

Figure 1: Illustration of the methodology. Damage functions showing impact in a given year against increase in global mean temperature (1a) are combined with the distribution of the increase in temperature in that year (1b) to produce a distribution of impacts in that year (1c). The individual lines in 1a are the damage functions constructed from different climate model patterns. The dotted vertical lines in 1c show the 10th and 90th percentiles, and the solid vertical line shows the median.

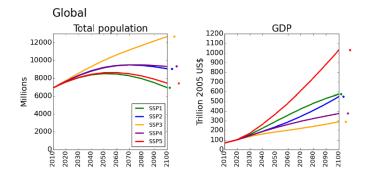


Figure 2: Global total population and GDP under the five Shared Socioeconomic Pathways (SSPs).

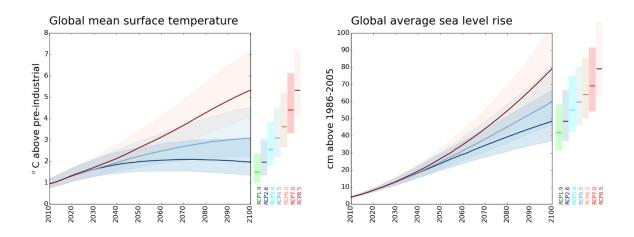


Figure 3: Increase in global mean surface temperature and global mean sea level, under the seven forcing scenarios. For temperature, the solid line represents the median estimate and the shaded area the 10th to 90th percentiles. For sea level, the solid line represents a central estimate and the shaded area the range between a 'low' and 'high' estimate.

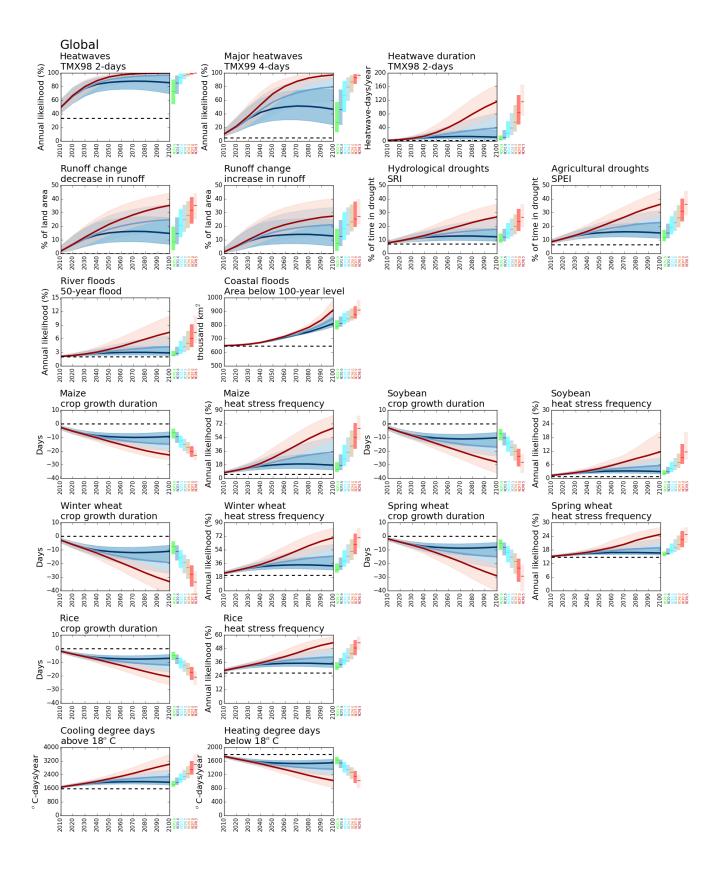


Figure 4: Global hazard indicators to 2100, under RCP2.6, RCP4.5 and RCP8.5. The bars on the right show impacts in 2100 under seven RCPs. The dotted line shows the value of the indicator under the 1981-2010 climate (1986-2005 sea level). The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator).

