HANDBOOK OF CLIMATE CHANGE AND AGROECOSYSTEMS

Impacts, Adaptation, and Mitigation

ICP Series on Climate Change Impacts, Adaptation, and Mitigation – Vol. 1

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Impacts, Adaptation, and Mitigation

editors

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(Columbia Univ. and Goddard Institute for Space Studies, USA)

Vol. 1: Handbook of Climate Change and Agroecosystems:
Impacts, Adaptation, and Mitigation
edited by Daniel Hillel and Cynthia Rosenzweig

Preface

The ICP Series on Climate Change Impacts, Adaptation, and Mitigation is dedicated to elucidating the integrated impacts of climate change, and to furthering effective responses to this global challenge. The series is designed to present and integrate the work of leading researchers in the world regarding climate change mitigation and adaptation for key sectors and systems.

The portending and all-pervading process of climate change, induced by the progressive anthropogenic accumulation of radiatively active gases in the atmosphere, can be expected to involve an exceedingly complex set of secondary effects and interactions. Because of their scale and complexity, the effects are likely to cascade through the entire biosphere and hydrosphere, impacting all life on earth and specifically bearing upon every aspect of human concern and endeavor.

Hence the task of anticipating the potential effects of climate change demands that scientists, who habitually concentrate upon specific sets of phenomena, deliberately widen their field of vision and cooperate across disciplines to encompass increasingly complex interactions. That trans-disciplinary cooperation, furthermore, entails developing effective responses to the changing climate. Such responses will include mitigation actions aimed at reducing the concentrations of greenhouse gases in the atmosphere (thus avoiding potential long-term risks) and adaptation strategies designed to accommodate and adjust to climate changes that cannot be avoided.

As the collective scientific and practical knowledge of the processes and responses involved in climate change continues to grow, the ICP Series on Climate Change Impacts, Adaptation, and Mitigation will address important aspects of the topic periodically over the coming years. Hence this volume is offered as the first in what is to be a continuing series on the interactions of climate change with a broad range of sectors and systems.

Daniel Hillel and Cynthia Rosenzweig
Editors

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