

Interactive comment on “Status of organochlorine pesticides in Ganga river basin: anthropogenic or glacial?” by P. K. Mutiyar and A. K. Mittal

Anonymous Referee #1

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The present study deals with the occurrence and sources of organochloro-pesticides throughout the basin of the river Ganges. Although information on the concentrations is useful and interesting, the manuscript itself is relatively poorly written, and some aspects might require further attention. I elaborate below:

- the most disturbing aspect about this paper is the poor spelling and grammar. The manuscript contains numerous errors (please check the use of articles!!!) and should be very carefully proof-read before further action. The abstract itself is already full of errors, where the authors forget the use of articles or place the articles where not needed. Some more examples of errors (not exhaustive): * p. 2 line 24: "non-point pollution sources are or greater importance..." instead of "non-point pollution source is...." * p. 2 line 25: "run-off" is written as run-off, run off or sometimes runoff. Be

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consistent! * p. 3 line 5: parts instead of part * p. 3 line 23: "contribute pesticides"? Not grammatically correct * p. 3 line 28: the study covers A 1805 km long stretch * p. 3 line 29: sampling campaigns were carried OUT in three states * p. 4 line 1: put a comma after Bihar (BR), also put article "a" before major * p. 4 line 6: states is written without capital letter * there are NUMEROUS other errors in the manuscript, listing them all would be too time consuming. Authors should really pay attention to this, this is exhausting for the reader - p. 3: in most European countries, there is a shift towards more readily biodegradable pesticides. What is the trend in India? Please comment on this in the paper - p.4: the UK stretch was measured for OCP residues in winter, the other stretches in summer. Why was this done and how could this have affected the conclusions? - p.5 line 5: how do the pesticides end up in domestic sewage? - p.5: why were only single samples taken? Are the conclusions relevant in sight of this? Grab samples are not the best way to determine average pesticide concentrations. - p.7: why was phosphate not measured as a nutrient to look at influences of domestic wastewater and agriculture on surface water quality? - p. 7 line 14: Shimadzu, not Shimazu + what type of TOC analyser from Shimadzu? - Table 3: units are wrong. What are the units of the MQL? - p. 9: why were nitrate and ammonium not measured in the UK stretch? If there were STP effluents ending up in these rivers, the NO₃⁻ and NH₄⁺ concentrations should be important. Also, these concentrations are important in sight of drinking water treatment from the surface water. - p.9 line 8: "quality is very good": what warrants this statement? N and P were not measured, and might as well have been way above the limits - p. 9 line 13: what is the nutrient removal in the STPs? - p. 9: how can you make conclusions if the stretches are so broad and you only indicate ranges of parameters in Table 4 and not consider individual samples points - p. 9 line 25: it is mentioned that the water quality is good, although DO is sometimes around 1 mg/L. Is that a good quality? - p.10 line 12: why were the fecal coliform counts not shown? - p. 11 lines 11-13: "Endo group's relative abundance was 10% of the total, but high occurring frequency (54%) in the total samples, indicate that this pesticide has limited use for agricultural processes". This sentence does not make

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sense, not grammatically, nor content-wise

Overall, I also wonder about the implications of the research for drinking water treatment. The Ganga is used as source for drinking water, but concentrations of the OCPs are not even compared to drinking water standards. Authors should add more information on this aspect.

Interactive comment on Drink. Water Eng. Sci. Discuss., 5, 1, 2012.