Record Nr. UNINA9910787155003321 Landscapes on the edge: new horizons for research on Earth's surface **Titolo** // Committee on Challenges and Opportunities in Earth Surface Processes, Board on Earth Sciences and Resources, Division on Earth and Life Studies, National Research Council of the National Academies Pubbl/distr/stampa Washington, District of Columbia:,: The National Academies Press,, 2010 ©2010 **ISBN** 0-309-15268-2 0-309-14025-0 Descrizione fisica 1 online resource (180 p.) Disciplina 551.13072 Soggetti Landscapes Land use Climatic changes Earth (Planet) Surface Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. The importance of Earth surface processes -- Grand challenges in Earth Nota di contenuto surface processes -- Four high-priority research initiatives in Earth surface processes -- Mechanisms for developing initiatives and sustaining growth in Earth surface processes. "During geologic spans of time, Earth's shifting tectonic plates, Sommario/riassunto atmosphere, freezing water, thawing ice, flowing rivers, and evolving life have shaped Earth's surface features. The resulting hills, mountains, valleys, and plains shelter ecosystems that interact with all life and provide a record of Earth surface processes that extend back through Earth's history. Despite rapidly growing scientific knowledge of Earth surface interactions, and the increasing availability of new monitoring technologies, there is still little understanding of how these processes generate and degrade landscapes. Landscapes on the Edge identifies nine grand challenges in this emerging field of study and proposes four

high-priority research initiatives. The book poses questions about how

our planet's past can tell us about its future, how landscapes record climate and tectonics, and how Earth surface science can contribute to developing a sustainable living surface for future generations."-- Publisher's description.