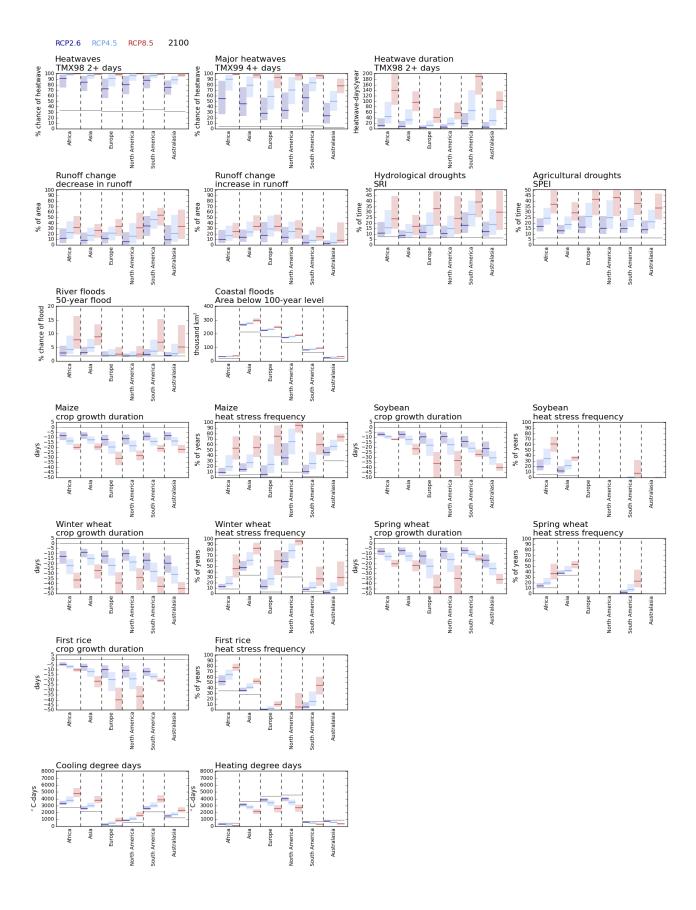


Figure 5: Hazard indicators across continents in 2100: RCP2.6, RCP4.5 and RCP8.5. The solid black lines show indicators under the 1981-2010 climate (1986-2005 sea level). The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator).

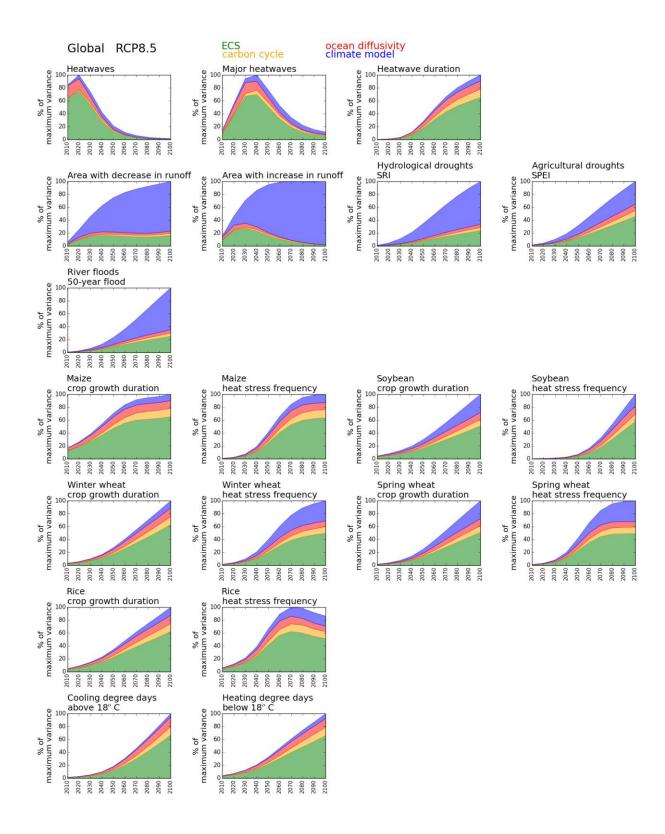
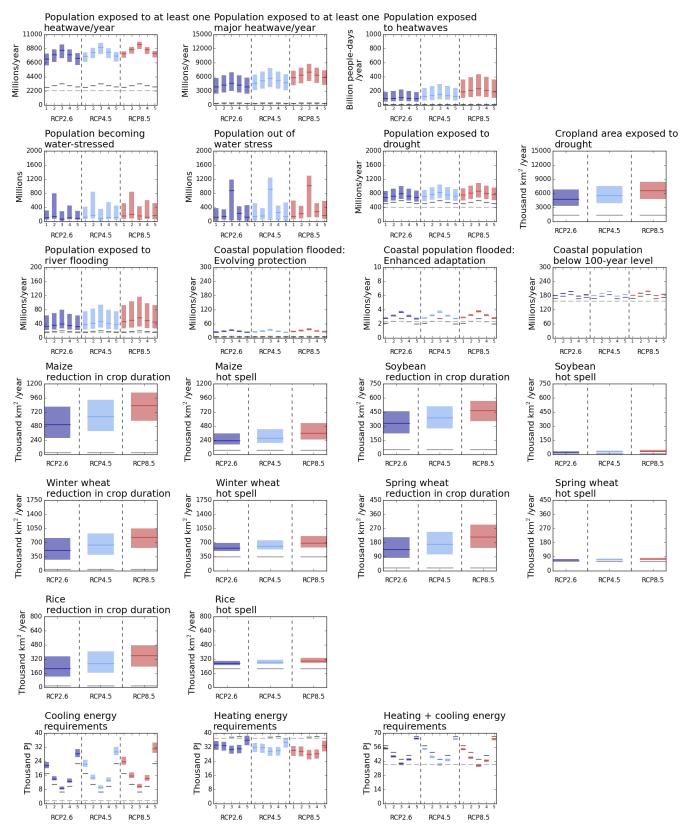


