

# INTRODUCTION

This book is about the fact that humanity is accelerating into a deadly Polycrisis.

What do I mean by ‘Polycrisis’? Alongside and inextricably linked to our climate crisis, we’re facing an equally serious biodiversity crisis, a food security crisis for a rising population, a crisis of escalating, permanent pollution – and far more besides. The scientific evidence across all of these issues has been clear for decades, and, wonderfully, our problems turn out to be more or less solvable from a technical perspective. Yet, in spite of this, our response continues to be hopelessly inadequate. In fact, every single year, we degrade our environment by an even larger amount than we did the year before.

An increasing majority of us sense – at least on some level – that we are heading for a very dark place if we can’t get to grips with all this. But despite our failure so far, and maybe even despite the truly awful re-election of Donald Trump, we may still change course, if we are fast, lucky and willing to put in the work. To do so, however, we need to change our approach – and in several ways.

We need to *stand back* much further from the problem to get the best possible perspective and insights into the big picture. And at the same time, we need to get much *deeper under the skin* of the problems to better understand their resilience and the reasons behind our persistent failure to date. We also need to *join up our thinking* much better, since every element of this Polycrisis of our own making is inescapably connected to everything else. We need to

learn from our failures so far. And to do that, we need to be *truthful* about the difficulties we face.

Truth is essential to any progress we seek to make. It is the foundation on which all other progress rests. We have, somehow, to understand and overcome the lurches we have seen in the wrong direction. We will dive into this in more depth as the book progresses, but in short, we need to ensure the honesty of our data and the honesty of those in power, and to be honest with ourselves and each other about the situation we are in. We should neither overstate nor understate the challenges in front of us, nor the extent of our progress in dealing with them.

On this last point, I don't believe in being over-optimistic, but nor do I believe in being defeatist. Climate discourse is often polarised, from doom-mongering at one end to over-optimism at the other end, based on an (often technocentric) avoidance of the nature of the problem. Neither of these narratives will do. The former leaves us paralysed, and the latter leaves us complacent. I believe in being *realistic*, as this is the best way of reducing an issue from the nightmarish to the manageably factual: the best way of finding authentic *hope* and – in turn – motivating *meaningful* action.

*Not everything that is faced can be changed, but nothing can be changed until it is faced.*

James Baldwin, 1962

It may now be odds against us getting through the next few decades in good shape. But neither are we definitely doomed, because if we can get right to the poisoned heart of the problem we might, for the first time, be in a position to start getting somewhere. That is what this book is about. And, whoever you are, this book is also a guide to the targeted, high-leverage actions that *you* can take *right now* to be part of the health restoration that global society so urgently needs.

So, what actions are needed? And what's stopping us? Fundamentally, it's not down to a lack of scientific or technological ability. Yes, gaps in our knowledge still make things difficult in a few areas, but, as we'll see later, they aren't the bottleneck.

To answer these critical questions, we will have to peel back the outer layer of the problem and touch upon themes of politics, media, business, economics, investment, education, law and social justice, to see in very broad terms what we might need from them to be able to solve the technologically solvable challenges. We are going to see how acute and how provable the need for change is in these areas. Just as with the technologies for a sustainable world, the good news is that all the changes we could benefit from in the fabric of our society are physically possible – but again, that raises a deeper question:

***What societal changes will it take for us to make the changes we need, in the ways that we run our society, to get on top of the Polycrisis?***

We are going to end up looking at questions of honesty, truth, empathy, kindness, new ways of thinking, problem-solving and carefulness. We will explore why these things matter so much and how we can get them.

Since the challenge we face is urgent and practical, the end point, and ultimate purpose of this book, is to give the best and most grounded answer to the question:

***What can each of us do right now to help?***

While I've talked to as many wise brains as I can, I still don't have perfect answers. In fact, some of the questions we'll look at will only be answered with ideas, explorations and more questions.

But I still hope the suggestions will be empowering. You probably already know that cutting your carbon footprint

is a good idea, but not enough to bring about the global systemic change that we so urgently need. You know we need better politicians, but your one vote isn't enough to deliver them. You may be feeling powerless in the face of a global problem in which you are just one small actor compared with mighty nations and companies. If that is the case, I hope this book, as a call to action, will leave you feeling that although you are just one person among the eight billion people involved in this struggle, your actions can have much more meaningful leverage than just flying less, reducing your meat intake and recycling your plastic yoghurt pots – even though it is still good to do those things!

