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Peer Review

Review of: "Can Population Decline Solve the Climate Change Problem? A System Dynamics, Mind Sized Analysis"

Nadia Matarazzo[1]

1. University of Naples Federico II, Italy

The literature review is sufficiently broad and complete.

However, some statements are not adequately substantiated and lack appropriate references. For example, in Section 2, the author states: *"The growth of the human population has been slowing down over the past decades as a result of declining fertility, a phenomenon often termed the 'demographic transition.'"* This claim is supported only by a previous paper by the same author. Besides appearing somewhat self-referential, this citation does not properly acknowledge the work of demographers who originally developed the concept of the demographic transition and extensively studied the factors influencing population dynamics.

The discussion is overly concise and simplified, as it identifies technological innovation in carbon storage and renewable energy production as the sole factor that could undermine the predictive validity of the proposed model.

If the theory of demographic transition is genuinely taken into account, the underlying demographic assumptions should also consider a range of socioeconomic variables, such as education, income, and broader development indicators, including the Human Development Index (HDI). These variables are not even mentioned in the paper. It is, in fact, lifestyles—which by definition vary across space and time—that influence resource consumption, pollution levels, and, consequently, climate change.

Although the conclusions, albeit very brief, ultimately acknowledge this broader perspective, the manuscript would nevertheless benefit from revision, particularly with regard to the discussion section.

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Declarations

Potential competing interests: No potential competing interests to declare.