The impact of climate, CO_2, nitrogen deposition and land use change on simulated contemporary global river flow

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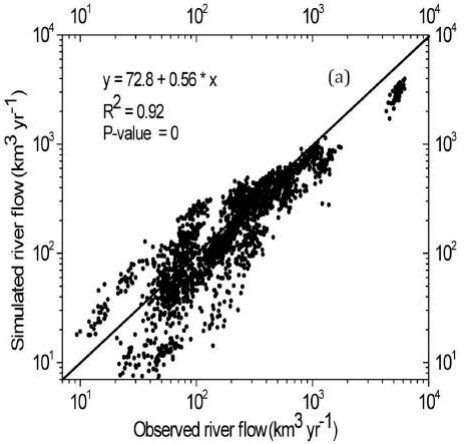
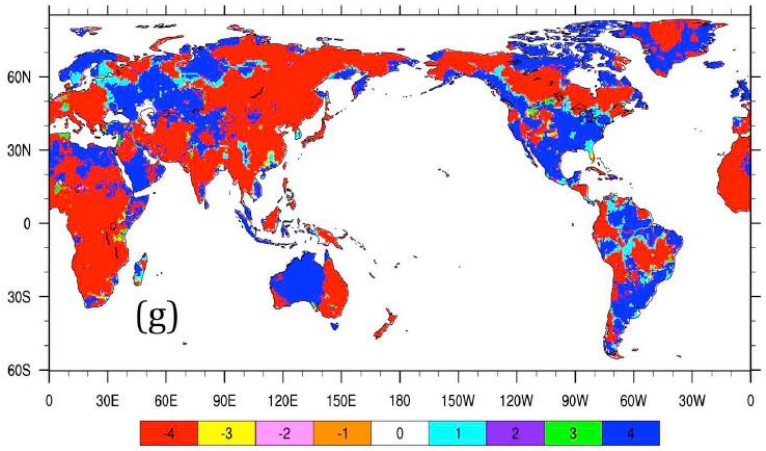
- The Community Land Model (CLM4) with fully active biogeochemistry was used to explore the relative influence of climate and multiple anthropogenic forcings on mean and trends in river flow over the period 1948-2004.
- CLM4 predicted river flow and recent trends are in reasonable agreement with observations (top figure).
- Interannual variability and long-term trends in global total river flow are dominated by climate, but direction and magnitude of trend as well as dominant controlling factor varies by region (bottom figure).





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