

Introduction

This book has been years in the making. I thought about writing this book for years before I started on this project and finally started gathering information and notes about 10 years ago. I was still working a day job as the energy engineer at the Coors Brewery in Golden, Colorado, focused on reducing energy, water, and waste. When a retirement package was offered in 2018, I decided to take it, figuring I could finally write my story. That was 8 years ago, but at the time I was training to climb mountains and climbing said mountains, as well as working to build my small personal-care products business, so I wasn't spending as much time on my book as I originally intended.

My challenge was mainly that I had a lot to say about environmental sustainability, but I wasn't sure what to say first or how to organize the enormous stacks of information I had gathered. I wanted to say things in a way that flowed, and that inspired others to take action and make a difference. It's been obvious to me for years what needs to be done, and I always try to walk the talk and set an example, but when I bring up the environment in conversation I often get rolled eyes and people tune out. To me, the destruction of our planet is the biggest priority of all, yet people find the subject boring and tedious? What does that say? To say the least, I find that attitude horrifying.

The social and cultural issues had to be somehow included with all the information and tips. Also, I had to figure out how to make a case that our planet is really in trouble, global warming is not a hoax, and we need to act quickly because we've been ignoring the issue for far too long. Luckily there are a lot of like-minded people out there with wonderful and inspiring ideas and stories, and it's reassuring to know that there are other influencers besides just little old me who are pushing for change. At the end of the day, it's not that hard, much as the media and extremely wealthy influencers would like us to think otherwise.

Something that finally dawned on me that makes my book useful (I hope) at the grass-roots level, where our individual choices accumulate from the bottom up, is that I'm including everything. Because it's all important. Most environmental information seems to be in silos, even though everything is related and it's all important. For example, environmental books and articles focus on a specific aspect of the environment or of sustainability. It can be wildlife, a specific species that we're losing, population growth, the land that we're overrunning, the air that we're polluting, the ocean that we're trashing, the microplastics, agricultural practices, the problems with beef, poisons, pollution, saving energy, solar and renewable, economics, and politics—to name a few. These are all essentially snapshots of small parts of the big picture, and, by definition, environmental sustainability is a depressing topic. We hear a lot about the individual problems, which are all true, but we're left with a sense of hopelessness that leads to inaction. I mean, what am I supposed to do about the whales?

A term for the phenomenon of separation of topics that I learned at Coors is "silos," where the different departments within the brewery, like brewing, fermenting, conditioning, packaging, utilities, and warehouse, all worked within their departments and knew little about what the other departments were doing, or how their particular department impacted and was impacted by all the other departments. There was an "us" and "them" mentality that was the opposite of connection. It turns out that communication and connection are a whole lot more efficient and, yes, profitable in a factory like a brewery. We worked over many years to develop a culture that broke down the silos, and it helped a lot.

In the context of environmental sustainability, in this book I aim to break down the silos, if you will, and show how every action we take impacts our environment and the other amazing species that live on this planet. Everything is connected, and if we understand the connections better, we'll be more informed and understand how our everyday choices and actions either help our planet, make our planet better, or make it worse.

At the end of the day, who but a severely OCD environmental sustainability fanatic like myself would even go through all this stuff and put it together? So, I decided that this would be the special contribution of my book to planet Earth. To gather all the information together into one story that is complete, hopeful, and inspires change. Change that's really not that difficult. As an engineer, I'm all about the numbers, and I like specifics that define actual progress towards targets. I learned this from decades working for big corp and learned it well. It's just good business to measure against attainable targets, and luckily it's actually a lot more fun and definitely more satisfying than just shooting at random targets and hoping for the best.

After all my research, I can tell you something that I couldn't tell you before. I can tell you that we have to reduce our carbon emissions per capita (per person) in the U.S. by 80% by 2050 in order to have any chance of salvaging what's left of life as we know it on our planet. I can also tell you that, of that 80%, my husband, Hilary, and I have reduced ours by more than 62% already. We have a nice and happy and fulfilling life, we're not wanting for anything, and anybody who doesn't know us well wouldn't even be aware of our reductions unless we told them. We even travel. That's how simple it can be. It's a matter of paying attention to what we're doing and avoiding unnecessary emissions and waste.

