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Role of Organic Farming for Sustainability in Agriculture: Geographic and Ecological Perspectives

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Abstract: *The growing world environmental degradation, effects of climate change and natural resources exploitation through the intensive use of conventional agricultural practices has led to agricultural sustainability emerging as a global concern. Rampant use of synthetic fertilizers, pesticides and non-mycorrhizal production systems has led to soil erosion, water contamination, loss of biodiversity and rising of greenhouse gas emissions, hence posing a risk on the sustainability of agricultural production systems in the long term. In this regard, organic farming has developed as a potential and ecologically viable option, which focuses on the ecological balance, preservation of natural resources, and minimization of environmental impact the research paper will discuss how organic farming contributes to the agricultural sustainability especially through geographic and ecological point of view. It discusses some major environmental reduction initiatives that are inherent in organic farming systems such as soil protection by management of organic matter, sustainable use of water resources, biodiversity protection, as well as the protection of climate change through the reduced use of fossil fuel, as well as the sequestration of more carbon. The paper collates evidence at the global scale down to regional level in order to show how organic agricultural techniques have been adapted in different agro-ecological regions that span tropical and temperate regions to arid and semi-arid environments.*

Keywords: Organic farming, sustainable agriculture, environmental minimization, agro-ecology, biodiversity, climate resilience

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