



SDI Review Form 1.6

PART 1:

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	2013_BJAST_4500
Title of the Manuscript:	HEAVY METAL POLLUTION OF IN-SITU AND SURROUNDING SOILS PROFILES AT MUNICIPAL SOLID WASTE DUMPSITE
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: 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	Although this is a study that may be of international interest, it is <u>not</u> recommended in current form but will contribute greatly to the field of study if revised. <u>Introduction</u> The author need to organize/ mind map thoughts , no clear differentiations between general statements on soil pollution/ pollution from landfill sites and specific study area e.g. line 56/57 <u>Materials and methods</u> Maybe include map of study area for clarification of distance where soil samples are collected in the area surrounding the WSD (CS samples taken at which distance from (WSD)- spatial extent of pollution Line 149-153 and 155-160 part of methodology <u>Results</u> It is advisable to include a specific paragraph in the article on your specific study area to explain exactly where the study area is located, and also to explain the type of waste that is dumped at this site before statements such as line 176/ 177 can be made. Define Sd, Cv K1 e.g. Sd=Standard deviation in Table one- also see comment on inclusion of map Line 175: mg/l or mg/kg also in rest of article? Line 190-190 Value for Mn 1024-1059mg/l??? value for Nickel (Ni) Please review and correct several mistakes in results.	The focus on the problem in view has been redirected in the introduction. Modifications have been made to direct the reader to the problems. The lines 56 – 58 are re-constructed to show their difference intended. <u>Materials and methods</u> Study site map was drawn (see figure 2) The distance was a target range from the periphery of the dumpsite used for urban farming close to the open waste dump site distance The spatial extent of pollution in CS was tested within a corridor of 10-20m in the sideward and upslope fields from the verge of dumpsite grounds. <u>Result</u> Specific study area is described in new section 2.1. Line 170: the unit for HM in soil is allowed as mg/kg Line 176/177 The statement was recast as: “since the surrounding soil with no waste load dump had less Cu than WDS soil the high Cu metal is most likely to be due to the material content of the waste”. This is a suggestion, not analytical. Waste components were not categorized. (It was not the aim of this research).



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		Line 190: This is deleted. It was for MN not Ni which values are replicated. Values of MN were used. Sd, Cv, K1, K2 are defined on footnote to Table 1. Entries of Bo, (mean) in Table 1 and in the text LN 165, for Cd, 168, 170, for Bo, 190 to 220 were re-checked and any correction made. The re-hearsing of HM range in the text Lines (190-220) were removed in line with SDI quality requirement not to duplicate table details in the text in discussion.
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Minor REVISION comments	Line 155/156 part of methodology Line 57- include after mix waste "<i>from animal park and smelters</i>" Line 65 replace have with may Line 67-69 re-phrase sentence Line 117 not Zn but Zn Be constant , either use Fe or iron Include in methodology Cu, Cd, Zn Pb, Mn, Fe are analysed Line 167 Cd's ? Line 175 WDS/ WD?	Line 155-159 was taken up to methodology in previous Line 119. Sentence was amended as appropriate. (Line 64 – 66); Sentence reframed, phrase deleted in rephrased statement (Line 66 – 69). Line 117: Correction to Zn was made Uniform term: Fe except where "iron" is inevitable. CB was corrected to CS; "mean concentration of Cd was the same (0.16 mg/kg) in WDS and CS... "replaced WDS was used. Line 175: Corrected to WDS (not WD)
	GENERAL COMMENTS	GENERAL COMMENTS 1. Abstract was reduced. 2. New 2.1 section was added on information on study site. 3. References: New, more relevant references were added and some old ones deleted (including former nos. 3, 6, 18, 19, 20, 23, 28, 30, 31 and 32). 4. The scope or limitations were inserted in the introduction. 5. The objective specified the target distance of the surrounding area (100 – 120m based on Fig. 1) to be



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		compared. 6. Fig. 1 (new) is the study site map, added as required by the Reviewer. 7. Former Fig. 1 was changed to Plate 1. 8. Standard for soil particle analysis – ASTM D422 was added. 9. Equation 3 was made to stand out from the text under sub-section 2.3. 10. Correlation was elaborated and new Table 3 added. 11. New Table 3 gave HM correlations for both layers of the profile. 12. New Table 2 was the t-values, moved up from old Table 3. 13. New 3.3 was elaborated. 14. Background values use for elemental CF was added. 15. New Fig. 2 was a graph of mean HM at both sites, replacing the Bar charts of old Fig. 2.
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		16. HM was elaborated to emphasize results or effects of the HM or justify suggestions. 17. Former section 3.6 was made redundant and information relating to HM pollution effect on agriculture at WDS and CS were merged with new 3.5, which section title was modified. 18. Conclusion was made more poignant with facts observed. 19. Relevant recommendations were made. 20. Sentences were generally reconstructed to emphasize the points or justify suggestions.
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