Review Form 1.6

Journal Name:	**South Asian Journal of Research in Microbiology**
Manuscript Number:	**Ms_SAJRM_84467**
Title of the Manuscript:	**CHARACTERIZATION OF FUNGI IN SOIL FROM SELECTED MECHANIC WORKSHOPS IN PORT HARCOURT**
Type of the Article	**RESEARCH 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:

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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	**Title** Title is misleading because only isolation of fungi was carried out. Consider changing it to: **Isolation of heterotrophic and hydrocarbon-utilizing fungi from selected mechanic workshops in Port Harcourt** **Abstract** Abstract is poorly written. I could not find the problem statement (why this study was carried out?) and the objectives of the study (how to overcome the issues stated in problem statements?). The results were written in such a way the significance was not highlighted and therefore I could not see the impact of the research. For instance, is higher population of hydrocarbon-utilizing fungi is significant? By how much compared to heterotrophic fungi? What are THC and K values? Please explain abbreviation at the first mention in text. Write chemical elements correctly (Pb for lead, P is capitalized). What is recommendation for future study? Keywords should be arranged following alphabetical order. **Introduction** (a) Problem statement is unclear. Why this study must be varied out? (b) What are the research gaps? Comparison with existing literature should be carried out. For instance, a few studies have been established and reported similar objectives to the present study. How does this study differ from those? 1. Maishanu, H. M., Bashir, A., Shehu, K., Mainasara, M. M., & Magami, I. M. (2018). Evaluation of Physico-Chemical and Fungal Species Associated with Oil Contaminated Soil from Selected Automobile Garage in Sokoto Metropolis. *Traektoriâ Nauki= Path of Science*, *4*(3). 2. Akubuenyi, F. C. (2019). Determination of The Influence of Used Engine Oil on Soil Microbial Community Around Mechanic Workshops. (c) What are the novelties of the present study? Why fungi were particularly selected for this study since bacteria can adapt and survive under extreme conditions as well? (d) Is the presence of fungi indicative of poor soil conditions? Sometimes, the presence of microorganisms can improve the conditions of soils and support plant growths? Please explain. **Materials and methods** (a) Why farming soil was selected as the control? (b) MVP1, MVP2, MVP3, WMW, CMV, FS. Which is which? No labelling. (c) From where the chemicals were purchased? (d) State the model and manufacturer of specialized equipment such as autoclave, incubator, etc. (e) Use passive sentences for this section. Avoid sentences such as: 1. Weigh out 5g of the dried sample was weigh and transferred in to a digestion flask and 20ml of the acid mixture (650 ml conc HNO_3; 80ml perchloric acid; 20ml conc H_2SO_4) was added (f) What is the concentration of inoculum used for isolation study? What is the control? (g) Was statistical analysis carried out? How many replicates were used for each analysis? **Results and discussion** (a) Authors claimed that there were significant differences recorded in some of their findings? How do they carry this out? ANOVA? (b) What is HUF? What is THF? (c) What does a, b, etc signify? Please explain what post-hoc analysis was used? How the comparison was made, between rows or columns in the Tables? The statistical analysis seems incorrect.	

	(d) Why HUF did not have significant difference? Please explain. (e) How the fungi were identified? Was phylogenetic tree established? (f) Does the presence of heterotrophic fungi signify healthy soil? Please explain and cite references. (g) Most results were presented in the discussion section. Discussion section should explain the findings and compared with existing literature. Therefore, this section lack depth. More explanation and comparison with previous findings are needed with cited recent references. (h) Why certain fungi were found in both control and contaminated soil? (i) Why certain fungi record higher distribution? (j) Why there are differences in fungi populations between the different tested soil samples? (k) How does the physico chemical characteristics such as pH and temperature of soil influence the presence of different types of fungi? (l) How does the presence of heavy metals and content of nitrogen and carbon of soil influence the presence of different types of fungi? For instance, soil A recorded highest growth of fungi X because fungi X generally grows well in the presence of Y heavy metal present in this soil as supported by the findings from Z et. al., (2020). This study is interesting and has impact if the results and discussion sections in particular were improved. **Conclusion** (a) Novelty of the study or improved findings should be highlighted. (b) Recommendation for future study should be included more clearly. **References** (a) Standardize the format based on the journal's requirements (b) Many references were outdated. References should date 5 years and less preferably	
Minor REVISION comments	**Not applicable**	
Optional/General comments	English language editing is required. Many grammar errors were spotted.	

PART 2:

	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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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