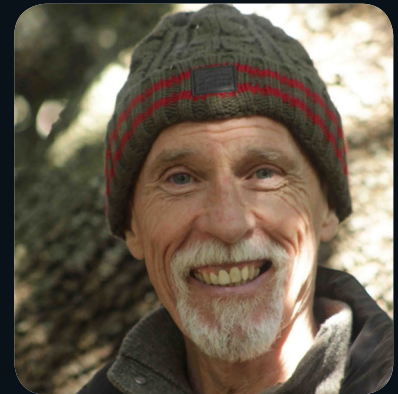


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3rd World Summit on

Climate Change and Global Warming

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CAUSES OF GLOBAL WARMING: GREENHOUSE GAS EMISSIONS AND NATURAL CYCLES, THE QUESTION OF PERCENTAGES

The causes of the observed global warming of 0.8 (c) remain poorly constrained by empirical data. For example, the IPCC assume that warming prior to 1950 (50% of the observed centennial rise) was not significantly influenced by carbon dioxide emissions but do not investigate fully the nature of natural variability and climate cycles. Of the remaining 0.4 (c), IPCC policy documents state that most of the post-1950 rise is caused by anthropogenic greenhouse gas emissions but a more precise figure has not been given. Here, I review evidence that peaking natural cycles between 1980 and 2016 account for at least 50% of the post-1950 rise. This means that carbon dioxide can account for at most 25% of the observed centennial warming, 75% of which is caused by natural (cyclic) variability. I discuss the implications of this figure for the climate sensitivity to CO₂ and its incorporation into predictive models. I argue for a reduction by at least a factor of 2 (in line with recommendations made to the IPCC by their own experts in 2004) and consideration that a factor of 3 is more appropriate, discussing also the implications for emission control policy. I then outline my collaboration with colleagues at the Environmental Studies Institute in Santa Cruz, California, and the results of our analytical studies of ice-core data and our work on predicting the future course of a peaking natural cycle; I then outline my other work at Ethos in the UK, on energy policy issues, in particular the environmental impact of global warming mitigation strategies.

Biography

Peter Taylor has a first degree in Natural Sciences from the Honours School of Zoology, University of Oxford; and a Diploma in Social Anthropology from the Institute of Social Anthropology, also at Oxford. He founded and directed the Oxford-based Political Ecology Research Group (1978-1992); the international consultancy Terramares (1992-2000) and Ethos-UK (2000~). He has advised UK government agencies on energy policy in relation to landscape, community and biodiversity; lectured internationally on ocean pollution issues and published several papers in leading journals, including recently a joint paper on climate and cyclicity in the Antarctic ice-core record. He has written three books on UK and European conservation issues as well as an analysis of climate and renewable energy issues. I work as an independent advisor, policy analyst and consultant – my consultancy is Ethos-uk, which is based in the UK and has no affiliations, and I am the Director. I am a fellow of the Wildland Research Institute, at the University of Leeds, UK; and board member of the Environmental Studies Institute (ESI) Santa Cruz, California, USA, which is only loosely affiliated to the University of California, Santa Cruz (Professor Davis, Emeritus professor of Biological Sciences, University of California, Santa Cruz).

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