

Review of: "Probabilistic Assessment of the Heavy Metal Pollution in Debrecen's Topsoil"

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Potential competing interests: No potential competing interests to declare.

Dear Editor-in-chief,

I have reviewed the entitled manuscript GEEN-D-23-00059 "Probabilistic Assessment of the Heavy Metal Pollution in Debrecen's Topsoil". In this research, an assessment, although incomplete, regarding the pollution of heavy metals in Debrecen has been discussed. Modeling environmental data is my favorite, but in this project, the source of pollution was not investigated, and no suggestion was made to prevent heavy metal pollution. It is considered one of the shortcomings of this work. Innovation is not seen in it, but there are useful contributions that can help the publication of the article.

My comments:

- 1- Remove the first sentence in the abstract section and give information about the source of pollution in this section.
- 2- Regarding the existing industries that have caused soil pollution, information should be given in section 2.1.
- 3- Figure 1 is unknown. Be corrected.
- 4- Provide explanations about principal component analysis. Use the following sources:
<https://doi.org/10.1016/j.gexplo.2021.106924>
<https://doi.org/10.22044/jme.2023.13227.2424>
- 5- In section 3.1, should a comparison be made with city environmental standards?!
- 6- The quality of the legend of Figures 2 and 4 is low. Be improved, please.
- 7- What methods were used to obtain the spatial distribution maps of elements in Figures 2 and 3? Be interpreted, please.
- 8- The results should be rewritten and quantified.