In 2022, I finally had a plan and an outline and wrote the first three chapters. These comprised the first section, "The Big Picture," which seeks to identify our environmental problem specifically, and then define exactly what we need to do about it, at a global level. I used carbon dioxide (CO₂) emissions as a measure of the problem because CO₂ results from everything that we are doing to run our planet into the ground. It's also easy to find information about CO₂ emissions on the internet. We have historical, global CO₂ data, we have CO₂ emissions for every country on the globe, and we have CO₂ emissions broken down into many different categories by our own U.S. Environmental Protection Agency (EPA) that are all readily available. It's simple to calculate CO₂ emissions from burning fuels to drive our vehicles, electrify and heat our buildings, make our goods, and produce our food. Putting everything into units of CO₂ makes it easy to measure all of our impacts in the same "apples to apples" units.

The second section, on human population, was also easy to write, though I struggled somewhat on whether it should be kept as the second section or moved towards the end. It's a very controversial topic, which was a case for keeping it until later in the book, but it also underlies every single environmental problem we have on this planet, and I realized that I couldn't explain the other topics without an understanding of population. Also, it has the highest return on investment of any planet action we can take. Yet another issue is that population control will take longer to implement, and will take longer to have an impact, so I decided it was best to get that in front of the story. The good news is that, as controversial as population control is, it's actually not that hard or brutal if we're sensible about it. We definitely have to lose the silos when it comes to population.

The third section digs into the many reasons why our wildlife populations are plummeting towards extinction, and how changing our consumer behavior and giving them space can bring them back to a reasonable extent—as long as we change now. If we wait another 20 years, we'll pass a point of no return when it comes to wildlife. It's that bad. By the way, population strongly underlies the crashing wildlife, as we're literally pushing them to the edges with our sheer numbers, a point I challenge the reader to argue with after reading this section.

The fourth section gets into the "envelope" of our planet, including the air that we breathe, the land that serves all terrestrial life on the planet, the water that serves us all, and the impacts of our wastewater. The stories in the fourth section are intricately linked to the previous sections to break down the silos and bring together our individual actions and how they impact our planet and the wildlife that we humans share it with. It's my hope that the first four sections help us understand what we are doing to our planet, how we are doing it, and create a sense of urgency to stop the carnage. I hope these sections give us a sense of hope, rather than futility, and make us badly want to do something now and not later.

In the fifth section I finally get to the heart of the book, which is our individual carbon footprints by category, to help each of us take action to reduce our impact on our planet and the life we share it with. I actually had to stop writing after the fourth section, for about a year and a half, because there were so many calculations to do. I needed to ferret out specific carbon footprints of all our emissions and goods, making sure that nothing was left out, and that everything rolled up to the reported EPA U.S. emissions. I started this work in 2022, and the most complete data was for 2020, so I made that the baseline for the entire book. It's obviously already 6 years out of date, but I know that since 2020 things have become worse, not better, and the story won't change a bit other than the fact that we're now 24 years from 2050 instead of 30 years. I also know that with each passing year, the numbers will be another year out of date anyway.

I finally was able to get back to writing in the fall of 2024. I basically freaked out when Trump was elected, and began to spend many hours each day on my book, setting all else aside, almost as a form of therapy. The book had to be written. NOW. It actually helped. With each passing chapter, I felt a little better. A little more sane. Maybe even a bit more hopeful, because I realized that each of us truly can make a difference with our choices, and we can turn this mess around, with or without a hostile federal administration.

I prioritized humanity's carbon emissions in a completely different format than the reader typically sees. The first chapter in the fifth section ends with a table that shows our all-in carbon emissions per capita, with detail about how I arrived at the numbers, using glass production as an example. From there, each subsequent chapter outlines the priorities from our highest emissions (food), down through the rest of the priorities. The silos are broken down, as food production impacts land, water, wildlife, and air, in addition to emitting massive amounts of CO₂. Naturally, tonnes of CO₂ won't mean much to most people, so I used percent of total emissions and percent reduction, hoping that will speak more clearly and more personally. For example, if food is 20% of our carbon emissions, and we can reduce those emissions by 50% by only eating organic food, then we've reduced our overall emissions by 50% of 20%, or 10%, which is a decent move in the right direction towards the needed 80% per capita. Every category has opportunities, and if we take these to heart and pursue them one at a time, we can save our planet and a decent portion of our wildlife, to the extent that it can be saved at this point. My own path to reducing emissions and impact for each priority is woven into the story, in hopes of setting an example of what each of us can and should do, and the impacts of our actions.

The final section takes a look at economics, politics, and culture, how these impact our environment, and how our daily decisions and choices can either help or hurt our planet.

I hope this book inspires the reader to make changes that will truly impact our environment. For our planet, for future generations, and for our fish and wildlife. I hope that once you read this, your thinking will be forever tainted with the knowledge you find here, and that you will never view our world and your place in it the same way.