

Our Planetary Emergency: Waking Up to the Serious State of the World— Particularly Climate Change

We've waited too long to stop the advance of global warming, and massive change is not only unavoidable but already underway. Our old familiar globe is suddenly melting, drying, acidifying, flooding, and burning in ways that no human has ever seen. We've created, in very short order, a new planet, still recognizable but fundamentally different.

-Bill McKibben, environmentalist/founder 350.org; author, Eaarth

We are the first generation of "planetary humans," seeing and understanding the expansive vision of science, deep history, evolution, and our long developmental process. From this perspective, let's look at where we are now. What is the story of our time?

In their great book *Active Hope, How to Face the Mess We're in without Going Crazy,* Joanna Macy and Chris Johnstone suggest three broad stories about our current world situation and moment in time. She calls them: *Business As Usual, The Great Unraveling,* and *The Great Turning.*

The first [story] assumes that our society is on the right track, and that we can carry on with business as usual. The second reveals the destructive consequences of the business-as-usual mode and the progressive unraveling of our biological, ecological, and social systems. The third is about the groundswell of response to danger and the multifaceted transition to a life-sustaining civilization. Recognizing that we can choose

the story we live from can be liberating; finding a good story to take part in adds to our sense of purpose and aliveness.

-Joanna Macy, ecophilosopher/author, Active Hope

It's crucial to understand these very different stories that people are simultaneously living out, depending on their worldview. In this chapter, we will explore the first two stories. The third story unfolds in the final four chapters.

Let's look briefly at our world through the filter of the *Business As Usual* story. In the approximately 300 years since arising, the modern era and worldview have brought humanity amazing progress and growth—in science, food production, medicine, technology, standard of living, life-extension, culture—impacting virtually everything.

As a result, our human population has grown from 1 billion in 1800, to 7 billion in 2012. Average life expectancy worldwide is now around 67, double what it was just 100 years ago. With countless benefits for so many, this worldview/cultural system has become spectacularly successful over the years, in countless ways. It's about success, consumption, material prosperity, and constant growth in the economy and our standard of living. We who live in developed countries are the most privileged people in history, with the highest standard of living—even greater than much past royalty. We now have access to most known information within seconds. Modern society—with all our comforts, technologies, opportunities, and luxuries—is clearly positive and beautiful for many fortunate people. There is much to celebrate and be grateful for in this story.

When you're living in the middle of this story it's easy to think of it as just the way things are. Young people may be told there is no alternative but to find their place in this scheme of things. Getting ahead is presented as the main plot, supported by the subplot of finding a partner, fending for your family, looking good, and buying stuff. In this view of life, the problems of the world are seen as far away and irrelevant to the dramas of our personal lives.

-Joanna Macy, ecophilosopher/author, Active Hope

But inquiring deeper, we find there is also much distressing news, and quite a different story unfolding—*The Great Unraveling*. Socially, there is extensive poverty and great human suffering in much of our world. Around one third of our brothers and sisters in the world survive on less than \$2 per day. 20,000 children worldwide under age five die daily from malnutrition and other preventable causes. Conflict, terrorism, and wars continue. Corporate power and malfeasance are growing, extreme inequality is expanding. Great poverty, joblessness, homelessness, and suffering exist even in developed countries. Many social and financial systems are destabilizing, showing signs of breaking down—as demonstrated by the great recession and economic collapse of 2008.

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Environmentally, our burgeoning global civilization has reached and passed many sustainable limits, and far exceeds the carrying capacity of the planet. Our modern industrial system—with its constant demand for growth and its many serious impacts—has now become "catastrophically successful." Our growing over-population, with our runaway systems of production and consumption, now exert overwhelming pressures on the biosphere, natural resources, and the climate. We are polluting, warming, devastating, and fundamentally disrupting all the natural life-support systems on which we depend so completely. (For context, the following overview was written in 2013.) Consider a few of the key issues:

- Atmosphere and climate: Human activity every day (mainly fossil fuel emissions) adds around 90 million tons of CO₂ into the atmosphere. CO₂ traps the sun's heat, so as CO₂ levels keep rising, so do global temperatures. This is radically disrupting all climate and ecosystems, causing more extreme weather events everywhere. (More detail follows.)
- Land and soil: 40% of agricultural land in the world is seriously degraded. Globally, topsoil is eroding and declining significantly from increasing drought

conditions created by global warming. With warming, productive farmland is shrinking rapidly, turning into desert and dust bowl.

