

## EARTH DETOX

Every person on our Planet is affected by a worldwide deluge of man-made chemicals and pollutants – many of which have never been tested for safety. Our chemical emissions are *many times larger* than our total greenhouse gas emissions. They are in our food, our water, the air we breathe, our homes and workplaces, the things we use each day. This universal poisoning affects our minds, our bodies, our genes, our grandkids, and all life on Earth. Julian Cribb describes the full scale of the chemical catastrophe we have unleashed. He also maps an empowering and hopeful way forward, to rid our Planet of these toxins and return Earth to the clean, healthy condition which our forebears enjoyed, and our grandchildren should too.

Julian Cribb FRSA FTSE is an author and science communicator. His career includes appointments as scientific editor for *The Australian* newspaper, director of national awareness for the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO), editor of several newspapers, member of numerous scientific boards and advisory panels, and president of national professional bodies for agricultural journalism and science communication. His published works include over 9000 articles, 3000 science media releases and ten books. He has received thirty-two awards for journalism. His previous books include *Food or War* (2019), *Surviving the 21st Century* (2017) and *The Coming Famine* (2010). As a science writer and a grandparent, Julian is deeply concerned about the existential emergency facing humanity, the mounting scientific evidence for it, and the deficit of clear thinking about how to overcome it. His books seek to map pathways out of our predicament.

*'In Earth Detox, Cribb shows that humanity's chemical emissions are a threat to civilization on the scale of climate disruption – slaying more people every year now than any war in human history. On a bedrock of hard scientific evidence, he shows the way for urgent universal action to stem this colossal menace to our future. Another must-read by an outstanding science communicator.'*

Paul R. Ehrlich, author of *The Population Bomb* and *Jaws: The Story of a Hidden Epidemic*

*'Future generations will see this book as the 21st century equivalent of Rachel Carson's 1960s classic, Silent Spring. It documents in frightening detail how manufactured chemicals are poisoning us and the Earth's natural systems. Every day, about a kilogram of chemicals are produced for you and for every other human. About 25,000 people will die today from the effects of these chemicals. Read it and be empowered to help turn back the chemical tsunami which is drowning us all.'*

Ian Lowe, Griffith University

*'Julian Cribb's unrivalled passion for a clean environment is informed by his understanding that chemical contamination of the Earth poses no less than an existential risk to humanity. This outstanding book examines in beautiful language the scale and causes of the problem, and – crucially – what we can do to solve it. Cribb has warned us – we must now rise to the challenge.'*

Ravi Naidu, Newcastle University and CEO of CRC CARE

*'... a meticulously researched account of the quantity, variety, and number of chemicals released into the environment by human activities and the impact these chemicals are having on the health, well-being and, ultimately, the survival of humanity.'*

Alfred Poulos, Australian National University

*'... Earth Detox is impeccably researched, starkly engaging, beautifully written, and deeply unnerving. Telling us we are existentially awash in deadly dangerous, man-made chemical toxins. A must read*

*for those who want a future in which humans can survive. Julian Cribb is one of the world's most important voices on the existential threats of our time.'*

Geoffrey Holland, author of *The Hydrogen Age*

*'Julian Cribb refuses to give up on our species. In this his latest book, Earth Detox, he succinctly describes how we find ourselves and our environments contaminated by chemicals while shining a light on pathways to a cleaner, healthier world.'*

Robyn Alders, Australian National University

*'... harrowing, tenacious and precise analysis of humanity's poisoning of the planet ... From traces of arsenic on the high slopes of Mt. Everest, to flame-retardant chemicals in deepsea squid and bears in the Arctic, pesticides and nanopolluters, to neurotoxins, endocrine disrupters and chemical weapons, Cribb documents the unbearable orgy of toxins we are willy-nilly unleashing ... This is not a book about hope versus despair. It is far more urgent and pragmatic than that. This is about your next breath.'*

Michael Charles Tobias, author, filmmaker,  
President of Dancing Star Foundation

*'... impeccably referenced and scary to say the least. But it needs to be widely read and understood if we seriously want our children to inherit a liveable world.'*

Bob Douglas, Commission for the Human Future

*'Science policy expert Julian Cribb's latest, deeply-documented, systemic overview of humanity's self-inflicted global crises is essential reading. Cribb provides evidence that our collective expanding cognition and actions offer clear pathways for redirecting societies toward survivable common futures on our endangered planet.'*

Hazel Henderson, global futurist, author of  
*Mapping the Global Transition to the Solar Age*,  
CEO of Ethical Markets Media, LLC

