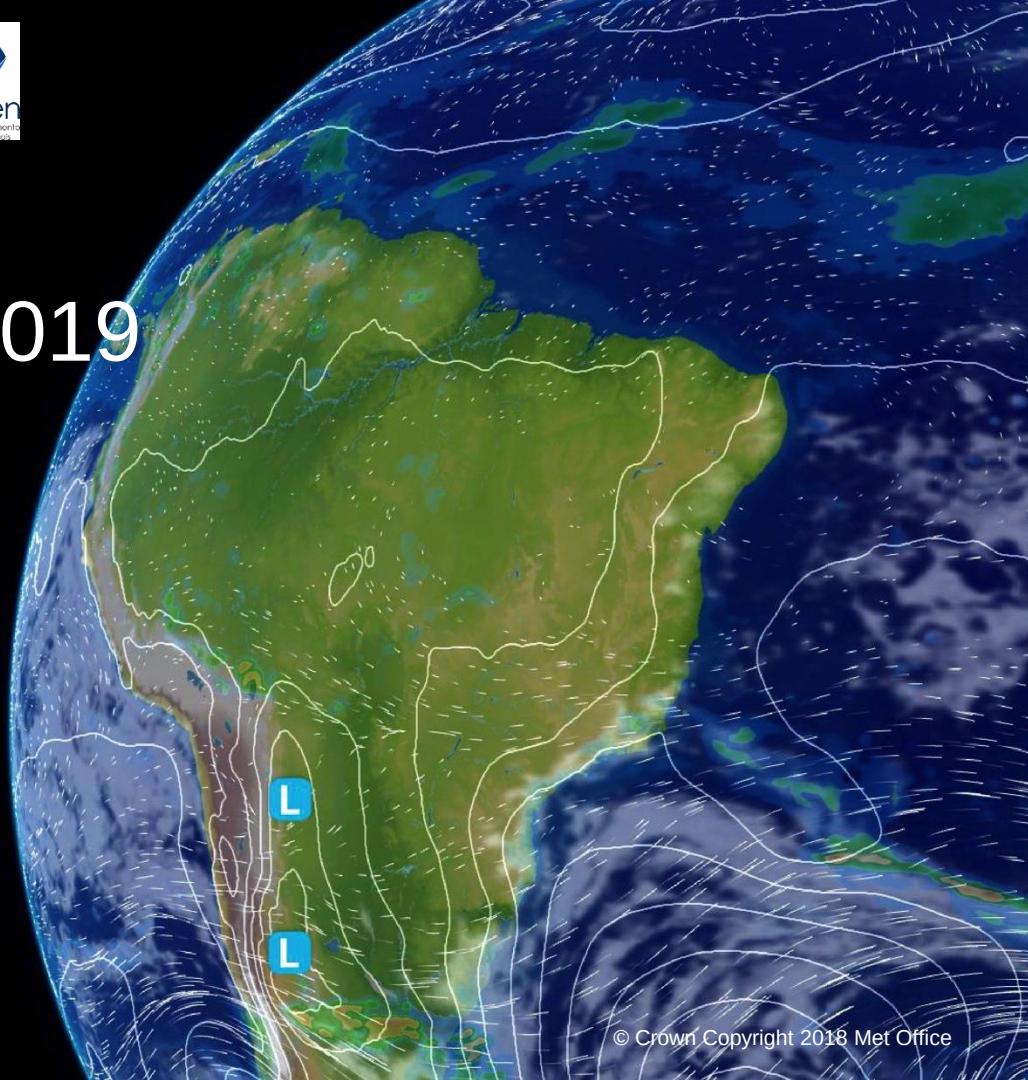
CSSP Brazil funding opportunity October 2019



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WP2 Carbon Modelling

SSTs drivers of Brazil rainfall change and risks of future droughts

1 year funding from April 2020 to March 2021 £100,000 FEC

- Previous climate studies with Met Office climate models have shown large reductions in Amazon rainfall, which would imply a substantial reduction in river flow and forest resilience.
- Although this now seems to be an outlier compared to other models, it remains a high-impact, physically-plausible outcome: if the projected SSTs anomalies are used to force a different model (e.g. EC-Earth) a large drop in rainfall is still simulated.
- Research is required to investigate these SST anomalies, e.g.: to assess their magnitude and character in the context of other projections, and mechanisms by which they occurred. Research questions include how the role of the climate forcing, structural features of the model, or particular parameter choices determine the SST evolution.

Anticipated outputs or results:

- Mechanistic understanding of causes of SST patterns which drive substantial South American (esp. Amazon) drying.
- Assessment of the plausibility of such projections and whether CMIP6 models continue to simulate this as a high-impact, physically-plausible outcome

Indicative timings

Stage	Target Times
The deadline for submitting clarification questions	8th November 2019
Call Return Date	22nd November 2019
Evaluation Period	22nd November 2019 – 17th January 2020
Outcome Notification	End of January 2020
Grant Award Target Start Date	1st April 2020
Grant Award End Date	31st March 2021