

ACT Weller

CLIMATE CHANGE DENIAL Heads in the Sand

HAYDN WASHINGTON and JOHN COOK

WITH A FOREWORD BY PROFESSOR NAOMI ORESKES. AUTHOR OF MERCHANTS OF DOUBT 'Ignorance of science is one blockade to effective action on the human predicament. But corporate-financed disinformation campaigns, such as those claiming that climate disruption is a hoax, are equally important. This excellent book will help solve both those problems.'

Paul R. Ehrlich, co-author of Humanity on a Tightrope, Bing Professor, Stanford University

'This book is a must have for anyone trying to understand the climate change issue. Washington and Cook use impressive skill to peel back the lies and deceit associated with a well-oiled machine, used for selling tobacco and now selling manufactured doubt about climate change.'

Ove Hoegh-Guldberg, Director of Global Change Institute, University of Queensland

Climate Change Denial reveals the crossroads we face as a society: do we let denial and confusion continue to derail solutions, leaving us vulnerable to runaway climate change, or do we accept reality and forge a truly sustainable path for future generations?

James Hoggan, author of Climate Cover-Up and President of DeSmogBlog

'Climate change denial is the biggest single obstacle to achieving a sustainable future. This book provides all the evidence and arguments you need to counter the campaign of misinformation. Read it, study it and spread its message widely.'

Ian Lowe, Emeritus Professor, School of Science, Griffith University

'This is a major contribution to the growing body of well-reasoned analyses of climate change denial. It's a must read for anyone interested in understanding the tactics used by the "denial industry" to attack scientific evidence of anthropogenic climate change.'

Riley E. Dunlap, Regents Professor of Sociology, Oklahoma State University

'Washington and Cook shine a bright light on the charlatans, organizations, and funders behind the climate change denial industry. This clear and compelling book will make it easier for the general public to see through their tricks, and more likely that the world will move faster to take action on the most urgent environmental problem we have ever faced.'

Peter Gleick, MacArthur Fellow, President, Pacific Institute

'Washington and Cook offer the best available guide to recognizing and combating climate change denial. Their book is compact, lucidly written, and based on recent research in climate science, psychology and sociology. Anyone concerned with reality-based policy in any area can profit from reading this excellent work.'

Spencer Weart, author of The Discovery of Global Warming

Contents

List of figures Acknowledgements Foreword by Professor Naomi Oreskes		ix x xi			
			1	Denial and the Nature of Science	1
				What is denial?	1
	Science, uncertainty and the 'preponderance of evidence'	5			
2	Climate Science	17			
	Probability	19			
	'Forcing'	20			
	Natural and human-caused greenhouse effect	21			
	The carbon cycle	25			
	Modelling	27			
	Feedback	27			
	Runaway climate change	30			
	Is there a safe level of CO_2 ?	31			
	The spinning 'greenhouse gamble' roulette wheel	32			
	So what? Is there really a problem?	33			
	Scientific and ethical disconnects	38			
3	The Five Types of Climate Change Denial Argument	43			
	Conspiracy theories	43			
	Fake experts	45			
	Impossible expectations	47			
	Misrepresentations and logical fallacies	50			
	Cherry-picking	51			
	Conclusion	63			

viii CLIMATE CHANGE DENIAL

4	The History of Denial	71
	The long history of denial	71
	Heaven and Earth	80
5	Do We Let Denial Prosper?	89
	Fear of change	89
	Failure in values	90
	Fixation on economics and society	91
	Ignorance of ecology and exponential growth	92
	Gambling on the future	92
	The media	93
	Despair, apathy and confusion	95
	Denial within our governments	95
	Psychological types of denial	97
6	Rolling Back Denial: The Big Picture	107
	Because we let it	107
	What stops us accepting reality?	112
	Population	115
	The 'tragedy of the commons' continues	117
	How do you go about solving climate change?	118
7	Rolling Back Denial: The Technological Solutions	137
	Technologies – appropriate and inappropriate	137
	Renewable energy	139
	Is nuclear power the way out?	143
	Is carbon capture and storage the solution?	146
8	Summary and Conclusion	151
	Summary	151
	Conclusion	154
Appendix: Greenscam and denial groups		159
Inc	Index	

'Ignorance of science is one blockade to effective action on the human predicament. But corporate-financed disinformation campaigns, such as those claiming that climate disruption is a hoax, are equally important. This excellent book will help solve both those problems.'

Paul R. Ehrlich. co-author of Humanity on a Tightrope, Bing Professor, Stanford University

'This book is a must have for anyone trying to understand the climate change issue. Washington and Cook use impressive skill to peel back the lies and deceit associated with a well-oiled machine, used for selling tobacco and now selling manufactured doubt about climate change.'

Ove Hoegh-Guldberg, Director of Global Change Institute, University of Queensland

Climate Change Denial reveals the crossroads we face as a society: do we let denial and confusion continue to derail solutions, leaving us vulne rable to runaway climate change, or do we accept reality and forge a truly sustainable path for future generations?' **James Hoggan**, author of *Climate Cover-Up* and President of DeSmogBlog

Humans have always used denial. When we are afraid or guilty we tend to deny it. Yet denial is a delusion. When it impacts on our health or that of society or the world, then it becomes a pathology. Climate change denial is such a case. Paradoxically, as the climate science has become more certain, denial about the issue has increased.

There is a denial industry, funded by fossil fuel companies, that seeks to confuse the public. There is denial within governments, who pretend they are taking action. There is also denial within most of us. We let denial prosper and we resist the science. This book explains the social science behind denial. It also examines the main climate change denial arguments.

Climate change can be solved – but only when we cease to deny that it exists. This book shows how we can break through denial, accept reality, and thus solve the climate crisis. It will engage scientists, university students, climate change activists as well as the general public seeking to roll back denial and act.

Dr Haydn Washington is an environmental scientist of 35 years experience. His PhD 'The Wilderness Knot' was in social ecology, examining the tangled meanings (and denial) around 'wilderness'. He has been researching climate change since his 1991 book *Ecosolutions*. John Cook created www.skepticalscience.com, a website that examines the arguments of global warming 'skepticism'. His background is in physics at the University of Queensland. His focus is on making climate science accessible to the general public.



publishing for a sustainable future

www.earthscan.co.uk

Climate Change

Ostrich drawing by Rodney Falconer



Earthscan strives to minimize its impact on the environment