

Bookworm

Climate Change: Observed Impacts on Planet Earth

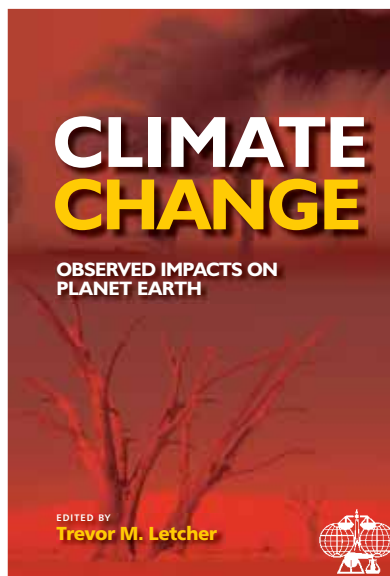
Edited by Trevor M. Letcher

Elsevier, 2009

[ISBN: 044453301X; ISBN 13: 9780444533012]

Climate Change can be considered as a sequel to Trevor Letcher's recent book *Future Energy* (published in 2008, also by Elsevier). The two are inexorably linked.

The book is divided into 25 chapters, each one written by an expert in the field. The first five chapters focus on the possible causes of climate change, while in particular the first chapter deals with the possible effects of anthropogenic greenhouse gases. Chapter six discusses the geological history of climate change, and puts the whole idea of climate change into perspective. The remaining 19 chapters focus on a variety of global changes brought about by climate change. These include detailed scientific observations on weather patterns; plants and plant pathogens; lichens; bird, insect, and animal ecology; sea temperature and ocean currents; rising sea levels; and coastal erosion and ice sheets. If there ever was doubt about whether global and climate changes are taking place, these chapters may help put such thinking to rest.



This book supports the work done by the Intergovernmental Panel on Climate Change through experimental evidence. There has been no speculation, through computer modeling, at predicting possible future scenarios. The book is a scientific presentation of the facts surrounding climate change and no attempt has been made to offer solutions, although the basic nature of the problem is obvious; the burning of oil, coal, and gas is causing a significant rise in atmospheric carbon dioxide, water vapor, nitrogen oxides, and particulate matter—all of which influence our climate. This book should have a strong influence on deciding our future energy options.

IUPAC supports the book, through its Chemistry and the Environment Division. IUPAC's adherence to the International System of Quantities is reflected in the book, with the use of SI units wherever possible.

Climate Change is a source book and guide and is written, not only for students and researchers and their professors, but for decision makers in government and in industry, journalists and editors, corporate leaders, and all interested people who wish for a balanced, scientific, and honest look at this

major problem facing us.

 www.iupac.org/web/ins/2007-050-2-600

Ecosystem Change and Human Well-Being—Research and Monitoring Priorities Based on the Findings of the Millennium Ecosystem Assessment

ICSU-UNESCO-UNU (2008), Paris, International Council for Science

The Millennium Ecosystem Assessment (MA) was called for by the United Nations Secretary-General Kofi Annan in 2000. Initiated in 2001, the objective of the MA was to assess the consequences of ecosystem change for human well-being and the scientific basis for action needed to enhance the conservation and

sustainable use of those systems and their contribution to human well-being. The MA has involved the work of more than 1360 experts worldwide. Their findings, contained in five technical volumes and six synthesis reports, provide a state-of-the-art scientific appraisal of the condition and trends in the world's ecosystems and the services they provide (such as clean water, food, forest products, flood control, and natural resources) and the options to restore, conserve, or enhance the sustainable use of ecosystems.

The bottom line of the MA findings was that human actions are depleting Earth's natural capital, putting such strain on the environment that the ability of the planet's ecosystems to sustain future generations can

no longer be taken for granted. At the same time, the assessment shows that with appropriate actions it is possible to reverse the degradation of many ecosystem services over the next 50 years, but the changes in policy and practice required are substantial and not currently underway.

The United Nations Environment Programme, as part of the Global Environment Facility procedures, initiated an independent valuation of the MA, which was completed in September 2006. In addition, the United Kingdom's Environmental Audit Committee of the House of Commons undertook an evaluation of the MA and published its results in 2007. Both evaluations reported that the MA's technical objective of assessing

the capacity of ecosystems to support human well-being proved both innovative and far-reaching. Thus, the MA emphasis on ecosystem services and their significance for human well-being is widely recognized as having made a major contribution to linking biodiversity conservation with poverty alleviation.

However, the evaluations also concluded that there was little evidence so far that the MA has had a significant direct impact on policy formulation and decision-making, especially in developing countries. In addition, in certain areas, the MA failed to provide the hoped for synthesis, since the scientific knowledge was lacking.

 www.icsu.org

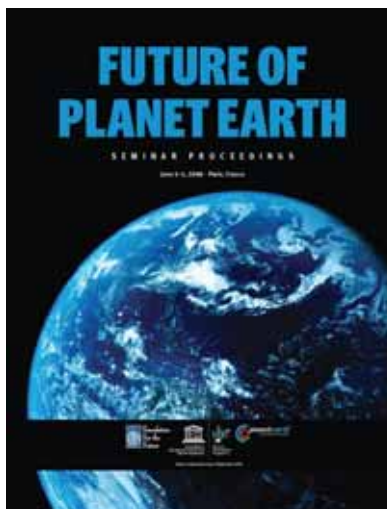
Future of Planet Earth

Foundation For the Future and UNESCO Division of Ecological and Earth Sciences, 2009
(ISBN 978-0-9794081-5-1)

On 3-5 June 2008, 19 eminent scholars representing 5 continents met in Paris, France, at the UNESCO Headquarters to consider the critical factors that might have the most impact on the long-term future of Planet Earth. The seminar, called "Future of Planet Earth," was jointly sponsored and conducted by Foundation For the Future and UNESCO's Division of Ecological and Earth Sciences. The seminar was among the activities organized in the framework of the United Nations "International

Year of Planet Earth," which focused on the importance of Earth sciences for society and human well-being. The intention behind the seminar was to provide a forum for dialogue amongst academics, scientists, conservationists, resource managers, and others dedicated to the wellbeing of the planet to explore the human-environment relationship with significant implications for the future of Planet Earth.

The seminar proceedings are now available on the FFF website under Recent Publications. The 358-page book contains transcripts of the seminar presentations and all dialogic sessions that followed.



 www.futurefoundation.org

POLYCHAR-16 World Forum on Advanced Materials

Michael Hess (ed.)
Macromolecular Symposia, Vol. 277, March 2009
doi:10.1002/masy.200990004

The POLYCHAR 16: World Forum on Advanced Materials, organized by the University of Lucknow, was held from 17 to 21 February 2008 in the capital of the state of Uttar Pradesh, India. The annual POLYCHAR

conferences have been sponsored by IUPAC for several years and are known for combining the broad field of materials sciences with a clear focus on polymeric materials (the name "POLYCHAR" is derived from the term "polymer characterization").

As in past years, POLYCHAR puts emphasis on the quality of research presented - in contrast to maximizing the number of participants. The areas covered include nanomaterials and smart materials; natural and biodegradable materials and recycling; materials syn-