

Figure S1: Near-surface temperature changes (K) for all models, as well as for the model median.



120W 60W GM 60E 120E 180E 180W

MPI-ESM-LR



Figure S2: LWP changes (%) for all models, as well as for the model median.

180E

120E

120E 180E

180W 120W

90N

60N

30N

EQ

30S

60S

90S

180W

120W

60W

60W

GM

GM

60E

120E 180E

MIROC-ESM

60E

120E 180E

180W 120W

90N

60N

30N

EQ

30S

60S

90S

180W

60W

FIRE

120W

60W

GM

60E

GM

2

IPSL-CM5A-LR

60E



Figure S3: Absolute total cloud changes (%) for all models, as well as for the model median.



Figure S4: Precipitation changes (%) for all models, as well as for the model median.



**Figure S5:** Absolute low cloud changes (%) for all models, as well as for the model median. Data were not available for HadGEM2.

	Correlation between surf. temp. change and baseline low cloud fraction	Correlation between surf. temp. change and baseline LWP for oceans
BNU-ESM	-0.59	-0.49
CanESM2	-0.09	+0.43
CSIRO-Mk3L-1-2	-0.18	+0.44
GISS-E2-R	+0.08	+0.04
HadGEM2-ES	+0.06	+0.50
IPSL-CM5A-LR	+0.03	+0.27
MIROC-ESM	-0.49	+0.47
MPI-ESM-LR	+0.16	+0.20
NorESM1-M	-0.51	-0.32
Median	-0.13	+0.45

**Table S1:** Spatial correlations. Global matrices of annual mean changes (average of years 2020-2060) are correlated against baseline (20 first year of RCP4.5) values. All correlations are statistically significant on the 99% level. The lowest row shows correlation between model-median quantities (not the median of the individual model values above).