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Journal Name:	Asian Journal of Environment & Ecology
Manuscript Number:	Ms_AJEE_30791
Title of the Manuscript:	Biochemical changes in leaves of important trees exposed to pollution and exhausts at roadsides of Jabalpur, India
Type of the Article	Original Research Article



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	The paper is devoted to an important and interesting problem in applied ecology, but needs a serious revision. I believe that the study is of interest, but needs refinement and clarification. I hope the authors will address the current drawbacks, and they will produce an interesting article. The Abstract should contain information the volume and quantity of the samples that were analyzed.	Thanks. Mostly the drawbacks have been rectified with sincerity. As there are many experimental parameters, the volume and quantity of the estimations varied as per the parameter concerned, like for estimation of pH of rhizospheric soil, a 20g sample was needed, while for chlorophyll estimation of leaf, a 1g sample was needed. So, to specify for every experiment, it would make the abstract longer, and therefore, the attempt was avoided. All results were expressed as mean values in replicates of 3 samples, and it has been added in the abstract.
	The Introduction. The structure of the introduction isn't perfect. There is no literature review on the research question. No characteristic of the study area is given. The authors say "...Jabalpur is one of the polluted cities in M. P. of India" (line 40), but they don't explain the facts on which this judgement is based. Maybe, it will be better, if they transfer the text from the lines 64-67 to the beginning of the introduction and prove it with references to the literature or their own data. The objects of studies are five tree species that the authors called "...resistant trees..." (line 8, 26). It's necessary to explain why the authors think so, to give a brief description of these species. A short description we can find only in the Materials and methods: "The tree species were carefully chosen, which were found to be resistant at Korba and Raigarh Talcher industrial areas <u>as described by our laboratory group earlier</u>" (lines 204-209), but there is no reference. I think, these details are very ordinary for the authors, but the paper will be read by the scientists from other regions and for them such	Rectified as advised.



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	details should be explained. If any abbreviations are used, they should be explained immediately after the first use. For example, there is no decryption for M.P. (line 31, 40). The full name of “Madhya Pradesh” is provided in line 64, it must be transferred to the first mention of the abbreviation in the text. According to international standards, modern fuel should not contain the lead. Where did the authors get the information about automobile emissions containing compounds of lead (line 53, 180 etc.)? Perhaps it means that emissions included compounds of lead previously, and their accumulation in the soil from emissions that took place previously is observed? It is unclear what materials were used to compose “Exhaust emission pollutants”, “The Mechanics of Exhaust Emissions”, “The Difference between diesel and petrol”, etc and tables I, II? Judging by the text, it was not the authors' own data? If it's the authors' data, it's necessary to specify how the measurements were performed. If it's data from literature, it's necessary to make references.	
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	Materials & methods. The methods contain no reference to the sources either. Besides, the description of methods is too lengthy, more than 12 pages, because all the stages of the analysis are described in detail. Of course, the authors are free to decide how they want to use the volume of the article. But I think it would be more rational to make references to the description of methods in the published papers or books, and describe in more detail only those aspects that differ from the conventional methods. There are no data on the volume of the material. How many samples and at what frequency were analyzed?	Reduced and rectified as advised.
	Results. The main results of the analyses of rhizospheric soil are presented in figures 3-15. A lot of small pictures, which don't show the error of analysis and don't provide an opportunity to assess the differences. It would be better to present these data in the form of 1 or 2 tables that would allow one to compare the control and polluted areas. The results of leaf analyses are shown in Tables IVa to XVb. A lot of small tables, it's difficult to compare the control and polluted areas. Therefore, the method of presentation of the results makes it impossible to assess whether the data are well controlled and robust. The description of the results is very short (lines 615-623).	Not much can be provided by the author at the moment.
	Discussion does not contain any references. "From the above study..." (lines 802-808) mentions the previous studies, but there are no references to them. In fact, the section Discussion simply points out the differences in the tables. There are no statistical analysis, so it is impossible to estimate the significance of differences between the control and polluted areas. Table XVI, Summary of automotive exhaust levels, it's unclear, whether it is based on the author's own data or on the data from literature. Apparently, the authors have done a large amount of work, but at the moment it is difficult to judge about it, because the volume of the material was not demonstrated. In addition, it is unclear why the calculation of the traffic load was done if these calculations do not appear in the discussion.	Rectified as advised.
	There is no Conclusion .	Added as advised.



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	References cited isn't detailed and adequate. The list of references includes only 6 papers, which concern the air pollution and research methods. It's not enough for a scientific article. Do the authors believe that none of the scientists before them have dealt with this problem?	Rectified and enriched as advised.
Minor REVISION comments	Perhaps, the formulas should be edited using Microsoft equation editor, because at the moment they are hard to read. The values of the same parameter in the tables often contain a different number of decimal places. The number of decimal places should be the same and correspond to the limit of analysis accuracy.	Not much can be provided by the author at the moment.
Optional/General comments	I don't feel qualified to judge about the English language and style, but it seems to me, that the style isn't quite good. For example, "... there found the minimum difference... " (lines 15, 16). Maybe it means "...there was found minimum difference..." and "...there were found significant differences...". Also with "... important trees... " it is unclear what the authors meant. Maybe the most common trees along the roads? Why are they important?	Rectified as advised.