

# *Introduction: We Have Had A Great Run, But...*

*“There are no silver bullets, only silver buckshot.”*

—Bill McKibben

The world has experienced 140 years of economic progress that has brought billions of people out of poverty and modernized lifestyles around the globe.

We have so much to celebrate: science solving cancer and other diseases; iPhones, chatbots, methane-detecting satellites; prosthetics to replace hips and knees. We have heat in the winters and air conditioning in the summers; and, sometimes, a little whiskey with friends.

Logically and predictably, while working toward all these developments, our economic systems incentivized us to use the lowest-cost energy sources. This had an unintended side effect on our planet.

Too much carbon dioxide (CO<sub>2</sub>) was released, at zero cost to emitters.

Economists call CO<sub>2</sub> emissions an externality, or a cost that is not priced. Examples include pollution from factories, second-hand smoke, and

## *Carbon Done Correctly*

biodiversity loss from deforestation. The biggest externality of all is the CO<sub>2</sub> emitted into the atmosphere.

For the first 100 years of this 140-year economic boom, there was no scientific awareness, let alone consensus, about the unintended consequences of our reliance on fossil fuels. It wasn't until 1977, when Exxon's scientists raised the flag of potential "catastrophic consequences" from rising CO<sub>2</sub> concentrations in the atmosphere, that people started to take the early warnings by Dr. James Hansen and others more seriously.

Fast forward to 2023, and the science is abundantly clear. Our emissions are warming the atmosphere and causing global climate disruptions at a scale that is hard for any of us to deny. We have experienced fires, floods, hurricanes, typhoons, and record heat. We have learned about the acidification of our oceans, the melting of the Greenland ice sheet, the bleaching of coral reefs, and so much more.

If we are to continue to deliver broad-based economic growth to the eight billion people living on this planet, the objective is clear. We must limit carbon dioxide and methane emissions while continuing to deliver equitable economic growth and social benefits to the citizens of Earth.

### *Now, we need action on all fronts*

There is no value in assigning blame. What's done is done. It is time to move forward. With the same ingenuity that created so much advancement in the past, we must now turn our talents to fixing the problem we have created.

And we must do so with urgency. This problem will not wait. Delaying our response—or worse, doing nothing—exposes humanity, particularly the most disadvantaged communities, to the risk of a climate catastrophe and the economic and social devastation it will cause.

We also need to recognize that there is no silver bullet to resolve the problem of CO<sub>2</sub> concentrations in the atmosphere. We need to utilize all the tools in our toolbox to reverse carbon emissions from our economic systems. We need compostable plastics and the infrastructure to support

their safe disposal; high-resolution satellites to pinpoint methane leaks; green hydrogen; new generations of nuclear plants; environmentally safe energy storage systems; and many new technologies that are not yet commercially viable or have not even been invented.

We need an “all of the above” solution.

## *The Voluntary Carbon Market*

One of the essential tools in our toolbox is the Voluntary Carbon Market (VCM). The VCM is not *the* solution; it is *a* solution. The VCM represents one tool in the “all of the above” toolbox.

Our analysis has confirmed that we cannot reach 1.5 degrees, and corporations cannot reach their Net Zero commitments, without the VCM. This is why so many of us are dedicated to creating the Framework for the VCM. The VCM is an essential tool to fight climate change.

## *An overview of the VCM*

*What is the VCM?*

The Voluntary Carbon Market is a system where companies and individuals can purchase carbon credits to offset their greenhouse gas emissions. These carbon credits are generated from projects that reduce or remove carbon dioxide or other greenhouse gases from the atmosphere.

The VCM can deliver benefits for the planet because:

- It puts a price on carbon to communicate the cost of carbon emissions — an essential element of integrating the true costs of climate pollution into the global economy.
- It enables corporates to immediately complement their efforts to reduce operational carbon emissions, increasing their ambition and impact.
- It is a market mechanism that can advance essential ecosystem restoration, support critical biodiversity, reduce air pollution, increase

climate resilience, and improve social outcomes for disadvantaged communities, particularly in the Global South.

