

1. Record Nr.	UNINA9910298384903321
Titolo	Climate Change and United States Forests // edited by Peterson David L., James M. Vose, Toral Patel-Weynand
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
ISBN	94-007-7515-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (289 p.)
Collana	Advances in Global Change Research, , 1574-0919 ; ; 57
Disciplina	634.90973
Soggetti	Climate change Ecosystems Regional planning Urban planning Social sciences Fossil fuels Climate Change Landscape/Regional and Urban Planning Social Sciences, general Fossil Fuels (incl. Carbon Capture) Science, Humanities and Social Sciences, multidisciplinary
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I Seeking the Climate Change Signal -- Chapter 1 Recent Changes in Climate and Forest Ecosystems -- Chapter 2 Projected Changes in Future Climate -- Part II Effects of Climatic Variability and Change -- Chapter 3 Forest Processes -- Chapter 4 Disturbance Regimes and Stressors -- Chapter 5 Climate Change and Forest Values -- Chapter 6 Regional Highlights of Climate Change -- Part III Responding to Climate Change -- Chapter 7 Managing Carbon -- Chapter 8 Adapting to Climate Change -- Chapter 9 Risk Assessment -- Part IV Scientific Issues and Priorities -- Chapter 10 Research and Assessment in the 21st Century -- Index.
Sommario/riassunto	This volume offers a scientific assessment of the effects of climatic

variability and change on forest resources in the United States. Derived from a report that provides technical input to the 2013 U.S. Global Change Research Program National Climate Assessment, the book serves as a framework for managing U.S. forest resources in the context of climate change. The authors focus on topics having the greatest potential to alter the structure and function of forest ecosystems, and therefore ecosystem services, by the end of the 21st century. Part I provides an environmental context for assessing the effects of climate change on forest resources, summarizing changes in environmental stressors, followed by state-of-science projections for future climatic conditions relevant to forest ecosystems. Part II offers a wide-ranging assessment of vulnerability of forest ecosystems and ecosystem services to climate change. The authors anticipate that altered disturbance regimes and stressors will have the biggest effects on forest ecosystems, causing long-term changes in forest conditions. Part III outlines responses to climate change, summarizing current status and trends in forest carbon, effects of carbon management, and carbon mitigation strategies. Adaptation strategies and a proposed framework for risk assessment, including case studies, provide a structured approach for projecting and responding to future changes in resource conditions and ecosystem services. Part IV describes how sustainable forest management, which guides activities on most public and private lands in the United States, can provide an overarching structure for mitigating and adapting to climate change.

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