## How Did I Get Here?

Most people who know a little about my work think of me as a science-y, carbon number-y kind of guy. When I go on the radio that's what most people want to talk to me about most of the time, and all my books have been packed full of calculations and statistics.

Actually, I only got into that stuff by accident and somewhat to my own surprise. It came about as a result of asking: 'What needs doing?' and 'Where are the gaps?' ... and those same questions have prompted me to write this book.

My 20 years of working on climate started by addressing the most obvious challenges as they presented themselves. The journey since then has been one of digging down through the layers of the problem, to get to the core of the issue: to the heart of what is stopping us from taking action, and what it might take to finally begin sorting it out.

I started my work on climate change – as we called it then, rather than the more informative and realistic

phrases ‘climate emergency’ or ‘climate breakdown’ or ‘climate crisis’ – by helping companies work out what they could do to drive down their own greenhouse gas emissions. I thought I would just do the strategic stuff and leave the carbon numbers to the people who specialised in that. But to my surprise, I quickly found that companies simply couldn’t get hold of information about their climate impacts. So that is why I immersed myself in carbon numbers, embarking on a massive amount of work and research into supply-chain carbon accounting, in order to remove that obvious and basic barrier to climate action: you can only start to take action if you know what the problem is in the first place.

In 2010, I wrote *How Bad Are Bananas? The Carbon Footprint of Everything* (a fun but also deadly serious book about carbon footprints) to help bring about a more widespread and instinctive understanding of where the carbon was in our lives and in the world as a whole.<sup>1</sup> I also tried in that book to nod to issues under the surface, about how we live and think. It all felt useful up to a point, but it was inescapably clear that while a ‘good enough’ understanding of carbon numbers for individuals, businesses and governments might be necessary, it wasn’t anywhere near sufficient in itself to cut our ever-rising emissions.

I’d begun thinking more about the system dynamics of climate, energy and gross domestic product (GDP) growth. A key moment came when Andy Jarvis at Lancaster University mentioned to me over coffee that he’d noticed the global carbon curve didn’t just rise in a vaguely banana-shaped way but had actually been mathematically exponential for at least 160 years. It had a fixed growth rate of 1.8 per cent per year, give or take a bit of noise. My jaw dropped, just as his had done when he made the observation. Why wasn’t everyone screaming about this? A mathematically exponential curve was incredibly unlikely to occur by accident. It

strongly suggested something powerful was going on at the global system level that was impervious to anything humans had done so far to try to change its trajectory. It suggested that there was a fundamental process by which growth begets growth, energy begets more energy, and emissions beget even more emissions. It told us that somehow the system is correcting for any little piecemeal aberrations that we humans are throwing at it. It told us that humans had so far had zero – yes, zero – agency over the carbon curve. It told us something more was needed if we ever wanted to get anywhere at all to drive down emissions and change the trajectory of the curve, specifically:

***We have to interrupt the dynamics of climate breakdown at the global system level.***

Andy wrote a paper for a top scientific journal, *Science*, and I got to work with journalist Duncan Clark in 2012 to write *The Burning Question: We Can't Burn Half the World's Oil, Coal, and Gas. So How Do We Quit?*, a book about the big picture of climate change. We wrote about the exponential curve and explored the system dynamics from a few different angles. One of the dazzlingly clear conclusions was that we had to leave fossil fuels in the ground. Duh! Honestly, how could such a ridiculously obvious conclusion have been so little talked about? But at the time it really hadn't been. While we had been writing, Bill McKibben published 'Global warming's terrifying new math' in *Rolling Stone* magazine and followed it up with his *Do the Math* lecture tour. Bill's article and his tour made the same critically important point go viral for the first time. In the book, we went on to point out that you wouldn't succeed in leaving all fossil fuels in the ground just by trying to persuade individuals, businesses or even a few countries to cut their carbon. In order to do so, and to repeat:

**You have to interrupt the carbon curve at the global system level.**

Over the next few years – and I like to think slightly aided by our efforts – the message about leaving the fuel in the ground became more widely understood<sup>2</sup> and is today grasped by all thoughtful climate commentators, even if it is somewhat skirted around or only vaguely mumbled by too many politicians, policy-makers, and even still by negotiators at the COP climate summits.<sup>3</sup>

But the carbon curve has carried on climbing, as it is still doing today, almost undented to the naked eye.<sup>4</sup> So to answer the question of what it might take to cut the carbon, I knew I'd have to stand even further back from the problem to see more deeply into it. What blend of political, economic and social change would it take for the world to start leaving that fuel in the ground? The question of how to get rapid enough change was becoming less technical and far more social. In fact, it was becoming increasingly clear that the technology – challenging though it is – was not the roadblock.

