Review of: "2D inversion of electrical resistivity investigation of contaminant plume around a dumpsite near Onitsha expressway in southeastern Nigeria"

Animesh Mandal[1]

1 Indian Institute of Technology, Kanpur

Potential competing interests: The author(s) declared that no potential competing interests exist.

Authors have used electrical resistivity and borehole log data to map leachate from a dumpsite near Onitsha expressway in southeastern Nigeria. The subject of this work is directly relevant for future groundwater practices in the study area thereby important for the people living in the nearby region. However, application of these approaches (for data acquisition and interpretation) is very common in groundwater contamination studies and its implication is mainly restricted to local region. No new/innovative approaches have been applied/developed for data acquisition and/or interpretation. Therefore, it is hard to find the broader impact and novelty of this study.

Also there exist some technical issues regarding the data acquisition and processing part: like, with 3 m electrode spacing how 100 m spread was achieved? How many electrodes were used in the 2D resistivity tomography study? Nothing is mentioned about the process of covering 960 m length (as shown in 2D resistivity sections) using 100 m spread? How were these data prepared for inverse modeling?

Quality of the figures must be enhanced, and, in some figures, units are missing (e.g., y-axis of Figs. 5, 6 etc.).

It also lacks direct evidence or validation to support the inferences made from the resistivity study.