

REVIEWER'S REPORT

Manuscript No.: JNAVS -031

Title: SUSTAINABLE IRRIGATION MANAGEMENT FOR IMPROVING WATER USE EFFICIENCY AND AGRICULTURAL PRODUCTIVITY.

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-186

Reviewer's Comment for Publication.

The manuscript addresses an important and timely topic concerning sustainable irrigation management and its role in improving water-use efficiency and agricultural productivity. The article is well organized and written in a clear and concise manner. The discussion covers major irrigation techniques including drip irrigation, sprinkler irrigation, deficit irrigation, rainwater harvesting, and smart irrigation technologies. The manuscript highlights the environmental, economic, and productivity benefits of sustainable irrigation practices.

Strengths:

1. The topic is highly relevant to current global challenges related to water scarcity, climate change, and food security.
2. The manuscript is logically structured and easy to understand.
3. Important sustainable irrigation approaches and emerging technologies are adequately introduced.
4. The paper emphasizes both environmental and economic benefits of efficient irrigation management.

Minor Revisions Suggested:

1. Include more recent references (2020–2025) to strengthen the literature review and improve the manuscript's contemporary relevance.
2. Provide quantitative data or comparative statistics demonstrating water savings and yield improvements achieved through different irrigation systems.
3. Expand the discussion on regional adoption challenges, particularly in developing countries where financial and infrastructural constraints are significant.
4. Include a comparative table summarizing irrigation methods, water-use efficiency, advantages, limitations, and suitable crop types.
5. Improve the Future Perspectives section by discussing practical applications of artificial intelligence, remote sensing, and climate-smart irrigation systems with recent examples.

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6. Ensure consistency in section numbering and formatting throughout the manuscript.

Overall Assessment:

The manuscript provides a useful overview of sustainable irrigation management and its contribution to agricultural sustainability. The suggested revisions are relatively minor and will improve the scientific depth, practical relevance, and overall quality of the article. Therefore, I recommend acceptance after minor revision.