

# The Challenge

**I say the debate is over. We know the science, we see the threat, the time for action is now.**

— Arnold Schwarzenegger

As a civilization, we look back on our past with pride and occasional shame. We know we are the most modern, technologically advanced civilization there has ever been on Earth. We can walk on the Moon, replace our ailing hearts and lungs, and phone each other across the continents. We are accustomed to being proud of our successes, while acknowledging our intermittent stupidity.

The origin of our species, if we allow our minds to travel back down the great chain of being, lies 4 billion years in the past. The fact that you live today is testament that all of your ancestors, without exception, lived long enough to pass their accumulated biological wisdom on to you.

We date the origin of the human species to about five million years ago. We started the adventure of modern science, which has taught us so much about nature, 500 years ago — just one ten-thousandth of that time.

We live inside a bubble of time, so it is difficult to ponder the existence of humans 500 years in the future, let alone a million years, but I invite you to ask your friends what they think will be the condition of humanity in 500 years, and then in a million years. I wager that most will respond with pessimism, suggesting that we will be extinct if not by the former, then certainly by the latter date. Yet a million years is only a tiny 0.028% additional fragment of the time since life began.

What has this to do with global warming? It has to do with our state of mind. I argue throughout this book that the single most important factor that will determine whether or not we navi-

gate the rapids of global warming successfully will be whether or not we view what is happening as an inevitable disaster that is some kind of retribution for human greed and ecological ignorance, or an exciting invitation to embark on a new adventure into a climate-friendly, ecologically harmonious world.

Our future is all in our minds. If we allow negativity and pessimism to prevail, then all will be lost. But if we take hold of our optimism, remembering the incredible things that humans have achieved and the amazing promise of what lies ahead, we will have what it takes to succeed.

There is no mistaking the urgency of the matter. We know that carbon dioxide and the other greenhouse gases trap heat, and we know that during the past million years, Earth's atmospheric CO<sub>2</sub> has never risen above 300 parts per million. Yet today, as a result of our burning fossil fuels and destroying the tropical rainforests, by 2009 the concentration had reached 389 parts per million, and it is rising steadily by more than 2 ppm a year. The world's climate scientists are warning us with increasingly desperate and urgent voices that we may be losing our ability to prevent Earth's temperature from rising by 2°C, and that if we pass 2°C we may be unable to prevent further increases of 3°, 4°, 5° or 6°C, placing the entire existence of life on Earth in jeopardy.

We are most certainly in a pickle, for which we need a most urgent response. We have been in a pickle before, however, and as this book will show, we do not lack for solutions. If we put our minds to it, there is no reason to believe we cannot succeed.

Interestingly, the world's oil and gas supplies are also about to start running out, so even if global warming did not exist, as many skeptics would like to believe, we would still have to achieve an organized transition into a world that can flourish without fossil fuels.

Why should we think that we cannot achieve such a transition? Only a hundred years ago, most of us got around by riding around on horses or walking. Look at what we have achieved. As a species, we may be stubborn, stupid and proud, but we are also intelligent, creative and courageous, and we love a challenge. We climb mountains. We cycle across continents to raise millions for causes that strike a chord in our hearts. Blind people sky-dive. Quadriplegic people go sailing.

Global warming presents us with an enormous challenge. If we fail, we condemn future generations to millennia of grief and destruction. They will curse our names, knowing that even when we knew what would result, we chose to continue to indulge our love of fossil fuels rather than stop and change direction. If we succeed, however, a whole new era will begin.

Will the adventurous side of our nature pick up the challenge and steer us into an ecologically sustainable future? Or will the lazy side of our nature win out, making ever more pathetic excuses as the sea level rises and Earth's species become extinct?

Only Earth's future historians will know. Our task is to take up the challenge before it is too late.

*I do believe that if we fail to act in time, it will be the single biggest regret any of us has at the end of our lives.*

— Joe Romm, author of *Hell and High Water* and the Climate Progress Blog



Wartime poster of Geraldine Doyle, a riveter in the 1940s.