

Review of: "Revitalizing Key Conditions and Integrated Watershed Management Approach to Sustain Water Availability and Agriculture in Semi-Arid Regions"

Mahsa Mirdashtvan¹

¹ University of Tehran

Potential competing interests: No potential competing interests to declare.

- The title effectively communicates the main focus of the paper, emphasizing the need for revitalizing key conditions in integrated watershed management to ensure sustainable water availability and agriculture in semi-arid regions. It provides a clear indication of the paper's objective and scope.
- The abstract is well-structured and concise, providing a good overview of the paper. However, consider adding a sentence that briefly summarizes the methodology or approach used in the study to enhance completeness. It would be beneficial to include a sentence indicating the geographic focus of the semi-arid regions studied to provide more context for readers.
- The choice of keywords is appropriate and aligns with the main themes of the paper.
Consider adding a few additional keywords that capture specific aspects of the integrated watershed management approach, which could enhance discoverability for readers interested in this field.
Ensure consistency in terminology; for example, "dryland" and "semi-arid" may be used interchangeably in some contexts, so confirm their intended meanings and use them consistently throughout the paper.
- The introduction effectively sets the stage for the paper, providing a comprehensive overview of the global issue of desertification, its impact on dryland regions, and the importance of IWSM. Consider enhancing the geographical specificity, providing more details on past interventions, and ensuring consistency in terminology (e.g., semiarid vs. semi-arid) for further clarity. The call for revitalizing key conditions and amending the IWSM approach is clearly stated and aligns well with the identified challenges.
- The section provides a comprehensive overview of the characteristics and challenges of water availability and agriculture in drylands. The inclusion of figures, classifications, and detailed descriptions enhances the clarity of the content. Consider adding specific examples or case studies to support quantitative statements and further strengthen the narrative. Additionally, maintaining a consistent format for citations (e.g., Christopher et al., 2016) throughout the section would improve readability.
- Section 3 effectively outlines the Integrated Watershed Management (IWSM) approach, emphasizing its holistic nature and relevance to addressing challenges in drylands. The identification of constraints provides a practical understanding of the issues faced in implementing IWSM. The recommendations for future agriculture and the call for a paradigm shift add depth and forward-looking perspectives to the discussion. Consider providing specific examples or case studies to illustrate successful implementations of IWSM and how they overcame constraints. Additionally, maintaining consistent

citation formatting throughout the section would improve readability.

- In section 4, the text emphasizes the integration of these key conditions within the IWSM approach for sustainable water availability and agriculture in semiarid regions, highlighting the importance of research, technology, and community participation in achieving successful outcomes.
- Overall, the conclusions effectively summarize the key insights, and the suggested enhancements aim to provide additional clarity, context, and actionable recommendations for stakeholders involved in IWSM.
- The text is generally in fluent English, and the ideas are well-articulated. However, as with any document, there is always room for improvement. Some sentences are complex and might benefit from slight restructuring for enhanced clarity. Additionally, specific examples or case studies could be incorporated to illustrate certain points. Overall, the content is informative, but a thorough proofread for minor improvements in sentence structure and coherence might be helpful.