



Some results from the World Climate Research Programme (WCRP) on climate modelling

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**Chair, Steering Committee for the
Global Climate Observing System (GCOS)**

**GCOS and WCRP work together on improving
observation-based datasets for climate studies,
including the evaluation of climate models**

CMIP5 is the fifth phase of a climate model intercomparison project

developed under the auspices of WCRP, with input from the International Geosphere-Biosphere Programme (IGBP)

CMIP5 encompasses a rich set of runs of the contributing models

evolving from earlier phases, including CMIP3 from which results contributed to the Fourth Assessment Report of the IPCC

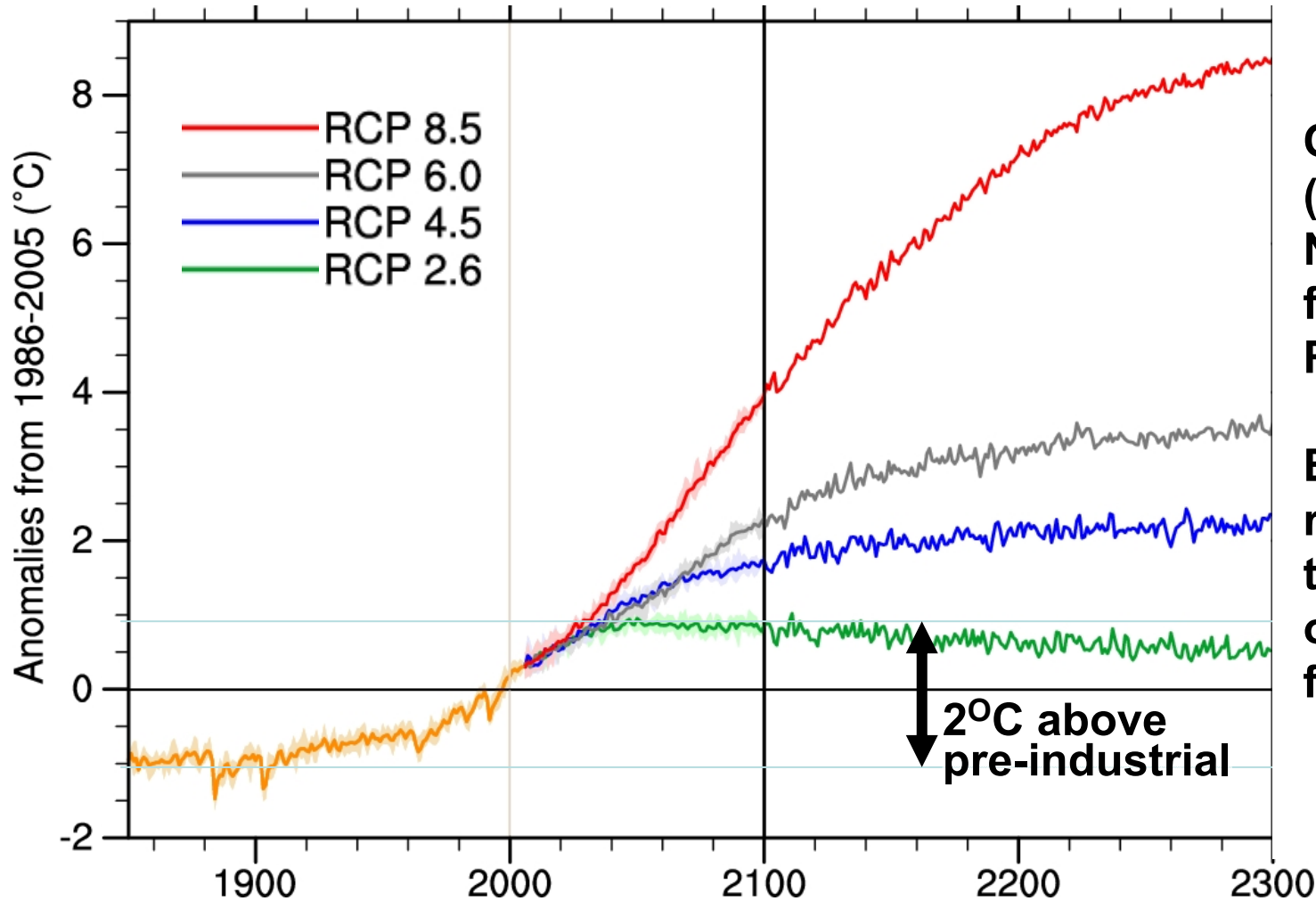
with themes focusing on evaluation of the models, decadal prediction, longer-term projection of climate, and understanding

Many results of CMIP5 are expected to contribute to the forthcoming Fifth Assessment Report of the IPCC



Model responses to Representative Concentration Pathways (RCPs)

