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Dear Dr. Sato,

Firstly we would like to thank you, and Dr. Delbart for taking the time to review this manuscript for the second time. We are delighted that you have accepted this manuscript and we hope that it provides a valuable contribution to GMD.

In response to Dr. Delbart's comment: *"My only comment, I still disagree with caption of figure 3, as I think what is plotted is not "changes" but "1 minus changes" or even "variable value under disturbed conditions normalized by the value of the same parameter under undisturbed conditions".*", we would like to inform you that this has been changed as requested so that the caption has the words: one minus changes, inserted such that the figure 3 caption now reads:

"Figure 3: Modelled effect of short-term variations in temperature and drought expressed as one minus the changes in: a) gross primary productivity (GPP) b) ecosystem respiration (R_{eco}) and c) leaf area index (LAI) in the final year (2006) in the drought run, as a fraction of the value in the final year (2006) of the control run, for the $T_{air} -5^{\circ}C$ (grey bars) and $T_{air} +6^{\circ}C$ (white bars) simulations."

If you have any other requests regarding the manuscript please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Lucy Rowland'.

Dr. Lucy Rowland and co-authors.