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Nota di contenuto	Advanced Remote Sensing Techniques for Cropland Monitoring using the AquaCrop Model -- Enhancing Phosphorus Sustainability in Mungbean via PROM and Microbial Inoculants -- Biparjoy Cyclone Assessment -- Crop Acreage and Yield Estimation Using Remote Sensing -- Multi Criteria Land Suitability Analysis for Agriculture in Jalpaiguri District West Bengal Using AHP and GIS Techniques.
Sommario/riassunto	Food security is a critical global challenge, aiming to provide sufficient and healthy food for all. The United Nations has set Sustainable Development Goals (SDGs) to achieve global prosperity while ensuring environmental protection. Machine learning (ML) techniques play a crucial role in understanding and predicting food security. Key applications include cropland mapping, crop type identification, yield

prediction, and field delineation. Challenges include handling complex data and ensuring rigorous evaluation. Looking ahead, advanced techniques such as AI and interdisciplinary collaborations will drive progress toward a hunger-free and sustainable future. This book concentrates on the fundamentals and uses of environment science perspective on Food security using cutting-edge methods of spatial information and artificial intelligence. Experts and researchers in the fields of agriculture, environmental science and engineering, disaster management, remote sensing, and geographic information systems have contributed to this volume. .

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