- It is a platform to mobilize billions of dollars of private capital into projects that reduce carbon emissions and accelerate the energy transition that would otherwise not have occurred.

### *The learning curve*

The conceptual overview of the VCM is useful, but to really understand the VCM, we need to dig deeper. We need to understand more about carbon projects, and what it takes to create high-quality projects that verifiably contribute to the fight against climate change.

An analogy to investing in the stock market is helpful: an investor must be able to judge a company's performance to make a rational investment decision. This is no less true for the VCM, but the fact is that creating great carbon projects, which were virtually non-existent at the beginning of this century, and the analysis by buyers to differentiate between carbon projects, are skills that are still evolving. We are still on the learning curve.

The ultimate objective is for all market participants—carbon projects and corporate buyers—to work exclusively in high-quality, high-integrity carbon credits. We call this the Top of the Pyramid, where the highest level of integrity and quality is the law of the land.

In the first sections of this book we share the story of Proyecto Mirador, a non-profit established in 2004 to help disadvantaged communities in rural Honduras. We tell the story of how, from humble beginnings, Proyecto Mirador forged the path to success as a leading carbon mitigation project in Central America. We hope that the lessons learned at Proyecto Mirador may help others as they strive to reach the Top of the Pyramid.

We then tell the story of Cool Effect, a non-profit created in 2014 to connect carbon projects with corporations seeking to offset their carbon emissions in the Voluntary Carbon Market. The Cool Effect business model offers

insight on what is needed, by both buyers and sellers, to reach the Top of the Pyramid in the VCM.

These experiences, at both Proyecto Mirador and Cool Effect, illuminate both the huge potential of the VCM to mitigate climate change, and the actions that will be required for the VCM to reach maturity.

## *A Framework for the VCM*

In the final section of the book, we discuss how improvements must be made, and weaknesses rectified, for the Voluntary Carbon Market to play its essential role in the fight against climate change. The VCM is a relatively new financial market, and any new market faces trial and error in its formative stages. But time is of the essence, and we must work urgently. This book therefore proposes a framework to improve and strengthen the VCM to accelerate its advancement as a fully functional financial market.

Underlying every aspect of the VCM Framework that we propose here is transparency. Without full transparency, the VCM cannot succeed; with transparency, everything is possible. Transparency determines success for the VCM, so much so that it can be described as a maxim:

Transparency leads to Trust;  
Trust leads to Scale;  
and with Scale, the VCM becomes a financial asset class.

In 2021, the Voluntary Carbon Market reached \$2 billion, four times its size in 2020. That is impressive and good news, but it is a tiny fraction of what it needs to be. The VCM needs to reach scale in the global financial markets if it is to achieve its full potential.

## *Voices from the Top of the Pyramid*

If there is reason for optimism in the fight to mitigate climate change, it can be found in the emotional stories of the unsung leaders on the front lines to reduce carbon emissions. The amazing creativity of humanity is on display every day in the many people out there working for positive change.

This book incorporates the voices of leaders from all sectors of the VCM who are striving to get to the Top of the Pyramid, including the following:

- An 85-year-old Norwegian who figured out that communities protected by mangroves survived the 2004 tsunami in the Indian Ocean. He also learned that mangrove trees, by sequestering CO<sub>2</sub>, were a climate-saving miracle tree, and he has planted 75 million mangrove trees in the years since the tsunami—all funded by carbon credits.
- A mother of three with no prior work experience, but with exceptional innate talent, who has led an organization to build over 330,000 fuel-efficient stoves for the poorest of the poor in Honduras and Guatemala — also funded by carbon credits.
- Three sustainability officers for Fortune 200 companies who, with vision and determination, set their companies on a path to Net Zero.
- A successful investor and philanthropist who first raised the alarm within the investment industry to the dangers of our changing climate.

In the following pages, our journey to the Top of the Pyramid begins, oddly, with a weak storm moving slowly across the Atlantic Ocean.