- Forests: Forests provide many critical functions in the biosphere. Yet, of all the world's original forests, humans have cut down over half; 90% of America's forests are gone. The World Wildlife Federation estimates we continue losing around 50 million acres a year to deforestation worldwide. Rain forest depletion continues. Forests naturally absorb CO₂, but that capacity has been seriously diminished by global deforestation. Forest fires are increasing, which adds to CO₂ levels.
- Agriculture and food: Harvests and yields are declining. With each one degree C of warming, food production declines about 10% (as populations keep rising). The 2012 drought affected 80% of all US agricultural land; heat cut harvests, and grain prices went up 40% in 2012.
- Oceans: The world's oceans are now several degrees warmer, and 30% more acidic because of global warming and CO₂ emissions. This is disrupting all ocean life and the coral reefs are dying. The oceans, a great natural carbon sink, now can't absorb CO₂ as efficiently as in the past.
- Polar ice: From global warming, the ice is rapidly melting in the Arctic, Antarctica, and Greenland. The Arctic hasn't been ice-free in thousands of years. It's now melting alarmingly fast, and some scientists predict summer sea ice will likely be gone in one to two decades—some say sooner, maybe even in this decade.
- Fresh water: From global warming, glaciers and snow packs are melting faster than before, affecting millions of people downstream who depend on this water for basic living. We are polluting much of the fresh water that is left, and rapidly depleting fresh water aquifers. Salt water intrusion into coastal fresh water sources is increasing as seas rise.
- Animals and plants: We humans are causing the greatest mass extinction of species in 65 million years—from our pollution, overharvesting, habitat destruction, overhunting, etc. Leading environmental scientist Norman Myers

says "There are about 10 million species on earth. If we carry on as we are, we could lose half of all those 10 million species."

- Resource depletion: Many of earth's vital resources are being seriously depleted by human activity. This includes depletion of minerals, oil, aquifers, forests, fish, etc., from human overconsumption, excessive mining and drilling, overharvesting, damaging agricultural practices, erosion, habitat destruction, deforestation, etc.
- Human impacts: Global population keeps climbing, with 9-11 billion people expected by 2050. Climate change produces substantial health impacts such as diminishing food production, greater malnutrition, increasing asthma and respiratory illnesses, more insect borne disease transmission, more deaths from extreme weather events, etc. Air pollution already kills 2.5 – 3 million people worldwide each year. (Stanford professor Mark Jacobson.)

Any one of these would be serious. But all these combined, interconnected and interacting, reinforcing each other, all getting worse—this constitutes a real emergency. The very success of our modern industrial system has brought us to the great crisis we now confront. Our collective modern system has become like an out-of-control cancer destroying its host—completely unsustainable, seemingly impossible to stop, and on a collision course with global disaster.

We now realize that humanity has unwittingly caused most of this damage—in just the past century. With the many advances in science, we were understandably excited by our newfound discoveries, opportunities, and successes. The awful irony is that until recently, we thought we were doing great good for humanity, improving the standard of living for all.

But we were like children in our environmental understanding. We simply didn't realize the earth's fragility and limits, the collective power and impact of our species, or the many ways we were devastating the biosphere. This is just how humanity adapted and evolved in our earlier history. Now, with our greater scientific understanding, we can see clearly what humanity has done in the past, and the escalating seriousness of it all in the present.

