



On the contribution of CO₂ emission from China to global climate change

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Based on the fully coupled earth system model FIO-ESM v1.0 with global carbon cycle processes, sensitive experiments under different emission scenarios are finished to compare with the CMIP5 (Climate Model Inter-comparison Project phase 5) global carbon cycle historical run. A more realistic approach named accumulative contribution is pointed out to quantify the contribution of CO₂ emission from China and all other countries excluding China to the historical change of atmospheric CO₂ concentration, air temperature, sea surface temperature (SST) and sea ice in Arctic, comparing to the pure contribution approach.