

Peer Review

Review of: "Climate and Environmental Changes: Reflections and Prospects for the Future of the Mediterranean Area — Food Security and Climate Change: Agricultural Considerations"

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Dear Dr. Germana Borsetta,

I find your work both interesting and well-structured. However, I believe there are some aspects that could be further refined and expanded upon:

Lack of Quantitative Data: I suggest incorporating studies on virtual water flows across Mediterranean countries to assess potential policies of externalizing water risk—particularly in agriculture—by northern Mediterranean nations at the expense of those in the south. These policies are often framed as development strategies. While robust interpretative frameworks are still lacking, quantitative data on virtual water flows would significantly strengthen your analysis. For reference, you may consider sources such as [this study](https://www.sciencedirect.com/science/article/abs/pii/S0048969715002028).
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Clarification of Key Terms: The terms "productivity" and "increased production" should be more clearly defined. Are we referring to increased yields in industrial monoculture systems or in an agroecological context? Conventional productivity metrics often overlook traditional agricultural techniques, which, despite being difficult to quantify in terms of tons per hectare, contribute significantly to food security.

To illustrate, in many North African date palm or olive groves, intercropping with vegetables, wheat, and fodder is common. How, then, can the yield of wheat in such a system be meaningfully compared

to a monoculture wheat field in the Po Valley? Addressing this would enhance the depth of your discussion.

Recommendations and Guidelines: Formulating recommendations and guidelines for the entire region is inherently challenging due to its diversity. A highly generalized approach may be necessary, but specific recommendations tailored to different territories remain complex. I suggest adopting a conservative approach—one that avoids externally imposed frameworks aimed at homogenization. Instead, the focus should be on empowering local communities by integrating modern technologies within a scientific framework that respects and strengthens traditional knowledge, supported by rigorous studies and collaborative efforts.

Other Influential Factors: In several regions, tourism and demographic pressures play a crucial role and are closely linked to the issues discussed in your paper. These factors should be considered to provide a more comprehensive analysis.

Value Chain Considerations: A dedicated section on the value chain within the food production system would be beneficial, offering deeper insights into the economic and social dynamics at play.

Overall, I consider your work valuable. However, given the complexity and breadth of the topic, I believe it would benefit from further development and elaboration. Additionally, I strongly recommend expanding the bibliography to support and enrich your arguments.

Declarations

Potential competing interests: No potential competing interests to declare.