At the core, it is due to about 1 billion people living a high-emissions lifestyle, mostly in the US, Europe, and Japan. And globally, we are adding 2 billion more people to this lifestyle in the next few decades, mostly from China and India, adding to the already too high emissions and warming.

You're captives of a civilizational system that more or less compels you to go on destroying the world in order to live.

-Daniel Quinn, Ishmael

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With all that's happening in the world, we naturally feel the desire to better inform ourselves, particularly about climate change. So we read and research, learning about some of the key issues, evidence, and trends:

- In 2007, the IPCC issued their fourth landmark set of reports on climate change, sounding the alarm worldwide. Now, in 2013, our global emissions, and the alarming consequences, are already far exceeding the IPCC's worst case projections.
- While US emissions have recently declined slightly, they are still about twice that of Europe and Japan per capita. Overall, global CO₂ emissions and greenhouse gas levels keep climbing about 3% annually, with no serious reduction in sight. Because of this, worldwide temperatures keep rising. Global warming is escalating.
- 2012 was the hottest year ever on record in the US, as was the last decade. July 2012 marked the hottest month ever recorded. In 132 years of keeping records, 9 of the planet's 10 hottest years occurred since 2000.
- As climate scientists have predicted, global warming has brought more extreme weather events of all kinds. Heat waves, fires, drought, winter storms,

hurricanes, monsoons, flooding—are all increasing dramatically in frequency, scale, intensity, and destruction worldwide.

- The North Atlantic Ocean illustrates some of this. From global warming, it is now about 5 °F. warmer than 100 years ago, and the warmer atmosphere holds about 5% more moisture. Both these factors are fuel, adding tremendous energy, power, and size to storms.
- The largest US hurricane ever recorded, Sandy, devastated the northeast US in October 2012. While most hurricanes are around 300 miles in diameter, Sandy was about 900 miles across. The epic flooding and damage from storms like Sandy and Katrina foretell the worsening future for all the world's coastal areas, especially as sea levels keep rising.
- Sea levels changed little over the last 10,000 years—then came industrial times and CO₂ emissions started rising. In the twentieth century, as warming increased, the 7-inch rise in sea level was significant. Now, in the even warmer twenty-first century, the seas are rising at an alarming rate—from increasing global warming, melting polar ice, and the expanding volume of warmer seawater.
- The US Environmental Protection Agency (EPA) website (2012) projects a sea level rise by 2100 of roughly 1-2 meters (about 3-6 feet). Imagine, in 2100—all low-lying coastal areas, under 3-6 feet of water, and rising. For example, most of Miami now lies less than 5 feet above sea level, and will be increasingly submerged by rising seas. When sea levels rise 3 feet, over a third of southern Florida will be underwater, and the rest severely vulnerable to storms.
- Even worse, with accelerating warming and melting trends, many scientists now believe that the EPA estimates are quite conservative. They project that by 2100, sea levels will likely rise by more than 2 meters; some predict a rise of 4-6 meters, or more. That's about 13-19 feet higher, worldwide. And after 2100, sea levels will just keep rising—unless we act now.

The last time the planet was 2° warmer the oceans were 4-6 meters higher.

-Thomas Lovejoy, science professor, George Mason University

Considering the two bullet lists above, we start to get a sense of the serious state of our world. More important is realizing that the above issues and impacts are expected to get much worse over time. If we project the combined trajectory of these issues forward, where is all this taking us? What kind of future and world are we leaving to our kids?

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In the past, the climate change debate has been complicated and confusing, clouded by skeptics, deniers, and a massive misinformation campaign by fossil-fuel interests (with hundreds of millions spent). No more. The global warming debate is effectively over. Recent surveys of thousands of published climate scientists reveal that 97% of the scientists accept the reality and grave threat of global warming. So does every developed country, including, finally, the US. After the extreme weather of 2012, 70% of the US population believes that climate change is real (Bloomberg News, 2012).