Globally averaged surface air temperature



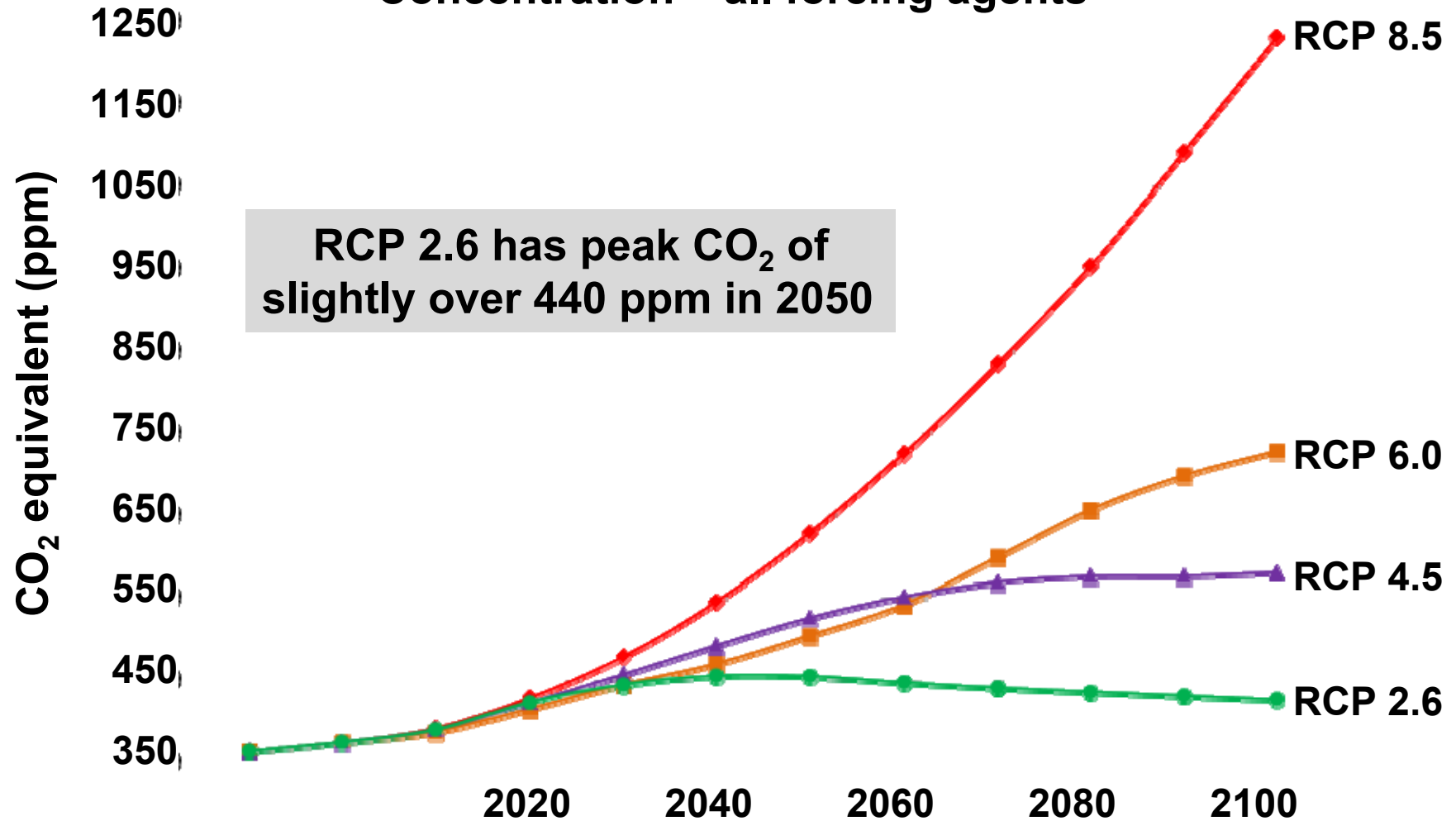
One model
(CCSM4 from
National Center
for Atmospheric
Research, USA)