*'Earth Detox is a compelling, albeit unsettling book about the ways billions of tons of toxic chemicals are killing the planet – including people ... Julian Cribb takes a no-holds-barred look at how dependence upon manufactured chemicals threatens the world. Every living being is touched in one way or another by toxic chemicals. They're in the air, in the oceans, in the soil, in the foods we eat, on our skin. In fact, almost every facet of our lives is touched by pollutants, whether we know it or not. Earth Detox lays out shocking facts about the many ways we've allowed pollutants to poison the planet. Fortunately, Julian also lays out many actions we can take, and policies to support, to change course and save lives. I encourage readers to pick up Earth Detox, learn the facts about toxic pollutants, and begin sharing some of the solutions with others so we can move toward a safe and healthy world for all beings.'*

Suzanne York, Director of Transition Earth

*'Confronting, challenging and yet empowering, Earth Detox offers a roadmap to dealing with the issues we all face together as a global community ... Julian Cribb reminds us why he is one of the world's leading science writers ... If knowledge is power then with this book we are empowered to act, effect change and truly make a difference ... At this time of global reflection, the book is guiding light to a better and more sustainable future.'*

Ron Ehrlich, President of Australasian College of  
Nutritional and Environmental Medicine

*'We have treated our planet as an infinitely open system into which we carelessly pour our waste and other toxins. It isn't. Julian Cribb's book is full of well-referenced, irrefutable facts ... repulsive in impact, yet captivating, surgically concise and articulate. I commend this book to anyone who cares about our planet and our species.'*

John M Schmidt, Synthesist and Foresight Practitioner

# Earth Detox

How and Why We Must Clean Up Our Planet

JULIAN CRIBB



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## DEDICATION

*For Vivienne, Flynn, Adeline and Teddy in the hope they may inherit a brave new world as free of poisons as the one our ancestors enjoyed.*

## CONTENTS

Preface	<i>page xi</i>
1 CHEMICAL AVALANCHE	1
2 POISONING A PLANET	22
3 ARE YOU A CONTAMINATED SITE?	51
4 DIABOLIC COCKTAIL	90
5 UNSEEN RISKS	108
6 SICK SOCIETY	131
7 GETTING AWAY WITH MURDER	176
8 CLEAN UP SOCIETY	196
9 CLEAN UP THE EARTH	224
10 PREVENTING CATASTROPHE	246
POSTSCRIPT: A CAUTIONARY TALE FROM DEEP TIME	253
Notes	256
Index	300



## PREFACE

*Earth Detox* describes the largest human impact on Planet Earth of all – the hundreds of billions of tonnes of chemicals that we emit and circulate through our normal daily and industrial activities, their impact on human health and on life in general.

It deals with a catastrophic risk that faces all humanity and, potentially, the whole of life on Earth. A curse that is entirely of our making – and which we alone can dispel. Yet one that is not widely acknowledged, in terms of its scale, speed or impact.

Most people are aware that certain chemicals are not good for us and there are too many of these things in our food and environment. Our society recounts numerous ‘small picture’ stories about chemical accidents, polluted sites, cancer clusters and toxins in food, city air or consumer products.

But these stories are mere scattered pixels in a very much larger picture, one that now directly confronts every living being on our Planet. *Earth Detox* describes the big picture, bringing together peer-reviewed science and evidence from trustworthy international sources. It depicts a menace to our future greater even than climate change, one that will affect every one of us, for all of our lives and for centuries to come. Global poisoning is one of ten catastrophic risks that combine to imperil human survival in the twenty-first century – and like the others, it must be solved and in ways that make none of the other threats worse.

The subject of poison makes for chilling reading, and for that reason the book is short and informative, with plenty of end-notes for those who wish to verify its claims or delve further into its sources. However, no real problem was ever solved or challenge overcome without first grasping its sheer scale, understanding its nature and causes, and developing an action plan. *Earth Detox* lays out both the facts and a credible pathway for achieving this.

Although the topic is grim, this is nonetheless a hopeful book. Whatever we have done to our world, we can undo, and in ways that will lead to better health, greater prosperity and wider opportunities for all. If toxic chemicals are a product of human ingenuity, then ingenuity can overcome their worst effects, leading in turn to innovation, growth, employment and opportunity in the entirely new field of detoxing the Earth. Like renewable energy, the circular economy and renewable food, Planetary clean-up is a cornerstone of our future economic, social and personal wellbeing.

As with climate, this will all depend on an act of willing and enlightened co-operation by people across our world, a voluntary act at species level – maybe the one that ultimately defines us. As with climate, we are all part of the solution.

Read on and be not daunted. Rather, be inspired to help build a better, cleaner, safer world.