Richard A. Muller, a respected physicist at UC Berkeley, was one of the most prominent climate change skeptics. He once said that climate research was "polluted by political and activist frenzy." Muller assembled the Berkeley Earth Surface Temperature project to check the previous studies. His team of a dozen scientists examined five times as much data as other researchers, and studied the specific objections of skeptics in detail.

Their surprising conclusions? Global warming is real. The previous studies are correct, and the science is strong. And Mr. Muller concluded "humans are almost entirely the cause... essentially all of this increase results from the human emission of greenhouse gases." (Richard A. Muller, The Conversion of a Climate-Change Skeptic, NY Times, 2012)

Imagine for a moment that your child is sick, with a rising fever and other serious symptoms. You don't know exactly what it is, or the cause, so you go to 100

doctors for a diagnosis. 3 doctors say they don't think there is any real problem, they advise doing nothing. 97 doctors say it is very serious and rapidly getting worse, urging immediate emergency action. The outcome lies in your choice. What would you do?

We need to face up to the fact that there is only one leg on which climate denial stands: money. The polluters give and spend money to create false doubt. The polluters give and spend money to buy political influence. The polluters give and spend money to keep polluting. That's it. That's it. Not truth, not science, not economics, not safety, not policy, and certainly not religion, nor morality. Nothing supports climate denial. Nothing except money.

-US Senator Sheldon Whitehouse, (RI)

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Now, thanks to the advancing science, we know our global climate crisis is far more serious than we thought. It's getting much worse—far faster than expected.

Clearly, the science is vast and complex. But let's consider a few of the most essential issues, and some of the latest information that science has provided us in this area.

Earth's pre-industrial ecosphere systems were sensitively balanced and quite stable for about the last 10,000 years. Two key indicators of this stability were CO_2 levels in the atmosphere, and the average global surface temperature. They remained relatively consistent, at around 275 parts per million (ppm), and about 13.7 °C (57 °F).

But both measures have gone up significantly in just the past century. Many top scientists, including former NASA climate expert James Hansen, consider 350 ppm of CO₂ to be as high as we can safely go. But we have already sailed well past 350 ppm, and have now passed 400 ppm (in 2013). This is the highest level in human history,

and scientists believe the highest in at least 800,000 years (probably 3 million years). 400 ppm is over 40% higher than pre-industrial levels, and well above levels considered safe. And the trajectory continues upward at about 3 ppm per year.

The global average temperature has now risen almost $1 \,^{\circ}$ C above pre-industrial levels (.8 $^{\circ}$ C, or 1.4 $^{\circ}$ F), and continues rising steadily. Roughly two-thirds of this warming increase has occurred since 1980.

An increase of 1 °C doesn't seem like all that much. But it is. Even seemingly small changes in average global temperature can bring significant changes to all the interacting climate systems and ecosystems around the planet.

Science has discovered that there are "positive feedback loops" that can amplify global warming and accelerate climate disruption. One key feedback example is the melting of the Arctic ice, which recently covered 2% of earth's surface. Like a vast mirror, the arctic ice sheet reflects 80% of the sun's heat away from earth. However, the open ocean absorbs 80% of the sun's heat. So as our rising CO₂ heats the planet more, the Arctic ice melts more, and reflects less heat. Then, with more open ocean, more heat is absorbed, which melts more ice, continuing and accelerating the cycle.

Another feedback example is the Arctic permafrost (a permanent layer of solid ice just under the soil, present even in summer). With climate warming, the permafrost has started melting faster, and is releasing more methane into the atmosphere. Methane traps over 20 times more heat than CO₂, and there may be twice as much methane stored in the permafrost as there is CO₂ in the air now. As warming increases, the permafrost melting could accelerate, release runaway levels of heat trapping gases, and cause a state change leading to unstoppable global warming and escalating climate disruption. (Other serious feedback examples include the melting ice in Greenland and Antarctica, and deep ocean methane hydrates.) There is one key fact that virtually all countries agree on—*warming must not exceed* $2^{\circ}C$ over pre-industrial levels. In 2009, 157 countries (including the US) signed the Copenhagen Accord which recognized "the scientific view that the increase in global temperature should be below $2^{\circ}C$ (3.6 F)... We agree that deep cuts in global emissions are required so as to hold the increase in global temperature below $2^{\circ}C$."

