



Climate change and the South Asian summer monsoon

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The vagaries of South Asian summer monsoon rainfall on short and long timescales impact the lives of more than one billion people. Understanding how the monsoon will change in the face of global warming is a challenge for climate science, not least because our state-of-the-art general circulation models still have difficulty simulating the regional distribution of monsoon rainfall. However, we are beginning to understand more about processes driving the monsoon, its seasonal cycle and modes of variability. This gives us the hope that we can build better models and ultimately reduce the uncertainty in our projections of future monsoon rainfall.

This presentation of our recent review paper examines the uncertainty in recent trends in observations of monsoon rainfall for recent decades and discusses possible causes, as well as looking at their projections into the future in the context of continuing decadal variability. We also discuss projections of interannual and intraseasonal modes of monsoon variability and rainfall extremes.