Figure 6: Relative importance of different sources of scientific uncertainty in the projected hazard indicators: RCP8.5, global scale. The plots show the relative contribution of uncertainty in equilibrium climate sensitivity (ECS), carbon cycle feedback, ocean diffusivity and climate model pattern to total uncertainty in estimated impact.

Global 2050



rigure 7a. Giobai impact indicators in 2000. RCP2.0, RCP4.5 and RCP6.5. The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator). The horizontal grey and black lines are impacts in 2010 and 2050 respectively with the 1981-2010 climate (1986-2010 sea level). The five bars for each RCP represent the five Shared Socio-economic Pathways. The vertical axis limits for the cropland indicators are determined by total cropland area.

Global 2100 Population exposed to at least one Population exposed to at least one Population exposed major heatwave/year heatwave/year to heatwaves Billion people-days 10400 12000 2000 Millions/year Millions/year 7800 150 9000 5200 2600 3000 500 RCP4.5 RCP8.5 RCP4.5 RCP8.5 RCP4.5 Cropland area exposed to drought Population becoming water-stressed Population exposed to Population out of water stress drought 15000 1600 12000 1600 1600 Thousand km² 1200 9000 1200 1200 800 800 800 6000 400 400 3000 RCP8.5 RCP4.5 RCP4.5 RCP4.5 RCP4.5 RCP8.5 Coastal population below 100-year level Coastal population flooded: Population exposed to Coastal population flooded: river flooding Enhanced adaptation Evolving protection 320 240 240 Millions/year Millions/year Millions/year Millions/year 240 180 180 160 120 120 80 60 60 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 Soybean Soybean hot spell Maize Maize hot spell reduction in crop duration reduction in crop duration 1200 1200 Thousand km² /year Thousand km² /year Thousand km² /year Thousand km² /year 600 960 960 600 720 720 450 450 480 480 300 300 240 240 150 150 RCP2 6 RCP4 5 RCP8 5 RCP8 5 RCP2 6 RCP4 5 RCP8 5 RCP8 5 Winter wheat Winter wheat Spring wheat Spring wheat reduction in crop duration reduction in crop duration hot spell hot spell 1750 Thousand km² /year Thousand km² /year 1400 1400 360 360 Thousand km² Thousand km² 1050 1050 270 270 180 180 350 350 90 90 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 RCP2.6 RCP4.5 RCP8.5 Rice reduction in crop duration hot spell Thousand km² /year 088 089 089 091

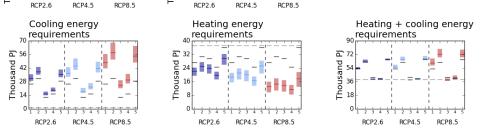


Figure 7b: Global impact indicators in 2100

Figure 8: Impact indicators for each continent in 2100: RCP2.6, RCP4.5 and RCP8.5. SSP2 socio-economic scenario for the population indicators. The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator). For the cropland indicators, the green lines show the total regional cropland area, and for the river flood indicator the green line shows the total regional river floodplain population.