Some experts say that this 2° warming limit is the extreme risk point—the line we cannot cross. Some say it is the point between what is already dangerous at nearly 1°C warmer, and what is very dangerous at 2°C—for all of humanity, and all life on Earth. Some top scientists feel that even a 2°C increase is too much. James Hansen says that "The target to limit global warming to 2°C, rather than being a safe 'guardrail,' is actually a recipe for global climate disasters."

A 2 °C (3.6 F) increase doesn't sound too bad. But we are already almost half way there, with far greater negative impacts than most expected. And, there is a delayed effect that builds over time—even if we stopped all emissions now, warming would still increase around half a degree from the CO₂ we've already released. The impacts of this CO₂ in the atmosphere will last for hundreds, if not thousands of years.

Sadly, we're far from stopping. Even with years of valiant efforts by countless people and groups, and important reductions in some areas, overall, we are not reducing CO₂ emissions. With increasing population, rising standards of living, and growing demand for fossil fuels, globally we continue raising emissions by about 3% per year. And so the temperature keeps ticking upward...

As our emissions keep climbing, we are currently on track to warm the planet well past 2° . Three alarming reports on global warming came out in late 2012—from the World Bank, PricewaterhouseCoopers, and the International Energy Agency. In brief: they predict our present emissions path will produce global warming of 4-6 $^{\circ}$ by 2100. This will bring radical climate disruption worldwide, much higher sea levels inundating all low-

lying coastal areas, and an increasingly hotter, chaotic world, which they describe in terms like "disastrous" and "apocalyptic." The World Bank said, "*There is also no certainty that adaptation to a 4° world is possible*." This warning is not from radical environmentalists—this is a prediction from the conservative establishment, based on recent scientific data. This is our world's current trajectory. It's where we're headed, unless we change radically. And it's not that far away—some of our children being born now will be alive in 2100.

Scientists warn that if we continue our current pattern of emissions and warming, at some point, escalating feedback loops could reach a *tipping point* where things spin out of control—causing runaway warming and climate disruption, regardless of any human efforts to stop it. All this would bring unstoppable cascading effects, increasingly serious ecosystem disruption, and eventually, near-hellish global conditions. And these changes would likely be irreversible for thousands of years. That is our greatest risk. Of course, we don't know exactly when or how that tipping point might happen.

For humanity, it's a matter of life or death... it's extremely unlikely that we wouldn't have mass death at $4 \,^{\circ}$ C. If you have got a population of nine billion by 2050 and you hit $4 \,^{\circ}$ C, $5 \,^{\circ}$ C or $6 \,^{\circ}$ C, you might have half a billion people surviving.

--Professor Kevin Anderson, Tyndall Centre for Climate Change

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One of the big challenges of the emerging climate crisis is understanding just how much trouble we're in; how close we are to tripping the circuit breakers that will put the climate, and society globally, into crisis. Now we have an emerging understanding of just where those red lines are-and they're frighteningly close.

(Thanks to Bill McKibben for some of the detail in the next few pages—from his seminal article, *Global Warming's Terrifying New Math*, Rolling Stone, July 2012. A must-read.

And a great source for information on the science of the climate crisis is at his 350.org website.)

Scientists and analysts have now calculated roughly how much more CO₂ humans can collectively emit before we pass the limit—the 2 °C warming threshold. That number is around 565 gigatons of additional carbon dioxide. This is our carbon budget; it's all we can use.

They have also calculated the current level of proven reserves that the fossil-fuel companies have in the ground, ready to be extracted and burned. These reserves will produce roughly 2,795 gigatons in CO₂ emissions. This is **five times** the amount that will take us beyond the 2°C warming limit. Five times! And they intend to use it. *This cannot happen!* 80% of fossil fuel reserves must stay in the ground.

