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Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_32273
Title of the Manuscript:	Health Detriment Associated with Exposure to Natural Radioactivity from the Soil of Ondo and Ekiti States South Western, Nigeria.
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of 'lack of Novelty', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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

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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	 Lines 52-55; transfer to Materials and Methods. No map for the samples sites Line 59; [120 g] is little amount to give good results with accepted uncertainty Lines 71 and 72; why the author neglect the gamma lines of ²¹⁴Pb for ²²⁶Ra calculation and the gamma lines of ²²⁸Ac for ²³²Th calculation? The average of many gamma lines give more accurate results. Line 116; [0.7 Sv y⁻¹] error expression Line 122; [0.7 Sv Gy⁻¹] check expression. In general, the conversion factor from Gy to Sv is 1 for gamma radiation. Lines 74 and 75; [The energy and efficiency calibrations were performed using certified soil reference standards for various radionuclides.] This information is not enough for the environmental measurements. The author has to give more information about the radioisotopes used in these kinds of calibration and give results of these calibrations. In addition, the reference standard used what their type and sources and what are the radioisotopes inside. The quality control information and results is missing Line 75; what is the volume of the Marinelli beaker and how he close these beakers for three weeks tightly. Line 156, 159, 162, 163 and table 2; the soils have ¹³⁷Cs, how and what is the source of this man made radioisotope. Its concentration was about 9 Bq/kg! it is not traces. There is no solid justification of the presence of ¹³⁷Cs. Lines 150-151; [This index assumed that 370 Bq Kg⁻¹ of ²²⁶Ra or 259 Bq Kg⁻¹ of ²²⁷Th or 4810 Bq Kg⁻¹ ⁴⁰K produce the same 	

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gamma dose.] these values are used for the calculation of the
external hazard index H _{ex} and not for radium equivalent activity.
13. In all the text; correct [Kg] to [kg]
14. There is no concrete justification for the higher
concentrations of the detected radioisotopes than the other
parts of the world as listed in table 3. In addition to line 257
•
15. Line 213; [others] it has refer to different organs inside the
body and out of the list.
16. Line 261; [the world average of 1 mSv/y ⁻¹] this value is the
guideline for radiation dose for public.
Give concrete justification of the 137-Cs and the relatively higher
results

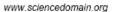
Created by: EA Checked by: ME Approved by: CEO Version: 1.6 (07-06-2013)

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Minor REVISION comments	1.	Line 6; change [constant monitoring] to either [continuous	
		monitoring] or [constant monitoring program].	
	2.	Lines 10 and 15 (repeated comment); uniform the style of	
		[States] or [states]	
		Line 18; delete the first [respectively]	
	4.	In all the text; before the [respectively] has to be a comma [,].	
		Example at line 18; change [States respectively] to States,	
		respectively]	
		Line 20; correct [KEYWORDS] to [KEYWORDS]	
	6.	Line 23; change [microorganism. Man uses soil or otherwise	
		called land] to [microorganisms. Man use soil or land]	
		Line 24; change [Agriculture] to [agriculture]	
	8.	Line 25; delete [Man is a product of his environment.] do not put	
		religious thinking in a scientific work	
	9.	Line 25; change [The environmentalist has] to [The	
		environmentalists have]	
		Line 27; delete [dead]	
	11.	Line 33; change [Scientist and or radiologist] to [Scientists and or	
		radiologists]	
		Line 35; change [And natural] to [Natural]	
		Line 37; change [Medicine] to [medicine]	
	14.	Lines 38 and 39; [primary or secondary sources] who are the	
		primary and secondary sources	
		Line 40; change [Tumour] to [tumour]	
		Line 43; delete [are reported]	
	17.	Line 44; change [But data] to [Data]	
	18.	Line 50; change [Precambrian] to [Precambrian]	
	19.	Line 53; change [Spectrometry] to [spectrometry]	
	20.	Line 66; change [Concentrations] to [concentrations]	
	21.	Line 67; delete the first [Detector]	
	22.	Line 72; change [lines] to [line]	
		Line 102; delete [the ones]	
		Line 118; need reference	
		Lines 159 and 162; delete the first [and]	
	26.	Line 174; change [Akoko and ⁴⁰ K] to [Akoko. ⁴⁰ K]	
		Line 179; change [Industries] to [industries]	





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	28. Table 4; the columns title of the table are not clear
	29. Lines 240-241 and 244-245; these caption of the figures have to
	be down of the figures and not up. In the caption of the table did
	not capital litters
Optional/General comments	Author must give solid justification of two main points:
	1. why ¹³⁷ Cs and from where and what is the source of this man
	made radioisotope
	why the results are higher than comparable values overall the
	world.
	3. In addition, the lack of the quality control.

Reviewer Details:

Name:	Ayman El-Gamal
Department, University & Country	Marine Geology Department, Coastal Research Institute, National Water Research Centre, Egypt

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