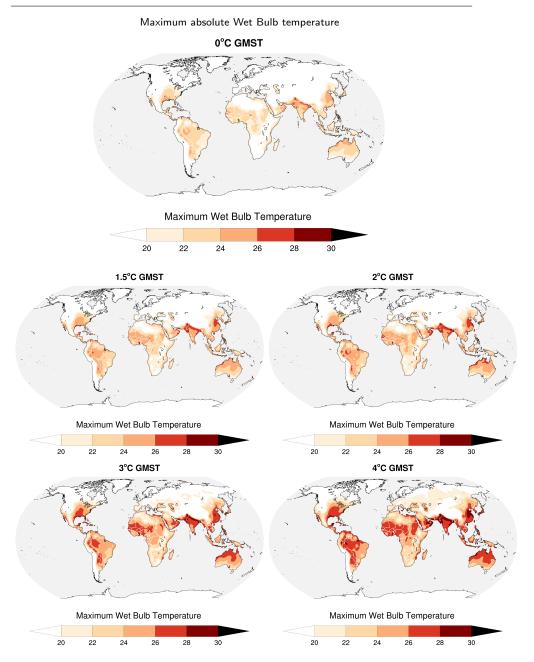
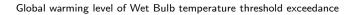


Fig. S2 Uncorrected maximum absolute extreme Wet Bulb temperatures at different global warming levels. Maximum uncorrected Wet Bulb temperatures at different global warming levels,



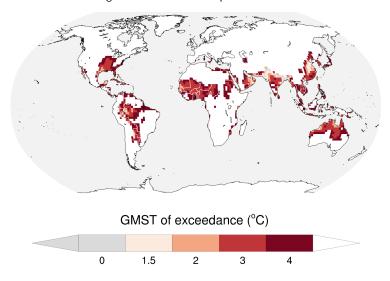


Fig. S3 Global warming level of exceedance of extreme uncorrected Wet Bulb temperature threshold. Global warming level measured as GMST that exhibits exceedance of the uncorrected wet bulb temperature threshold (W  $> 26^{\circ}$ C) with probability of 1% or higher.