It gets worse. Since McKibben's article revealed the 2,795 gigatons in reserves, we're now aware of additional large reserves of natural gas and tar sands, and advances in extreme extraction technologies like fracking. This means there is now far more than 2,795 gigatons in reserves.

Perhaps most disturbing, analysts have also calculated how long it will take us to get to the 565 gigaton threshold—the 2°C warming limit—the danger point scientists keep warning us about. How long? (Take a deep breath.)

By continuing our current emissions path (3% annual increase), it will take only about 15 years until total CO₂ levels globally exceed the extreme 2 $^{\circ}$ C limit.

15 years! With our earlier understanding, some experts said that it could be 50 years, 100 years, or more. *But from the latest science, 15 years is the best that we know at this time (in 2013). 15 years is around 2028.*

Whether it's 15 years or 50 years, it's the same terrifying revelation—this is our children's and grandchildren's future, about to burn! Unless we stop it.

15 years! The visceral shockwave of this 15-year revelation penetrates deep—the realization of this profound danger jolts us awake. It's now clear that we face an authentic global climate emergency—a threat greater than anything modern humanity has ever faced.

Yet here we are, inside a bubble of denial, mostly ignoring this monumental threat. We're dreaming that things are okay, enjoying our modern comforts, largely oblivious of this steadily building calamity. There is little sign of effective action by political leaders and dysfunctional institutions to address the many serious problems.

Our current collective system is like a self-indulgent, drunk driver, half asleep, driving the bus of humanity in a fog of ignorance and denial, careening faster and faster down the road of excess, oblivious he is approaching the cliff of inconceivable catastrophe. What's most urgently needed is for the sober adults on the bus to step forward, take the wheel from the drunken driver, put on the brakes, and turn away from the cliff. Immediately.

So awesome is the devastation we are bringing about that we can only conclude that we are caught in a deep cultural pathology, a pathology that is sustained intellectually by the university, economically by the corporation, legally by the constitution, religiously by the church.

-Thomas Berry, Cultural historian/Catholic priest/eco-theologian

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We spend a great deal on insurance to protect from risks of fire, flood, accident, etc. The risk of the global climate crisis is higher, increasing, and unprecedented in scale; certainly enough to warrant broad cultural change to avert the threat. The risk is great enough to responsibly invest in the insurance of real action—to protect our children, and preserve our planet.

Scientific and government experts are increasingly saying that without rapid radical changes, humanity likely faces a much hotter, almost unimaginably difficult future. By projecting our current patterns of emissions and warming forward, scientists and computer models are making this disturbing possibility more specific and real for us. Such models and projections show us how this trajectory and hotter future will likely play out—over an unknown span of years—unless we change course quickly. Here is a general summary of several expert projections:

Our current rising populations, extreme inequality, and destabilizing economies lead to growing poverty, homelessness, suffering, and social erosion worldwide. Everincreasing emissions and carbon pollution levels bring more warming and climate change—faster than expected. Extreme weather events and storms increase. From warming, and increasing melting of Antarctica and Greenland, the sea level rise accelerates. In coastal areas, this brings increasing flooding in many cities. Vast productive agricultural lands are flooded and lost. Increasingly, coastal economies and property values crash. All this leads to the progressive dislocation of millions of coastal residents. They migrate inland, overloading resources in those areas, and gradually overwhelming national and international assistance. Millions of people struggle with homelessness, migration, and starvation.

With runaway losses from extreme weather events, insurance systems start contracting, then failing. Spending and investment dry up. Business failures rise, putting ever more people out of work. Financial markets start contracting and breaking down. With rising heat, there is increasing drought, harvest failure, and famine. There is less air conditioning in summer, less heating in winter. Food becomes more scarce, prices go up. With melting glaciers and drought, fresh water becomes more scarce. Gas supplies get short, then start running out. Social structures start breaking down. Massive protests and disorder spread. Growing numbers of desperate people compete for scarce food and resources.