I also came to see that it wasn't useful to deal with the climate emergency in isolation. If we want to make any progress, we have to treat it as just one symptom of something much bigger that is going on for humanity. Climate breakdown is just one symptom of the difficulty we have in dealing with our own rising power as a species.

So, in 2018, I wrote *There Is No Planet B: A Handbook for the Make or Break Years*, which was an attempt to look at every aspect of the challenge in one short book. And in a way, the punchline of *There Is No Planet B* was a discussion of values and ways of thinking that humans now needed to adopt – like it or not – if we were going to thrive on our one and only planet, moving forward. I homed in on simple principles such as joined-up/big-picture thinking, future

thinking, reflection, commitment to truth, and respect for all people and species.

Since then, five of those make-or-break years have passed, and despite a small blip for the COVID-19 pandemic, the carbon curve has carried on rising. The scientific community has issued ever-starker warnings that the worst symptoms of environmental breakdown are starting to emerge. Meanwhile, I've come to see that dishonesty, more than poor judgement, has lain behind most of the worst climate decisions. I've seen the re-election of Donald Trump make the dreadful dishonesties in UK politics and media look trivial. And I've witnessed the rising variety and sophistication of corporate greenwash. Continually, I have had to ask very carefully whether each project my own company (Small World Consulting) takes on is actually just part of the smokescreen. I've come up against increasingly cynical, sophisticated and highly effective misinformation from interest groups who fear sustainability will hurt their profits. I've contemplated the widening gap between the global cooperation that is required and current international relations, with two big wars breaking out in 2022 and 2023, and in 2024 the world's biggest military power relinquishing any meaningful sense of democracy.

I'm writing this book because – despite our pitiful response to date – if we make the right changes now, we might still pull through the dire situation that we are racing towards. With a following wind, there is even still a slim chance that our children could live better than we have done. But that won't happen through 'business as usual', 'media as usual' or 'politics as usual'. Nor will it happen by all of us waiting for *someone else* to do something. Nor will things change by using gimmicky sticking plasters, or the naive hope that technology plus the usual market forces will somehow avoid us having to tackle the root causes.



I don't know what the odds are of us avoiding billions of deaths and untold suffering. They are a lot less than 100 per cent because we have left it so late to be still accelerating into the crisis, but they are better than zero. That's all we need to know.

## How Is the Book Laid Out?

As with most of my books, there will be lots of headings, many of them written as questions.

The first two chapters are going to be about the challenge ahead and the need to stand back to see the dynamics of the global economy and our current trajectory towards trauma from some relatively unusual angles.

The following three chapters will be a tour of the Polycrisis, layer by layer.

The outer layer will deal with the physical elements of the problem and its solutions.

The middle layer will look briefly at socio-economic elements of the Polycrisis, at the changes to our politics, media, business, education, legal system and so on that might be required for the technically solvable solutions to the outer layer to be put in place.

The core section will look in broad terms at the ways we need to think, the values we need to have and the qualities of decision-making that we require in the Anthropocene: the era in which humans are the most powerful influence on our now-fragile ecosystem. This will be followed by a guide to critical elements of decision-making and some tools to bring them about.

Chapter 6 looks at truth, which will have emerged as the single most critical lever for change.

The next three chapters explore very practically what we can all do right now to help bring it into the critical domains of politics, media and business: how we can

evaluate all three, and what we can all do to raise the standard. Most importantly, this will be a push for a climate in which *truth* matters more than it ever has.

The conclusion sums up where we will have got to and what it means for us, standing back once more to see what we've found. There is a checklist of the high-leverage things any of us might think of doing to be part of the change.

There are also some chunky appendices which I think contain important material that didn't fit into the main flow of the book. They include some detailed thoughts on how the United Kingdom, in particular, can improve its political system through structural reforms, and a taxonomy of deceit, in order to flesh out all its many forms beyond simple lies.

