

Interactive comment on “ENSO and IOD teleconnections for African ecosystems: evidence of destructive interference between climate oscillations” by C. A. Williams and N. P. Hanan

Anonymous Referee #1

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This is a well organized and written manuscript that describes a contribution to the literature for the scientific community, being interested in African ecosystems and climate anomalies. A more detailed understanding of the African carbon cycle is highly needed. Moreover, knowledge on the drivers of photosynthesis and more importantly rainfall (here climate anomalies) are of value, not only for the scientific community, but also for the local living communities - I suggest stressing this little more in the conclusions.

I only have a few comments to clarify the manuscript.

In general, remove some of the references. You give 3-5 references for each little fact,

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choose 1 or max 2 of importance. The reader will thank you, since at the moment this is leads to an interruption in the flow of reading.

page 6324, line 5 Abstract: "Africa's carbon sources and sinks" - this is very vague and may not only focus on natural ecosystem, which I assume you do.

page 6324, line 11/12 abstract: photosynthesis and vegetation greenness - rephrase, since at the moment this reads as you treat these two variables independently. However from a remote sensing perspective both variables are closely connected whereas from an ecophysiological viewpoint this might not be as clearly the case.

page 6336, lines 27-30: Is there a clear pattern, so that one can predict possible anomalies in rainfall and photosynthesis? At the moment you mention there are influences of climate anomalies to photosynthesis and rainfall, and also the interaction between ENSO and IOD, but these influences are highly variable, regional as well as temporal. Particularly cancellation or reversal are of interest not only for the scientific community. I suggest writing at least one or more sentences on this.

page 6347, Table 2: Please stick to significant only (bold). There might be something vague "close to significant" (italicized) but this is commonly not used in science, and certainly not when modeling.

page 6351, Figure 2: This is a very doubtful figure. First of all doing regression with 3 or 4 points and then I am wondering why you do regression for photosynthesis SE African, SON, but not for Rainfall (either SE African or Tanzanian). Either you explain the graph more detailed or you replace it with something more supportable.

Interactive comment on Biogeosciences Discuss., 7, 6323, 2010.

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