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SUSTAINABILITY OF AGRICULTURAL COMMUNITIES - KHAN YOUNIS

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Abstract

Background: This research examines the development of sustainable agricultural communities in conflict-affected regions, focusing on Al-Mawasi in Khan Younis, Gaza Strip—a historically fertile agricultural area severely impacted by war and blockade. Global food security is increasingly threatened by armed conflicts, natural disasters, and climate change, which disrupt agricultural production and food supply chains, particularly in communities reliant on agriculture for their livelihoods. Traditional humanitarian aid often falls short in fostering long-term self-reliance, underscoring the need for integrated socio-environmental and spatial strategies that enhance resilience, protect natural resources, and strengthen economic and social stability.

Objectives: This study aims to explore how agricultural communities in Al-Mawasi can achieve sustainability under conditions of conflict and disaster. It seeks to assess the impacts of land and infrastructure degradation on food security and community well-being, and to develop design models that enhance agricultural productivity, improve food security, empower farmers through training and appropriate technologies, and support economic stability while reducing poverty.

Methods: A mixed-methods approach was employed, combining literature review, spatial and environmental analysis, expert interviews, and three-dimensional modeling to evaluate site-specific natural and infrastructural resources. This approach informed the development of integrated strategies incorporating modern agricultural practices, flexible housing solutions, and socio-economic infrastructure.

Results: The findings indicate that sustainable agricultural techniques can significantly increase productivity, optimize the use of natural resources, and support adaptable housing systems. The study also demonstrates the potential to rehabilitate degraded lands into productive agricultural zones. Additionally, integrated planning approaches foster collaboration between local residents and displaced populations through shared markets and communal spaces, promoting diversified livelihoods and strengthening community resilience.

Conclusion: The sustainability of agricultural communities in conflict-affected areas is a multidimensional challenge involving environmental, economic, and social systems. By integrating resource management,



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flexible housing, productive landscapes, and socio-economic infrastructure, communities can transform vulnerability into resilience. This framework offers a transferable model for post-conflict recovery, positioning agricultural communities as active agents of sustainable development rather than passive recipients of aid.

Keywords: Khan Younis; Sustainable agriculture; Agricultural communities; Community resilience; Conflict-affected regions.