Based on six
realizations out
to 2100, and
one thereafter,
for each RCP

2°C above
pre-industrial

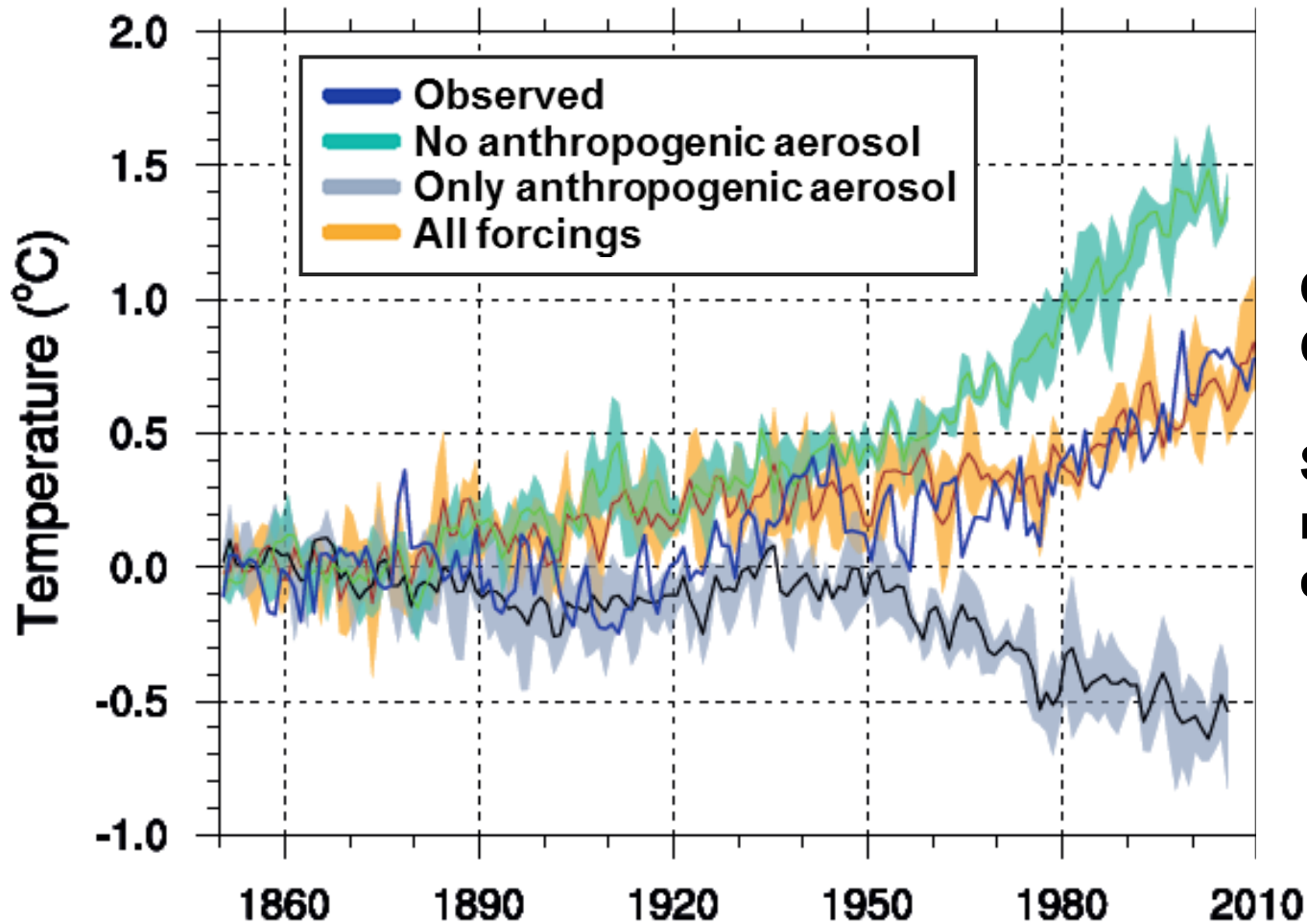


Concentration – all forcing agents



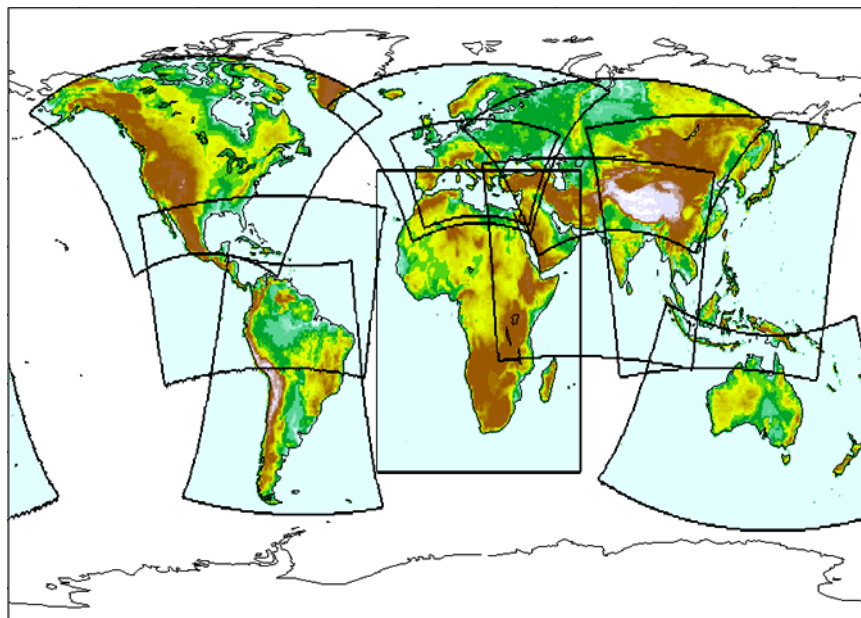


Global-mean near-surface temperature anomalies



One model (from CSIRO, Australia)

Spread of multiple realizations is denoted by shading



**CORDEX programme covers
model downscaling over
12 domains with a base
resolution of about 50km**

**Outputs of a
dynamic model of
mean annual
malaria prevalence**

