Review Form 3

Journal Name:	**Asian Journal of Environment & Ecology**
Manuscript Number:	**Ms_AJEE_129363**
Title of the Manuscript:	**Mercury Metal in Sediment and Water Column of Taluduyunu River and its Control Strategy**
Type of the Article	

General guidelines for the 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.
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PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This document offers crucial information about mercury pollution in the Taluduyunu River, a serious problem brought on by uncontrolled gold mining operations. It draws attention to the concerning concentrations of mercury in water and sediment that surpass quality requirements and present serious hazards to ecosystems and public health. The report emphasizes the necessity of focused initiatives, such as alternative livelihoods, community education, and more stringent enforcement of environmental laws. This study contributes to international efforts to reduce mercury pollution by providing the scientific community with useful information and workable solutions by describing the level of contamination and suggesting integrative control methods.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title should be written as "Mercury Pollution in Sediments and Water of Taluduyunu River: Impacts and Control Strategies" No need to write mercury metal, obvious it is known as metal.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	□ Scientific Details: • Include specific concentrations or ranges of mercury levels in sediments and water columns to provide a quantitative context. • Briefly describe the methods used for mercury analysis (e.g., analytical techniques or instruments). □ Gap and Contribution: • Clearly articulate the gap in knowledge addressed by the study and how this research contributes to it. □ Policy Implications: • Summarize how the findings can inform policy or regulatory actions to mitigate mercury pollution.	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically correct with minor improvements	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Yes it is sufficient based on the current manuscript	

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Is the language/English quality of the article suitable for scholarly communications?	**Specific Suggestions for Each Section** **Abstract** • Rewrite for clarity and precision, focusing on the key findings and implications. • Example Revision: **Original**: "The results show that the mercury content in the sediment and water column is above the quality standard with varying concentrations. And the results also show that the mercury content in the sediment is higher than in the water column." **Revised**: "The study revealed mercury concentrations in both sediments and water columns exceeded quality standards, with higher levels in sediments compared to water columns." **Introduction** • Reduce redundancy. The discussion of mercury's impact on health and ecosystems is repeated multiple times. • Improve sentence structure for fluency. • Example: **Original**: "Mercury pollution in water bodies is a serious environmental problem. It has the potential to pose serious risks to human health and aquatic ecosystems." **Revised**: "Mercury pollution in aquatic systems poses significant risks to both human health and ecosystem stability." **Methods** • Clearly differentiate between tools and materials used in the study. • Improve clarity and structure when describing sampling methods. • Example: **Original**: "This research uses survey and observation methods and laboratories." **Revised**: "This study employed survey and observational methods, supplemented by laboratory analysis." **Results and Discussion** • Integrate tables and figures with explanatory text. Avoid restating data from tables without interpretation. • Simplify language to make scientific points more accessible while maintaining scholarly tone. • Example: **Original**: "The highest concentration, namely 0.8950, is at station 2. Based on field observations, this location is the site of the largest traditional mining activity..." **Revised**: "Station 2 recorded the highest mercury concentration (0.8950 ppm), correlating with its proximity to extensive traditional mining activities." **Conclusion** • The conclusion should be concise and focus on the implications and recommendations. • Avoid introducing new information. • Example Revision: **Original**: "Control through an integrative approach is very important, including a cultural approach, an economic approach, an educational approach and a legal approach in controlling mercury pollution in this river." **Revised**: "An integrative approach, encompassing cultural, economic, educational, and legal strategies, is essential for mitigating mercury pollution in the Taluduyunu River."	
Optional/General comments	Your document on mercury metal in the sediment and water column of the Taluduyunu River is detailed and provides a strong foundation for understanding mercury contamination and its impact. Below are general comments and suggestions for improvement: Strengths: 1. Comprehensive Introduction: The introduction effectively sets the stage by explaining mercury's environmental and health impacts and provides a rationale for the study. 2. Clear Objective: The study's aim to analyze mercury levels and propose control strategies is well-defined. 3. Data Presentation: Tables and figures are used effectively to present complex data, making it easier to interpret trends and findings. 4. Integrative Approach to Solutions: The conclusion provides practical, multi-faceted strategies to address mercury pollution. Suggestions for Improvement: 1. Abstract Clarity: ○ Consider rephrasing sentences for conciseness and flow. For example: "This study analyzes the level of mercury in the sediment and water column of the Taluduyunu River to develop strategies to mitigate mercury pollution."	

	○ Include key numerical results (e.g., the highest mercury concentrations) to emphasize findings. 2. Introduction Depth: ○ Include a brief mention of relevant global standards for mercury contamination for context. For instance, compare local findings with WHO or EPA standards. 3. Methodology Details: ○ Explain why specific sampling stations were chosen (e.g., proximity to mining sites). ○ Provide a brief description of laboratory methods for mercury analysis to enhance replicability. 4. Results and Discussion: ○ Expand on the ecological and human health implications of findings. For example, what does the mercury concentration indicate for local fish species or water use? ○ Include a brief comparison with other studies or regions to contextualize findings. 5. Figures and Tables: ○ Ensure all figures and tables are accompanied by captions that succinctly explain their content. ○ Improve Figure 2 by adding clear axis labels and units for better readability. 6. References: ○ Double-check all references for formatting consistency and accuracy. ○ Include more recent studies (if available) on mercury pollution in similar contexts. 7. Language and Grammar: ○ Revise for typos and grammatical errors (e.g., "Maily" should be "mainly"). ○ Ensure technical terms are consistently used and explained where necessary. 8. Control Strategies: ○ Expand on how the proposed strategies (e.g., education and law enforcement) will be implemented and measured for effectiveness.	

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)***	

Reviewer Details:

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