

1. Record Nr.	UNINA9910366627003321
Titolo	Himalayan Weather and Climate and their Impact on the Environment / / edited by A.P. Dimri, B. Bookhagen, M. Stoffel, T. Yasunari
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-29684-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIV, 577 p. 210 illus., 185 illus. in color.)
Disciplina	550 551.695
Soggetti	Physical geography Sustainable development Climatology Hydrogeology Ecology Paleoecology Earth System Sciences Sustainable Development
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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#### Sommario/riassunto

This book proposes a unique and comprehensive integrated synthesis of the current understanding of the science of Himalayan dynamics and its manifestations on physical systems and ecosystems at different spatial and temporal scales. In particular, this work covers relevant aspects of weather and climate, paleoclimate, snow, glacier and hydrology, ecology/forestry among other topics associated with the Himalayas. It highlights the role of the Himalayas in defining local to regional to global scale impact on weather and climate. It includes Himalayan impact on defining physical basis of changing glacier systems, permafrost melting/thawing, climate variability, and hydrological balances. As a result, this volume represents an important synthesized overview both for environmental and earth science researchers, and for policy makers and stakeholders interested in the physical and dynamical processes associated with the Himalayan massif.

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