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Change in statistics of drought in a land use scenario for Brazil

Markus Kilian (1), Erik Chavez (2,3), Valerio Lucarini (1,4)

(1) Meterological Institute, University of Hamburg, Hamburg, Germany (markus.kilian@uni-hamburg.de), (2) Imperial Collage London, Centre for Environmental Policy, London, UK, (3) Imperial Collage London, Imperial Collage Business School, Finance Department, London, UK, (4) Department of Mathematics and Statistics, University of Reading, Reading, UK

The land use changes due to an intensified and expanding agricultural and industrial activity is affecting regional weather and climate in Brazil.
We analyse the results of a land use change driven Weather and Research Forecasting Model (WRF) using classical drought indices and specific agricultural yield loss drought optimum indices. The objective is to assess changes in risk exposure driven by changes in weather patterns subject to different scenarios of land use changes in Brazil. The WRF model is driven by land use changes as well as the ECHAM5 climate model (with the A1B scenario) on a 60km and 30km grid. In order to determine the risk exposure of an important economic sector to changes in land use change we focus on maize as one of the principal crop grown in Brazil.