

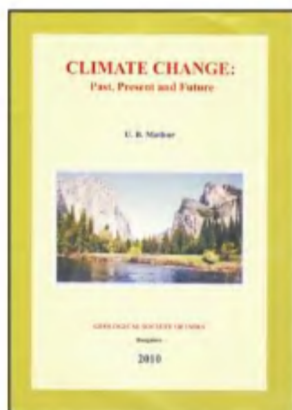
Moore, and Eric Drexler and their contributions. He explains the properties of nanoparticles and the experiments for synthesizing carbon nanotubes, zinc oxide nanowires, nanofilms and gold nanoparticles. Additional information is enclosed in boxes throughout the book. What I find most interesting about the book is the section on applications of

nanoscience that covers a wide area of research ranging from use in therapy and drug delivery to use in cosmetics, textiles and computers.

The author has not touched upon the subject of the ill-effects associated with the use of nanomaterials; reason I assume is it would require the readers to have an understanding of complex bio-

logical phenomena and may not be suitable for a handbook like this, meant for beginners. Nevertheless, he does conclude by saying that 'there is a crucial need to investigate the toxicological effects of nanomaterials'.

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Climate Change: Past, Present and Future. U. B. Mathur. Geological Society of India, No. 63, 12th Cross, Basappa Layout, Gavipuram, Bangalore 560 019. 2010. 48 pp. Price: Rs 200/US \$20.

Climate change has been happening ever since the earth formed; the mean global surface temperature, 125 to 65 million years ago, was probably higher by 6–8°C than it is today. That increase in greenhouse gases leads to warming of the atmosphere has been proved from the study of drilled cores from Antarctic and Arctic ice. Furthermore, little or no correlation has been found to exist between atmospheric carbon dioxide and temperature in studies of the deep geological past. However, a strong relation between the two has been found in recent times. A non-specialist reader would be left perplexed by these reports.

This book of under 50 pages is third in the 'Popularization of Science Series' produced by the Geological Society of India. The author gives a clear, realistic picture of the two contradictory findings on climate change – on one hand, there are reports that ring an alarm over anthropogenic global warming and on the other there are reports that deny such a connection.

The role of palaeoclimatic studies in (a) predicting abrupt climate changes and their severity in the past and (b) understanding present climate and predicting future climate has been emphasized in the book.

Climate Change: Past, Present and Future serves the purpose for which it has been written, as stated by Harsh Gupta (President, Geological Society of India) – 'to promote a better understanding of the processes of climate change and its consequences'. Gupta reasons that the book is 'a very timely publication' because of the worldwide concern 'over the ill-effects of global warming'. It is also timely because of the recent furore over errors in the Climate Panel (IPCC) 2007 report.

For a book of this size, there are too many spelling errors and typos. Even the 'Foreward' (sic) has not been spared. If a 50-page book can have several errors, can one not expect to see some in the 1000-plus-page IPCC report! The IPCC 2007 report famously overestimated the melting of Himalayan glaciers. And Mathur's book has a table (figure 43) with a puzzling entry for retreat of the Pindar glacier (1945–1966, 121 years, 2840 metres). Timely indeed! Many of the figures and tables are reproduced from the IPCC 2007 report; but it is to be noted that the table where this mistake occurs may not be from the IPCC report because it is not referenced. Page number 26 is printed as 25 and vice-versa. A former English language consultant, who has been acknowledged for 'meticulously editing at the final stages of the manuscript' seems to have missed grammatical errors.

How the eccentricity of earth's orbit, and the tilt and wobbling of its axis affect the climate over a long term have been described. The role of water vapour as the biggest contributor to global warming, and the El Niño and La Niña phenomena are also mentioned. Reading the book evoked nostalgia, a sense of reading a school geography book. This is reinforced by the revision questions and glossary at the end. Still, the book seems like a good attempt to explain the fundamentals of the complex science of climate change.

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