

Interactive comment on “Carbon and nitrogen dynamics and greenhouse gases emissions in constructed wetlands: a review” by M. M. R. Jahangir et al.

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Review for HESS Jahangir, Fenton, Gill, Müller, Johnston and Richards Carbon and nitrogen dynamics and greenhouse gas emissions in constructed wetlands: a review.

This manuscript sets out to review nitrogen and carbon cycling in constructed wetlands. I note however that the focus is much more strongly on nitrogen, rather than carbon (and therefore the title might benefit from a slight change?). Such a review would be very welcome and the manuscript could fill a clear gap in the literature. The manuscript is well-structured, detailed and in general a suitable style. There are how-

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ever substantial corrections and amendments required (as I will detail below) before it is publishable. So I suggest (and strongly encourage) major revisions and resubmit.

My detailed comments and corrections have been annotated in the pdf file, but in general:

1. The manuscript is more of a literature summary, rather than a critical review. There are many places where data from a number of papers are summarized, listing a lot of numerical values. Sometimes this is done even when there is a table outlining the same data. I really look for critical analysis in reviews – this is currently missing.
2. There are a number of times when research findings from a specific site and application, are generalized across all constructed wetlands. The authors should be very careful here. The manuscript reads (in quite a few places) that you have a specific site in mind and you are using the literature review to justify (often not particularly well) why you wish to use your site. But you are not stating what your site is, and this approach is of less relevance to readers.
3. There are many problems with sentence construction throughout the paper. Given that the majority of the authors have English as a first language, this is disappointing. Please do a serious edit for grammar and English. At times, your meaning is so hard to get to, as I had to pick apart sentences that did not really make sense.
4. There is a methods section in the paper. While a (critical) review of methods is appropriate, I don't think the outline of an experimental setup is in any way appropriate for a review.
5. There is a very generic statement after each section, saying something along the lines of “this area needs to be more fully investigated to get a better understanding of GHG emissions”. This is too broad a statement. You have done a review of literature, so should be able to identify specific knowledge gaps and therefore research questions. This comes back to the lack of critical review.

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6. The final paragraph of the paper is very poor. In fact you conclude with an unfinished sentence!!

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/11/C3837/2014/hessd-11-C3837-2014-supplement.pdf>

Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, 11, 7615, 2014.

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