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Climate-smart agriculture for sustainable food production in drought-prone regions**Amelia Johnson**

University of Cape Town, South Africa

Climate change has significantly affected agricultural productivity in drought-prone regions, leading to food insecurity and economic instability. This study explores climate-smart agricultural practices such as conservation farming, drip irrigation, crop diversification, and soil moisture conservation techniques. The research highlights how sustainable farming methods can enhance resilience among farming communities while reducing greenhouse gas emissions. Findings indicate that integrating climate adaptation strategies with local agricultural knowledge improves productivity and long-term

environmental sustainability. The study recommends stronger policy support and investment in sustainable agricultural technologies to address future climate challenges.

Biography

Amelia Johnson is an environmental scientist specializing in climate-smart agriculture and sustainable land management. Her research focuses on improving agricultural productivity under changing climatic conditions through innovative farming practices and community-based adaptation strategies. She has contributed to several international projects related to food security and climate resilience in Africa.