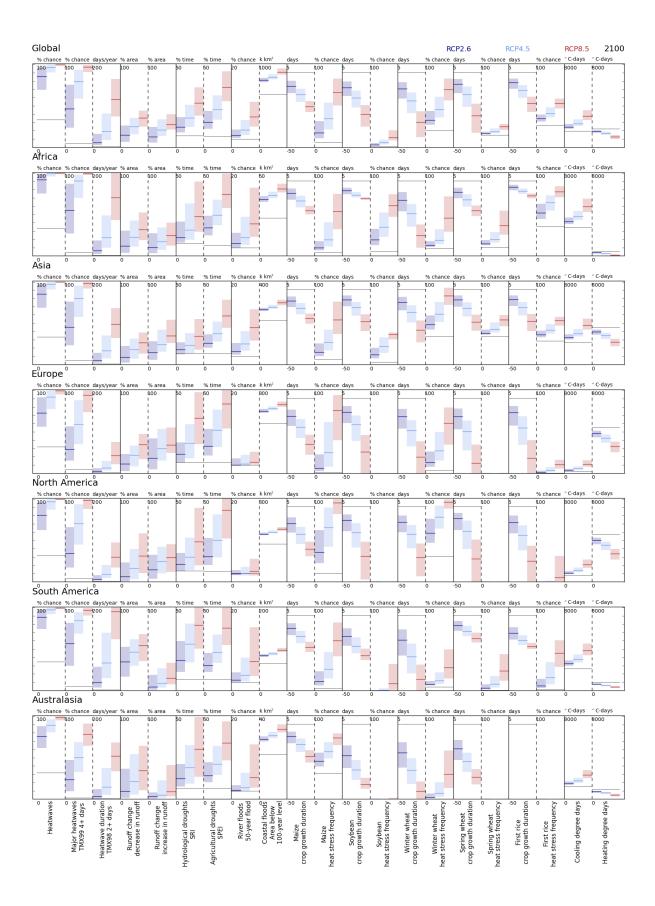


Figure 9: Overview of continental hazard indicators: 2100: RCP2.6, RCP4.5 and RCP8.5. The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator). The axis limits for each indicator are shown at the top of each column. The axis limits vary across continents. the limits are the total regional continental cropland area, and for the river flood indicator the limits

are the total regional river floodplain population.

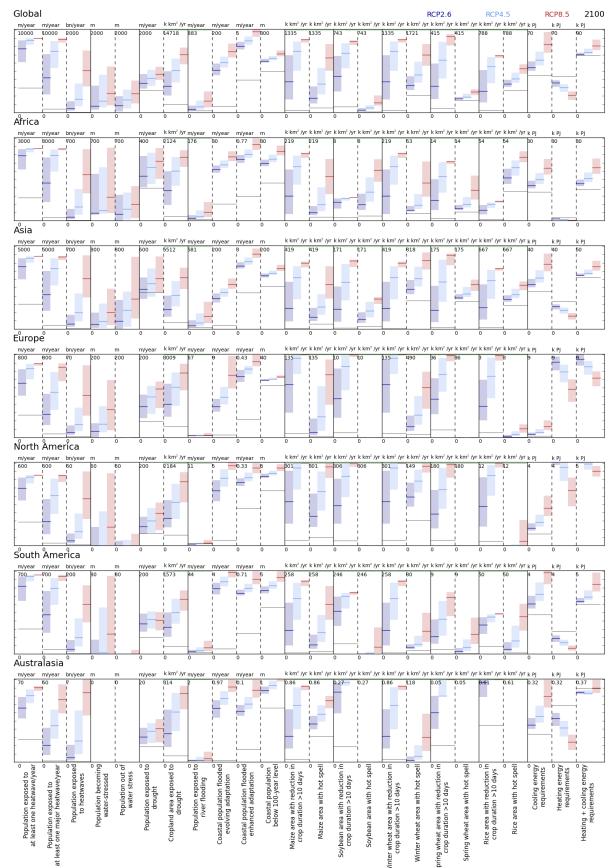


Figure 10: Overview of continental impact indicators: 2100: RCP2.6, RCP4.5 and RCP8.5. SSP2 socio-economic scenario for the population indicators. The solid line represents the median and the shaded area the range between the 10th and 90th percentiles ("low" and "high" for the coastal indicator). The axis limits for each indicator are shown at the top of each column. The axis limits vary across continents. For the cropland indicators the limits are the total regional continental cropland area, and for the river flood indicator the limits are the total regional river floodplain population.