THERE IS NO PLANET B

Updated Edition

Feeding the world, climate change, biodiversity, antibiotics, plastics – the list of concerns seems endless. Given the global nature of the challenges we face, what can any of us DO?

Mike Berners-Lee has crunched the numbers and plotted a course of action that is practical and enjoyable. Readers will find the big-picture perspective on the environmental and economic challenges of the day laid out in one place, and traced through to the underlying roots – questions of how we live and think on Planet A.

This updated edition includes an expanded 'What can I do?' section; a new chapter on protest, including thoughts on Extinction Rebellion and school children marches; more on offsetting, carbon net zero, and investing, in response to developments in the business world; and more on pandemics, COVID-19 and wildfires.

Mike Berners-Lee thinks, writes, researches and consults on sustainability and responses to the challenges of the twenty-first century. He is the founder of Small World Consulting (SWC), an associate company of Lancaster University, which works with organisations from small businesses to the biggest tech giants. SWC is a leader in the field of carbon metrics, targets and actions. About his first book – *How Bad Are Bananas? The Carbon Footprint of Everything* – Bill Bryson wrote 'I can't remember the last time I read a book that was more fascinating, useful and enjoyable all at the same time.' His second book (co-written with Duncan Clark) – *The Burning Question: We Can't Burn Half the World's Oil, Coal, and Gas. So How Do We Quit?* – explores the big picture of climate change and the underlying global dynamics, asking what mix of politics, economics, psychology and technology are really required to deal with

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the problem. Al Gore described it as 'Fascinating, important and highly recommended.' Mike is a professor in the Institute for Social Futures at Lancaster University, where he develops practical tools for thinking about the future, and researches the global food system and carbon metrics.

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> "... a sort of Alexa to tell you how to live in a more planetfriendly fashion ... Amazingly, it manages to make the complexities of planet-scale economic and environmental interconnectivity fun: a platter of potential doom, served with a smiley face and sparkler ... There Is No Planet B is a rallying cry for a generation worried that they will inherit a world shorn of nature's wonders and of the freedoms and opportunities we take for granted. Buying the book and adopting its key guidelines and mindset will go a long way to ensuring the planet we hand on may just be liveable.'

> > Adrian Barnett, New Scientist

'... a "handbook" for how humanity can thrive in dark times ... how can we keep living happily on this planet?'

Leslie Hook, Financial Times

'A comforting handbook for anyone frozen into inaction.' Sunday Times

'Who should read There is No Planet B? *Everyone*. Mike Berners-Lee has written a far-ranging and truth-telling handbook that is as readable as it is instructive.'

> Elizabeth Kolbert, The New Yorker and author of The Sixth Extinction: An Unnatural History

"... a lively and cogent assessment of what is happening to the Earth's biosphere and resources ... tells us what we can do if we want to make a difference, and tread more softly on the planet. All citizens should be grateful for this information-packed and wide-ranging primer."

Martin Rees, Astronomer Royal

'This is a massively entertaining compendium of bite-sized facts . . . It's also massively important, given the current state of the planet.' Bill McKibben

> "... an unexpected aesthetic pleasure as well as a guide to action. No matter how much you already know, this book will help orient you to where we are now on this, the only planet we have ... It would be best if everyone read it."

> > Kim Stanley Robinson, author of the Mars trilogy and New York 2140

"... a wonderfully abundant buffet-table of knowledge about sustainability and you can enjoy it all at one sitting or benefit from visiting for bite-size chunks. Either way, you'll come away wiser, healthier and also entertained ... [Mike] shares his insights with warmth and wit, and his book could not be more timely."

David Shukman, BBC Science Editor

'I absolutely love this book. Evidence-based, robust, and full of practical guidance. In an increasingly complex and confusing world, this book stands out as a beacon of common sense, clarity and v crucially – hope.'

Caroline Lucas, Member of Parliament, United Kingdom

There Is No Planet B

A Handbook for the Make or Break Years

Updated Edition

MIKE BERNERS-LEE



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How is this book laid out?

Almost the whole book is in the form of questions. This means you can read it in different ways: you can dip in at random, or search for topics by scanning the contents or index, or read it from end to end in what I hope is a logical flow.

The first few sections deal with obvious physical, technical and scientific challenges, moving towards deeper underlying issues, and then into the terrain of values, truth and finally a discussion of ways we must learn to think in order to cope with our new era.

Towards the back I have included an Alphabetical Quick Tour. This is supposed to be both fun and useful. It also gives me a chance to include a few things that don't fit properly anywhere else but deserve a mention. Presenting things alphabetically creates a totally new order with a random logic. I hope this helps to reinforce the idea that although most of the book is told in sequence, it all interrelates so much that we need to hold it all in our heads at the same time.

The endnotes are intended to be read if you want a bit more detail. They are not just references. Often there is good stuff in there that I have kept out of the main text simply to help the flow.

Finally, a note on language. I've kept it as simple and jargon-free as possible, because I hope this book will be read, enjoyed and used by a very wide audience.

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To the memory of mum

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Lancaster University has been a fabulous boiling pot of interdisciplinary ideas. Thanks especially to everyone in the Institute for Social Futures and all those who chipped in their thoughts at the Global Futures events, where nearly all the themes in this book have had an airing.

Thanks to Matt Lloyd and all at CUP for confidence in the concept, patience, and of course great edits.

