1. Record Nr. UNINA9911007470203321 Autore Li Xin **Titolo** The Three Poles of the Earth: Challenges to Sustainable Development in Fragile Environments / / by Xin Li, Anmin Duan, Donghui Shangguan, Lei Wang, Chaolun Li, Tao Che, Xinwu Li, Rui Jin, Youhua Ran Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9777-21-6 Edizione [1st ed. 2025.] 1 online resource (XV, 330 p. 179 illus., 175 illus. in color.) Descrizione fisica Collana Sustainable Development Goals Series, , 2523-3092 Disciplina 910.021 Soggetti Geography Human geography Sustainability Climatology Regional Geography **Human Geography** Climate Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Three Poles of the Earth and Sustainable Development Goals of the Nota di contenuto United Nations -- Future Projection of Climate Change in the Three Poles -- Cryosphere Disasters in the Three Poles and Responses --Land Water and Ecosystem -- Marine Environment -- Big Data Platform for Three Poles -- Big Data Products for Supporting Sustainable Development -- Potential Pathway to Achieve the Sustainable Development Goals in the Three Poles. The book summarizes the latest research achievements of the "CAS Sommario/riassunto Earth Poles: Big Data for the Three Poles" project in actively responding to the United Nations' sustainable development goals (SDGs). The book covers six aspects: projections of future climate change in polar regions, assessment and response to climate-related cryospheric disasters, land water resource and terrestrial ecological environments in polar regions, marine environmental changes, the SDG big data platform, and big data products that support sustainable development.

The book emphasizes the critical role of Earth's three poles in achieving

global sustainable development, and identifies current shortcomings, and outlines major challenges. However, the book provides a comprehensive review of scientific actions and the latest research progress toward achieving SDGs at Earth's three poles. Furthermore, the book introduces the three-pole big data platform and data products that support calculations and assessments for polar SDGs. Finally, the book offers recommendations for revising SDGs and indicators specific to the three-pole regions, and discusses pathways to achieve sustainable development in these regions. Ultimately, the book aims to address the gaps between polar sustainable development and the United Nations' SDGs, ensuring that the sustainable development of the Earth's three poles keeps pace with global efforts.