

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

Hanane Boutaj<sup>1</sup>

<sup>1</sup> Cadi Ayyad University

Potential competing interests: No potential competing interests to declare.

## Reviewer Comments:

### 1. Abstract:

- The abstract provides a concise overview of the research conducted. However, it would benefit from a clearer statement of the specific findings and implications of the study.
- The statement "Averagely, the bacterial population found in the irrigation water of Minna may not be biodegrading" lacks clarity. It would be helpful to elaborate on what is meant by "biodegrading" and how this relates to the findings of the study.

### 1. Introduction:

- The introduction provides relevant background information on the importance of irrigation water and the challenges associated with its quality. However, it would be beneficial to include more recent references to support the context of the study.
- The introduction could be strengthened by clearly outlining the gaps or limitations in the existing research that this study aims to address.

### 1. Materials and Methods:

- The methods section provides a detailed description of the study design, sampling procedures, and analytical techniques used. However, there are some aspects that require clarification:
- The rationale for choosing the specific locations for sampling should be provided.
- It is unclear how the water samples were mixed and prepared for analysis. Please provide more details on the methodology used for sample preparation.
- Clarify the criteria used for selecting the bacterial isolates for characterization and identification.
- The description of agar preparation and culturing procedures is thorough, but it would be helpful to include information on quality control measures taken during these processes.

### 1. Results and Discussion:

- The results section presents the findings of the study in a clear and organized manner. However, it lacks interpretation and discussion of the significance of the results.
- The discussion would benefit from a more in-depth analysis of the relationships between bacterial populations and water quality parameters. Additionally, consider discussing the implications of the findings for agricultural practices and public health.

#### 1. **Conclusion:**

- The conclusion provides a summary of the key findings of the study. However, it could be improved by including recommendations for future research or practical implications for stakeholders.
- Consider revising the conclusion to provide a more concise and impactful summary of the study's contributions to the field.

Overall, the manuscript presents valuable research on the quality and bacterial diversity of irrigation water in Minna, Nigeria. However, several areas require clarification and additional analysis to enhance the clarity and impact of the study.