

Climate change and human health

RISKS AND RESPONSES

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WORLD HEALTH ORGANIZATION

GENEVA

2003

WHO Library Cataloguing-in-Publication Data

Climate change and human health : risks and responses / editors : A. J. McMichael . . .
[et al.]

1.Climate 2.Greenhouse effect 3.Natural disasters 4.Disease transmission
5.Ultraviolet rays—adverse effects 6.Risk assessment I.McMichael, Anthony J.

ISBN 92 4 156248 X

(NLM classification: WA 30)

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Designed in New Zealand

Typeset in Hong Kong

Printed in Malta

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Preface

There is now widespread consensus that the Earth is warming at a rate unprecedented during post hunter-gatherer human existence. The last decade was the warmest since instrumental records began in the nineteenth century, and contained 9 of the 10 warmest years ever recorded. The causes of this change are increasingly well understood. The Third Assessment Report of the Intergovernmental Panel on Climate Change, published in 2001, goes further than its predecessors, stating that *“There is new and stronger evidence that most of the warming observed over the last 50 years is likely to be attributable to human activities”*, most importantly the release of greenhouse gases from fossil fuels.

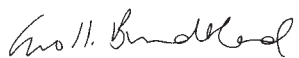
Stresses on the climate system are already causing impacts on Earth’s surface. These include not only rising surface temperatures, but also increasingly frequent floods and droughts, and changes in natural ecosystems, such as earlier flowering of plants, and poleward shifts in the distribution of several species. All of these changes are inextricably linked to the health of human societies. Climatic conditions affect human well-being both directly, through the physical effects of climatic extremes, and indirectly, through influences on the levels of pollution in the air, on the agricultural, marine and freshwater systems that provide food and water, and on the vectors and pathogens that cause infectious diseases.

As it is now widely accepted that humans are influencing global climate, decision makers are now focusing on the type and timing of actions to limit the rate of change. Attention is shifting to the balance between the possible impacts of climate change, and the economic costs, technological advances and societal adaptations that are necessary for mitigation.

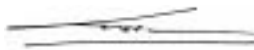
International agreements, supported by hard science, are proving effective in combating wide-ranging environmental threats such as ozone depletion and long-range transboundary air pollution. Can similar agreements be implemented to address the more complex risks posed by global climate change? Scientific analysis in general, and the health sector in particular, need to inform and help advance ongoing policy discussions. Firstly, the scientific community must produce rigorous and balanced evidence not only of the breadth and magnitude of climate change effects, but also of how they are distributed across populations, and over time. Just and equitable decisions on appropriate responses to climate change can only be reached by giving consideration to all those affected by policy actions (or inactions), including future generations. Secondly, as some degree of continued climate change is now inevitable, it is necessary to identify vulnerable populations, and formulate policies and measures to help them adapt to changing conditions.

This book, prepared jointly by the World Health Organization, the World Meteorological Organization and the United Nations Environment Programme,

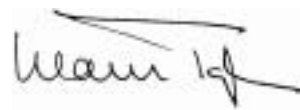
works towards these ends. It provides a comprehensive update of a previous review, published in 1996. More importantly, it expands the scope of the review to include quantitative estimates of the total health impacts of climate change. It lays out the steps necessary to further scientific investigation and to develop strategies and policies to help societies adapt to climate change.



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Acknowledgements

The World Health Organization, World Meteorological Organization and United Nations Environment Programme wish to express their appreciation to all those whose efforts made this book possible.

The following provided review comments, ideas, or made a major contribution to analyses that underpin the work presented in this book: Natasha Andronova, Michael Schlesinger, (University of Illinois at Urbana-Champaign, USA); Martha Anker, Monika Blössner, Robert Bos, Charles Delacollette, Alan Lopez, Alessandro Loretto, Chris Murray, Mercedes de Onis, Anthony Rodgers, Colin Roy, Mike Ryan, Stephen Vander Horn (World Health Organization, Geneva, Switzerland); Bruce Armstrong (University of Sydney, Sydney, Australia); Ian Burton (Environment Canada, Toronto, Canada); Sandy Cairncross, Paul Coleman, Clive Davies, Bo Draser, Andy Haines (London School of Hygiene and Tropical Medicine, London, England), Elsa Casamiro (SIAM project, Portugal); Will Checkley (Johns Hopkins University, Baltimore, USA); Majid Ezzati (Resources for the Future, Washington DC, USA); Roger Few, Matthew Livermore, Tim Mitchell, David Viner (University of East Anglia, Norwich, England); Chuck Hakkarinen (Electrical Power Research Institute, Palo Alto, USA); Simon Hay (University of Oxford, Oxford, England); Frank de Hruijl (University Hospital Utrecht, Utrecht, the Netherlands); Saleemul Huq (International Institute for Environment and Development, London, England); John Last (University of Ottawa, Ottawa, Canada); Neil Leary (AIACC, Washington DC, USA); David Le Sueur, Frank Tanser (Medical Research Centre, Mtubatuba, South Africa); Pim Martens (International Centre for Integrative Studies, Maastricht, the Netherlands); Gordon McBean (University of Western Ontario, London, Canada); Robert Nicholls, Theresa Wilson (University of Middlesex, Enfield, England); Eric Noji (U.S. Centers for Disease Control, Atlanta, USA); Dieter Riedel (Health Canada, Ottawa, Canada); Roger Street (Environment Canada, Toronto, Canada); Richard Tol (University of Hamburg, Hamburg, Germany); Mark Wilson (University of Michigan, Ann Arbor, USA); Rosalie Woodruff (Australian National University, Canberra, Australia).

Particular thanks, to Jo Woodhead, for patient editing of the text, to Liza Furnival for preparing the index, and to Eileen Tawffik for administrative support.