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# Recent Climate Observations Compared to Projections

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## Abstract

We present recent observed climate trends for carbon dioxide concentration, global mean air temperature, and global sea level, and we compare these trends to previous model projections as summarized in the 2001 assessment report of the Intergovernmental Panel on Climate Change (IPCC). The IPCC scenarios and projections start in the year 1990, which is also the base year of the Kyoto protocol, in which almost all industrialized nations accepted a binding commitment to reduce their greenhouse gas emissions. The data available for the period since 1990 raise concerns that the climate system, in particular sea level, may be responding more quickly to climate change than our current generation of models indicates.

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