

# Review of: "Assessment of Quality, Bacterial Population and Diversity of Irrigation Water in Selected Areas of Minna, Niger State, Nigeria"

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Potential competing interests: No potential competing interests to declare.

Review on paper 10.32388/RUIZ35

Page 1 :

Abstract : 3 objectives are indicated in the first sentence : quality, bacterial population, diversity of irrigation water

Then, in the abstract, we find : bacterial population, diversity ( of what ? water or bacterial population ? ) and physical and chemical properties ( I assumed that was referring to « quality » )

Then page 3/14, we have the objectives developed : physico-chemical properties, bacterial population, and diversity of bacterial population.

I would suggest that the abstract is modified with « physico-chemical properties » as a measurement of water quality ; then « bacteria population » , then « diversity or variability of bacteria population » .... And , please, keep these 3 elements in the same order when you describe the different samples.

Second sentence : 4 locations are indicated, but it is difficult to know what these locations are, looking at the description where the reader does not know where to « cut » the sentence .

I would suggest : location 1 : , Chanchaga ..., location 2 : Fadikpe ..., location 3 : Mechanic village ..., location 4 Soje-A

Then use only location numbers, or samples numbers.

Be more precise in the sentence explaining that 3 points are systematically used at each location, and that the variability between each point for a given location is not studied.

When you write « Other locations were equally diverse », do you want to say that « variability or variance was of the same order of magnitude for these locations » ?

In other words : how do you measure « diverse » ? How do the locations compare ?

Page 2 :

Concerning the reference WBCSD, 2010 .... What type of water is considered ? Be more precise in this sentence.

When Earth is referring to our planet, please write « Earth » and not « earth » ... several occurrences in the paper.

Page 3 :

Aim and Objectives : insert « physico-chemical » before « quality »

Suggestion : insert an objective 0 before objective 1

« 0 – Determine the physico-chemical quality of water used for irrigation as affected by location »

Page 4 :

Study area

Indicate sites 1 to 4 on a map ! , with position of the map in the country, and/or the country inside the map of Africa, with indication of the scale, and North direction.

Maybe give a rough description of the population and land use characteristics upstream of the location points, and of the hydrological basin concerned, if possible with maps.

Soil, water, and vegetation description :

What about some illustrations of the vegetation, or aerial photographs (satellite photos ) ?

Treatment and Experimental design

Treatment of data ? (Please be clearer.)

Page 6

Be careful with references : Collins et al. 1979 (and not 1989)

Check the correct « spelling » of 121°C ... not the right typography (several occurrences in the paper)

The reference to ( Brock et al., 1994) is not included in the references at the end of the paper. Please correct that.

Page 7 :

ofphenol ... of phenol

H<sub>2</sub>S test : insert photos

Page 8 :

O<sub>2</sub> Relationship test O<sub>2</sub> : insert photos

Results and discussion : same size of characters for insertion of a sentence 3 lines before the end of the page

(Mechanic village, with a capital M)

Page 10

« Debnath et al. »: insert a space after Debnath

Page 11 :

Explain, even briefly, why copper should be expected from « petroleum products » ...

Then « while » instead of « While »

Could the correlation table be included in an appendix ? And maybe indicate the main information that should be catching the attention of the reader (help him/her) ...

Page 13 :

How can wells be « resupplied during the dry seasons « ?

References

The 3rd and 4th references are not called in the text of the paper.

Page 14 :

The 7th reference WHO/UNEP 1997 is not called in the paper.