

## ***Interactive comment on “The influence of vegetation on the ITCZ and South Asian Monsoon in HadCM3” by M. P. McCarthy et al.***

### **Anonymous Referee #1**

Received and published: 6 March 2012

General: The topic is interesting but the delivery feels sloppy and insufficient. Swann et al. published a more complete version of the same topic in PNAS 2 months ago. I recommend using that study as a starting point for this one.

Specific: 1) Abstract: Make the list of results more specific. As written, this list is vague.

You say "fourth" but I didn't see the other 3 listed. This sentence ("The role ... climate") is convoluted. I'm afraid I do not understand it.

Line 19 has an example of how to be more specific with the results.

2) Section 2.3: I do not understand the difference between TRIF 1 and 2. Is the difference explained eventually in line 27? If that is the difference, then the Table is incorrect.

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You say "are initialized from" but what is initialized? The atmosphere? The land? As written, I understand "the vegetation", yet I had assumed that the veg was prescribed.

Top of p. 97 is not described well. Hard to follow. The next paragraph has info that will be hard to retain as I read the climate response.

3) Section 3.1: Ok to write this, but I will not retain this info, so I recommend a table summarizing these results by zone or region or feature. Possibly include in the table the most likely veg causing each result. Plus references to past studies that support each result. Also highlight statistical significance.

4) Several figures are too small to read and with too much information to know where to focus.

5) I did not find the presentation of the atmospheric response sufficiently and/or directly linked to the veg. E.g., veg change leads to latent heat flux change which leads to change in the atmospheric circulation.

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Interactive comment on Earth Syst. Dynam. Discuss., 3, 91, 2012.

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