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SACAIR Technical Committee,

I hope this letter finds you well. I am writing to provide an update on the revisions made to our paper in response to the reviewers' comments.

We have carefully considered the feedback the reviewers provided and implemented several changes to address their concerns effectively. The revisions made are summarized in the tables provided below.

We believe that these revisions have strengthened the clarity and coherence of our paper and have addressed the reviewers' concerns effectively. We remain committed to ensuring the quality and rigour of our research and welcome any further feedback or suggestions from the committee.

Thank you for considering our paper, and we look forward to the opportunity to present our work at the SACAIR 2025 conference.

Sincerely,

| Num ber | First reviewer's comment | How did I address the comment |
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| 1 | A better grounding in a rigorous explainability framework (https://openaccess.thecvf.com/content/ICCV2021W/RPRMI/html/Palacio_XAI_Handbook_Towards_a_U | Noted. We appreciate the reviewer's suggestion regarding |

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| | <p>nified_Framework_for_Explainable_AI_ICCVW_2021_paper.html or similar...) seems useful to me. Also, a clear discussion of trustworthiness requirements in this domain might be beneficial.</p> | <p>grounding the work within a rigorous explainability framework such as Palacio et al. (2021). However, the primary objective of this study is to propose and implement an agentic, data-driven monitoring framework for SDG 6 rather than to advance theoretical developments in explainable AI.</p> <p>Explainability in our context is addressed pragmatically through transparent feature attribution, interpretable data pipelines, and traceable decision outputs. While we recognise the importance of unified frameworks such as that of Palacio et al., a full integration would substantially</p> |
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| | | broaden the paper's conceptual scope and detract from its applied focus on operationalising trustworthy AI for clean water monitoring. |
| 2 | Sometimes, paragraphs start with a "."?! | Corrected through the document. Changes applied. |

| Number | Second reviewer's comment | How did I address the comment |
|--------|--|---|
| 1 | Minor revisions : identify abbreviations in full before using the abbreviations. Figures content are not clear enough. Figures content should be made larger for better reading. On page 10 it should be Table 1 compares these metrics across the four machine learning modules and not Table 1 | Noted. Diagrams where re-drawn for readability. Abbreviations corrected on first mention. |
| 2 | On page 10 at section 6.2 is should be Table 3 for the top 8 variables and not Table 2. | Revised. |
| 3 | At figure 4 on page 11 the Figure 4D was not discussed. | Provided a paragraph addressing this. |
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| Number | Third reviewer's comment | How did I address the comment |
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| 1 | - Link to prior work: what specific prior application for cholera or other waterborn illnesses have been attempted and what were the findings. The prior work seem to be more generic about ML, XAI etc. It is also not clear how regional factors may impact and inform e.g. the factors between Africa and Brazil (both present in the data) may drive different aspects? | Noted. Revised the related work to include other waterborne illnesses. The aim was not to understand the regional factors. |
| 2 | - Dataset: the dataset only contains 3000 rows and does not seem to be cholera specific? How was this accommodated in the investigation? | The tweets where pulled with Cholera and waterborne diseases. |
| 3 | - Pre-processing: It is not clear what the outcomes of preprocessing was - was there missing or inconsistent data values resulting from human or computer error? What is the perceived quality of the dataset, making it more reliable? The statement "This process ensured the dataset was cleaned, transformed, and ready for robust modelling, contributing to reliable insights on Cholera risk factors" must therefore be substantiated better. | Since this work builds on previous work. I have interested a link to an already published work where the cleaning and pre-processing details were conducted. |
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