For this revised edition, I am also grateful to the many hundreds of people who emailed me with comments and feedback on the original edition.

All the mistakes are mine.

Three sheds let me escape from the noise and haste, and were critical for perspective. One is at the end of my garden. One is an off-grid metal box on Colonsay, my favourite Scottish island. The third is the unforgettable sunrise on the Cumbrian West Coast, to which Chris and Elaine Lane very kindly lent me the key.

Most of all, as always, thanks to Liz, Bill and Rosie for putting up with the whole process and dad's grumpy pre-occupation.

WHAT'S NEW IN THIS UPDATED EDITION?

I'm writing this in lockdown, as coronavirus disease (COVID-19) holds humanity in its grip. Everyone is trying to work out what it will mean for the world after the immediate crisis has passed. Many people are asking whether this could be the moment we unlock ourselves from an economic and social set-up that is now so clearly unfit for the modern era and embark, at last, on the transition to a more environmentally friendly world that our (and other) species so urgently needs. Of course, at present no one knows. But clearly, change of every kind, for better and worse, looks so much more possible now that we have already been forced to turn our lives upside down.

Even without the pandemic, the two years since publication of the first edition of *There Is No Planet B* have seen a lot of change. In 2019–20, the wildfires of Australia single-handedly added more than 1% to global greenhouse gas emissions and turned the skies orange in New Zealand, 2,000 miles away. Methane has been exploding (literally) out of the melting Russian permafrost, leaving craters 50 metres across, and we have news that the Amazon may be drying out so fast that it could soon turn from an important carbon sink into a brand new source of emissions.

And yet at the same time we have also seen hugely encouraging signs that the world – or at least some parts of it – is at long last waking up to our environmental crisis. There is such a long way to go, but it is enough to give me more hope than I've had in years.

When the first copies of *There Is No Planet B* reached the bookshops, the Intergovernmental Panel on Climate Change (IPCC) had only just released its long-awaited report, making

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WHAT'S NEW IN THIS UPDATED EDITION?

crystal clear the need to keep global temperature change to within 1.5 °C.¹ Greta Thunberg was only just emerging as a household name, and the school kids had not yet taken to the streets en masse. Extinction Rebellion was still planning the landmark London protests of April 2019. In the UK, politicians still thought they could look like they were leading the world with a hopelessly inadequate target to cut emissions by just 80% by 2050. It had not yet become fashionable for both local and national governments to declare a climate emergency. The BBC was only just starting to talk plainly about the need to eat less meat and dairy. It had not yet released its landmark documentaries Climate Change - The Facts (which drew a line under its hitherto abysmal coverage of the climate emergency) and Extinction: The Facts, which brought our biodiversity crisis into shockingly sharp focus. (Please try to watch these documentaries if you haven't already.)

Plans to expand Heathrow Airport have been judged illegal by the Court of Appeal on climate grounds. That sets an incredibly helpful precedent, opening the floodgates for climate-scrutiny of all the UK's infrastructure plans, including crazy new coal mines and road expansion schemes. It is getting harder for politicians to talk about the climate in one moment and then forget about it the next. These straws in the wind are enough to give me real hope.

How did these first steps of change become possible? What caused what? The answer has to be that, just like all system change, it all came together at once. The *conditions became right* for the first inch of shift to take place on the big transition; the journey that we so urgently need. And the first inch might have been the hardest one.

It is a race between tipping points; will the environmental crisis tip out of control first, or will humanity wake up in time? While the science is getting even more scary, for the first time, it feels like society as a whole has actually managed to stir a little in its slumber. Our collective head has just started to try

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wiggling out of the sand. If we all pull hard, the big system change that we so urgently need feels more likely than it did two years ago. And we might even be in time.

COVID-19 struck at a moment when the world was tottering on the brink of enormous change. By delivering an immediate threat to every human life, the pandemic has surely forced us to reflect on what truly matters in life. Lockdown gave humanity a chance to stand back, take stock and rethink. This book tries to help with that by looking at how the old system was working, what needed to change, why and how.

So, what's specifically new in this edition? I haven't found any need to update the basic premise or through-line of the book, or even any of the numerical analysis, but the launch of this new version gives me a chance to fill in some gaps and cover some critical updates.

To start with, of course, the whole book has been picked through, nuances and updates squeezed in all over the place and some of the diagrams improved. In quite a few places I have replaced the phrase 'climate change', with a phrase that better describes what we now face: 'climate emergency'. In the light of COVID-19 I have written more about disease. I have considered around 700 feedback emails, making useful tweaks and insertions throughout. So this version of *There Is No Planet B* is even more of a collaborative work than the first version.

In terms of brand new material, I have written more about some of the important levers of change that have been emerging. There is now a short chapter on protest, including Extinction Rebellion and the striking school kids. I've also added more for the business community in response to the surge of new questions that I am getting in my work: Does offsetting work? What does 'net zero' mean? How should we invest? How should we manage our financial asset portfolios to get the trillions of dollars pushing for a better world? Finally, in recognition of an even stronger calling for all of us to be part of the change right now, I have elaborated on the 'What can I do?' section.

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WHAT'S NEW IN THIS UPDATED EDITION?

We are all on a journey of change now and I hope that this new edition reflects that more than ever.

Happy reading!

Mike Berners-Lee