

REVIEWER'S REPORT

Manuscript No.: JNAVES-024

Title: Water Scarcity and Irrigation Management for Sustainable Agricultural Development: Challenges, Innovations, and Future Perspectives.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer Id: JPR-136

Reviewer's Comment for Publication.

The manuscript addresses a highly relevant and globally significant topic concerning water scarcity and sustainable irrigation management in agriculture. The review is well structured, clearly written, and provides a comprehensive overview of the causes of water scarcity, its impacts on agricultural systems, modern irrigation technologies, water conservation practices, climate-smart irrigation approaches, and future prospects. The manuscript successfully highlights the importance of efficient water management in ensuring food security, environmental sustainability, and agricultural resilience under changing climatic conditions.

A few minor revisions are recommended to further enhance the quality of the manuscript. The authors should consider incorporating more recent literature and updated global statistics on water scarcity and irrigation efficiency to strengthen the review's relevance. The discussion on precision irrigation technologies and artificial intelligence applications could be expanded with recent case studies and practical examples from different regions. Additionally, a more critical analysis of the economic and social barriers to technology adoption, particularly in developing countries, would improve the depth of the review. The reference list should be carefully checked for completeness and consistency according to the journal's prescribed format. Minor language editing and proofreading are also suggested to improve readability and ensure uniform presentation throughout the manuscript.

Overall, the manuscript provides valuable insights into sustainable water resource management and modern irrigation strategies. Subject to the incorporation of the suggested minor revisions, the manuscript is recommended for publication.