

“Environmental soil quality index and indicators for a coal mining soil” by R. E. Masto et al. Anonymous Referee #2 Received and published: 17 March 2015

	Reviewer’s Comments	Authors response
1	<p>The idea and objectives of the article are interesting and of general interest. However, I am very concerned about the <u>experimental design</u>. The description of the experimental design is very poor, without <u>giving necessary details to really understand how sampling spots were selected and samples collected</u>. However, <u>it seems that only one area in an open pit and one are in an underground mine were selected</u>. This is not representative to establish a soil quality index for a coal mining soil. According to the authors, this area has one of the largest reserve of coal in India, with high mining activity. Thus, a wider area should have been selected to really guarantee a representative set of samples. In addition, authors indicate that 32 samples were collected in the openpit mine, and 17 in the underground mine. However, there is no explanation about the criteria followed to select those spots, <u>the distance between them, the distance to the mines, etc.</u></p>	<p><i>Thank you very much for the valuable comments for the improvement of the manuscript. The following will be included in the revised manuscript and we sincerely believe that will address the concerns expressed by the Learned Reviewer.</i></p> <ol style="list-style-type: none"> <i>1. A site map depicting all the sampling points will be included. This would give the details on the distance between the sampling points and the coal mines.</i> <i>2. We have selected one opencast and one underground mining area. We agree with the Reviewer that the soil quality index developed for one single site will not be a representative for coal mining soil. Thus, if agreeable, we may further revise the title of the manuscript by incorporating the specific site name, and accordingly the revised title may be ‘Assessment of environmental soil quality around Sonapur Bazari mine of Ranigunj coalfield, India’</i>
2	<p>In addition, I miss the selection of an area not directly affected by mining, with the same geological material and soils, <u>as a reference soil</u>, to really check how mining is affecting soil quality, and to assess if heavy metals are indeed accumulated by mining activities or are geogenic. <u>For these reasons I cannot recommend this manuscript for publication.</u></p>	<p><i>Yes, we agree that an additional reference site would help to delineate the contribution from coal mining and geogenic. We have the heavy metal and PAH data for representative coal from Sonapur Bazari mine, which can be used to distinguish the geogenic contribution.</i></p> <p><i>We would request the Reviewer to kindly reconsider his earlier decision on this manuscript.</i></p>