Finally, the endnotes contain references to much of the foundational data that underpins everything. It is sometimes hard to demonstrate that an argument is robust within the space of a short book, but the references link to a wealth of stunning material and are there to be followed up any time you are wondering whether you can take my word for it, or simply if you want to know more. In the endnotes I have also sometimes fleshed out detail that I think is very interesting but doesn't quite fit into the main flow.

Everything I have written in this book about individuals, businesses and media outlets is backed by what I believe to be strong evidence. Sometimes I have been critical, and on these occasions I have often emphasised in the text, especially for the reassurance of my publisher's legal team, that I am stating opinion based on evidence that I find compelling, and I have referenced as much of this as has been practical. I also spell out in this book criteria by which I have been working out what sources to trust. Please accept my apologies for the use of phrases like 'in my opinion' even in cases in which the evidence I've presented speaks plainly for itself. I hope you understand the reason

that I have resorted to such phrases, in a world in which the rich can use the legal system as a tool for bullying. I hope I have also treated everyone with the universal respect that I advocate, even in cases where I think that they have been grossly dishonest, disrespectful to the public and/or reckless with our world.

## Before We Begin . . .

Some caveats and words of reassurance: I'm not going to be encouraging anyone to get arrested, even though, as it happens, I'm supportive of that kind of action too if it's done very carefully and with absolute respect for everyone who is affected. It's not even about taking to the streets – although I've done that myself from time to time – and it's not about being a particularly strong person, or an unusually kind one, or even impeccably truthful, as I can't profess to be any of those things either. In terms of positioning, this is not a party-political book. In the United Kingdom, the United States and many other countries there has been appalling and routine dishonesty from a great many politicians in recent years. This cannot continue within any political party. I don't believe in 'false balance'; I'm going to pick my examples based on their illustrative value, rather than their political colour or out of any sense of duty to represent the whole political spectrum. The climate and ecological emergencies we face *must* transcend party politics, and in the end will require a huge evolution of how political systems function and how all parties conduct themselves. By the time you read this, the specific examples may be out of date, but the principles behind them are timeless – and in fact are becoming more essential each day.

The logic of the argument has taken me to writing quite a lot about politics, even though I don't really come from

that world, except as an engaged citizen in an imperfect democracy. So you might ask, as I have asked myself, who am I to comment on such things? My answer comes in two parts. Firstly, the current state of affairs is so inadequate for today's situation that fresh eyes are essential, especially since the political sphere is so engrossing that for many it becomes myopic. All too often those with the most experience seem to have lost, or have never had, the ability to see politics other than through its own terms of reference. Secondly, although I have approached politics from first principles, I have augmented this with as much input from those with experience at the coal face as I have been able to gather.

Finally, given the importance of being truthful with ourselves and each other, I had better try to address my own biases. If I were somehow able to put aside the Polycrisis I would still, as it happens, have some personal and political inclinations, which would leave me more sympathetic to some politicians than others, even if I felt they were all equally honest. I'll mention some of them now, just for transparency and so that you can decide for yourself, as you read, whether they have any impact on, or bias, the arguments I'm going to make.

I think it is very important to reduce poverty and to enable opportunities for all. I think that requires a reduction in inequality, as well as the provision of high-quality essential services such as healthcare, education and a social safety net for everyone. I don't believe in the concept of 'trickledown' - the idea that making the rich richer is also a way of helping the poor. I do believe in taxing richer people, like me, who can afford it, as I believe that is, in the end, in everyone's interests and I do not believe in totally free markets. I think markets need to be adequately moderated by regulations and laws and, just as importantly, by public insistence on cultural values of fairness and equity. There is always room for

differences of opinion, if they can be expressed truthfully and with an honest desire to learn from each other.

This is my attempt to be honest with you about where I stand, so there are no hidden agendas. As you read, please do feel free to take a moment to reflect on any biases that you may be bringing to your interpretation since, as we'll see, this is an essential habit for all humans to develop. Also, please do apply what you read here to your decisions about the politicians you vote for, the media you absorb, the businesses you buy from, what you do at work, how you live at home, and whether or not you join a campaign. **Your actions matter. They do make a difference.**

However bad things may or may not get along the way, it is only with higher standards of truth – higher than we've ever known – that we will finally stand to make progress on the biggest, and hitherto most frustrating, depressing and infuriating, issues of our time. My hope is that by the end of this book I'm going to give you a very clear sense of agency; and a sense of the simple but powerful things that all of us can do *right now* to make meaningful change. In that sense I aim to give you *realistic* hope – even if you have been losing yours.