1. Record Nr. UNINA9910988290803321 Autore Chen Jiandong Titolo Carbon Sequestration of Terrestrial Vegetation in China: Based on Satellite Remote Sensing Technology / / by Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng Singapore:,: Springer Nature Singapore:,: Imprint: Springer., 2025 Pubbl/distr/stampa **ISBN** 981-9612-49-7 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (XVII, 217 p. 80 illus., 79 illus. in color.) Collana Resources, Climate and Sustainable Development, , 3005-0510 Disciplina 333.79 Soggetti Power resources Environmental economics Resource and Environmental Economics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico -- Chapter 1. Introduction, Jiandong Chen -- Chapter 2. Selection and Nota di contenuto Comparison of Satellite Data, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 3. Measurement of Vegetation Carbon Sequestration Data in China, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 4. Changes and Characteristics of Total Vegetation Carbon Sequestration in China, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 5. Characteristics of Carbon Sequestration in China's Districts and Counties, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 6. Changes and Characteristics of Total Carbon Sequestration by Grid Vegetation in China, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 7. Factors Decomposing of Carbon Sequestration by Vegetation in China under County Perspective, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng -- Chapter 8.2021-2030 China Vegetation Carbon Sequestration Predictive Analysis --Chapter 9. Policy Proposals, Jiandong Chen, Zhiwen Li, Malin Song, Ying Feng. This book estimates terrestrial vegetation carbon sequestration data Sommario/riassunto based on remote sensing satellite data, collects the temporal and spatial characteristics of carbon sequestration by vegetation at county level and grid scale in China, and predicts the future change of carbon

sequestration by vegetation in China. Based on the major strategic

development goals and specific practices of China's carbon neutrality, this book shifts the research perspective from the side of carbon reduction to the weaker side of carbon sequestration. It not only broadens and enriches the research boundaries and theoretical connotation in the field of carbon neutrality, but also provides a perspective reference for further research on carbon sequestration by vegetation, which has pioneering academic value for future research on carbon dioxide. The satellite data is collected to calculate China's long time series and multi-type district and county vegetation carbon sequestration data set, which can meet different research needs and application scenarios. The practical value lies in providing basic data for the research of carbon neutrality, the establishment of carbon trading market and the calculation of vegetation carbon sink, and providing an important reference index for evaluating the ecological and environmental effects of land change. This book combines remote sensing technology, Geographic Information Science (GIS), spatial visualization technology and index decomposition technology to measure vegetation carbon sequestration in counties and districts of China, reveals the spatial-temporal dynamic change process of vegetation carbon sequestration, and explores the driving influence of social factors.