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Nota di contenuto	Climate-resilient strategies for sustainable management of water resources and agriculture -- Soil Health and Carbon Sequestration in Agricultural Systems Under Changing Climate -- Addressing Wheat Yellow Rust in a Changing Climate -- Biochar-Soil-Plant interactions: A cross talk for sustainable agriculture under changing climate -- Microbial Activity Involved in Nitrous Oxide Emissions from Soil -- Emerging plant Disease prediction through forewarning model and artificial Intelligence (AI) under climate change scenario -- Enhancing Climate Resilience in Sugarcane: A Review of Physiological and Molecular Responses to Water Stress -- Mitigating and adapting to climate change through climate-smart agriculture -- Ensuring biodiversity maintenance and food security through sustainable

intensification: an environment-friendly approach -- Next-Gen Agriculture: How AI-Driven 3D Farming Builds Resilience Against Global Food Crises -- The Role of Digital Agriculture in Mitigating Climate Change and Ensuring Food Security: An Overview -- Harnessing Digital Agriculture to Combat Climate Change and Feed the Future -- Heavy Metals Pollution and Role of Soil PGPR: A Mitigation Approach -- Climate Resilient Floriculture: Adapting Cut Flower and Foliage Production to a Changing Climate -- Integrated Desert Farming -- Ripple Effect: The Role of Climate Change Anxiety, Nature Connectedness, and Pro-Environmental Behavior in Building Climate Resilience and Mitigating Psychological Distress Among Flood-Affected and Non-Affected Youth -- Connecting Climate-Resilient Farming Practices with Regenerative Agriculture for Enhancing Productivity, Profitability, and Environmental Security -- Climate change, Extension services and the viability of smallholder agriculture: Voices of Communal Farmers in Lupane, Zimbabwe.

Sommario/riassunto

This book aims to provide a holistic and interdisciplinary understanding of the social, ecological, technological, and psychological dimensions of climate-resilient agriculture. The major focus of this volume is to highlight people-centered adaptation strategies, the role of digital tools and local innovations, and the mental and community well-being aspects in response to climate change impacts on agriculture. In the context of intensifying climate variability, sustainable agriculture must evolve beyond biophysical interventions to include the human and institutional factors that determine resilience. This volume explores themes such as climate-resilient water and soil management, AI-enabled prediction of crop diseases, biochar and microbial innovations, and floriculture under stress. It features specialized content on digital agriculture, 3D farming, and socio-behavioral responses to climate change, including an in-depth study on climate anxiety among youth. Other chapters address sustainable intensification, gender-sensitive approaches, smallholder farmer viability, desert agriculture, and the integration of Indigenous knowledge and extension systems. These themes are supported by empirical case studies, regional evaluations, and conceptual frameworks aimed at driving transformative adaptation. This book is of interest to climate scientists, agricultural researchers, social scientists, extension workers, environmental psychologists, development practitioners, and policy makers working at the intersection of agriculture and climate change. It will also serve as a reference for undergraduate and postgraduate students in disciplines such as agriculture, environmental science, rural sociology, ecology, psychology, and sustainable development.