

## *Climate Savvy*

**SINCE THE TERM “ADAPTATION” FIRST APPEARED WITH** regard to climate change in the 1992 charter for the United Nations Framework Convention on Climate Change, instances of warmer temperatures, rising sea levels, and climatic variability have only increased in number and magnitude. Unfortunately, many resource management strategies remain the same. “We are at a crossroads—or perhaps a traffic circle—of options about our future, including decisions about how we react to the reality of climate change,” authors Lara J. Hansen and Jennifer R. Hoffman say in the very first sentence of *Climate Savvy: Adapting Conservation and Resource Management to a Changing World*. In the context of climate change, adaptation refers to the human efforts to reduce the negative effects of climate change, a field that the au-

thors say is rapidly evolving. The ultimate goals of climate change adaptation are to improve resource resilience, support sustainable development, manage natural resources for ongoing use, and protect human well-being.

This optimistic and pragmatic handbook is written in a popular style, with lots of sidebars and explanations; however, the depth of scientific content makes it worthy of being called an academic text, and reflects the authors' expertise. Hoffman began studying the effects of global change in 1992 as a toxicologist, and this experience influenced her perspective during her PhD work in marine ecology at the University of Washington. Hansen worked as chief climate scientist for the World Wildlife Fund Global Climate Change Programme and as a research ecologist for the U.S. Environmental Protection Agency. Her first climate change-related work emerged during her doctorate at the University of Santa Cruz. Together, these two climate change leaders founded EcoAdapt, a nonprofit focused on adapting conservation and resource management to climate change.

The authors provide numerous suggestions and ideas on how to move toward incorporating the reality of climate change into future planning. "We cannot rest on our laurels, nor can we bury our heads in the sand. We have got to make conservation and resource management climate-savvy. We need to adapt conservation and resource management to climate change," they write. Hansen and Hoffman describe actions and ideas that are needed in order to avoid the worst-case scenarios of climate change, while providing current, sound, and accepted research on climate change to emphasize their points along the way.

In this book they highlight ideas and tools for assessing and reducing vulnerability to climate change, including strategies to strengthen protected areas and protect vulnerable species, and discussions about maintaining connectivity and resource resilience. Other topics include managing for uncertainty, reducing stressors (pollutants, pests, invasive species) that interact negatively with climate change, reducing local and regional effects of climate change, and adapting management strategies for regulating harvests and pollutants while integrating the needs of both nature and people.

The book is written for anyone with an interest in enacting, or the ability to enact, climate change adaptation, either through public policy or private endeavor. The authors encourage politicians, land managers, conservationists, and government agencies to act now. "Scientific understanding of climate change and its effects on physical, chemical, and biological systems is rapidly evolving, and will continue to do so. We need to add this new informa-

tion to our plans as we get it, but we cannot wait until we get it all because we will never get it all,” they say.

In the final pages, the authors call for more cross-sector collaboration and insist that greater creativity is needed to find solutions at a sufficiently rapid pace. “We need to blow the sides off the box and look out to the horizon, appreciating both the magnitude of the challenge and the range of options it presents. When it comes to addressing complex problems like climate change, creativity and the ability to integrate examples from multiple arenas are our best assets.”

## Reference

Hansen L. J., and J. R. Hoffman. 2010. Climate savvy: Adapting conservation and resource management to a changing world. Island Press, Washington D.C., USA.

—Amy Stevenson and Jonathan Nawn