As emissions keep rising, the climate gets even hotter and more extreme. Sea levels keep rising, causing greater flooding and dislocation. Coastal cities, increasingly underwater, are gradually abandoned. With diminishing productive land, epic heat waves, fires, and drought conditions, harvest failure and famine increase. Diseases proliferate—dengue fever, malaria, and cholera; epidemics and plagues begin spreading. Military conflicts rise over declining resources and habitable territory. Conflict, lawlessness, and terrorism increase. As civic order breaks down, martial law spreads.

The remaining big cities start destabilizing. Systems of food production, commerce, and distribution start breaking down. Global cooperation and alliances begin destabilizing and breaking down. Electric power systems begin brownouts, then blackouts. Food becomes more scarce. Starvation and death spread. Civil society degenerates—with basic services breaking down, including law and order. Governments begin destabilizing. Chaos, starvation, conflict, and wars worsen. Cities become increasingly dangerous and uninhabitable.

All these interdependent factors escalate, converge, and spin out of control. Some trigger takes us past a point of no return. Civilization begins failing, breaking down, collapsing—locally and globally. In many areas, food runs out. There is mass starvation. Billions die horribly. Modern life is over, in ruins. Those who survive must find their way in a very different broken-down world—a much hotter, more primitive, chaotic, survival-centered world and existence.

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From the mounting evidence, we now see that such a dark future is not just some farout science-fiction fantasy. We are already in the early stages of such a process and scenario. It's a real and building threat—right now. This is where our current emissions are taking us! That scenario could be the real-life final chapter in the story of *The Great* *Unraveling*—the chapter titled *Nature Bats Last.* All this, unless we change radically and rapidly.

Most frightening, all this could come relatively soon. No one knows for sure how long we might have. But scientists tell us that with all the accelerating trends, and the various feedback loops interacting unpredictably, this scenario could possibly play out in this century. Some say even within a few decades. This could be our grandchildren's future. *We cannot let this happen!*

As we open our eyes to the real possibility of this horrific scenario—another powerful impulse also arises into awareness. *We see that it doesn't have to be this way.* We see that there is still hope. We realize that the future is not settled yet. We see the light of another possible path.

Since ours is the first generation to see this comprehensive vision of our world's dangerous situation, *we are the ones who must rise to the challenge and act— decisively and quickly*. We are the ones who must find the needed solutions, change our collective course, and ensure a healthy future for humanity and the planet. What greater purpose could we contribute to, what greater mission could we be part of?

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This is an emergency, and for emergency situations we need emergency action.

-UN Secretary General Ban Ki-Moon (referring to the climate crisis)

An emergency, by definition, is a dangerous situation demanding immediate action. It's a grave threat that forces a decisive turning point, a situation where everything depends on the outcome of the action taken. That describes exactly our global climate situation—except the serious consequences are growing over time, instead of happening all at once.

Growing numbers of experts and leaders have said that our escalating climate crisis now constitutes an authentic planetary emergency. These include top climate scientist James Hansen, UN secretary general Ban Ki-Moon, environmental leaders Al Gore and Bill McKibben, Senators Barbara Boxer and Bernie Sanders, and many others. They all say, "This is a planetary emergency."

It is vital to admit, and declare the emergency worldwide—not to scare or panic people—but to be authentic, to let everyone know the threat is real, immense, and pressing, and the time is short. We are in a race against time where we determine the future for all generations to come. We need to create the appropriate level of public urgency and collective concern, so we can mobilize effectively and implement real emergency solutions. We need to act responsibly and decisively—not in a frenzy, but in coordinated, effective action, focused where it makes the biggest difference.

It's time to get real. Let us move past denial, sugar-coating, and pretending things are OK. Let us treat the climate crisis like the emergency that it is. Let us respond powerfully, and take bold and rapid action. Let us all as individuals, organizations, and nations—wake up from our deep cultural sleep of ignorance and denial, and admit the serious state of the world. *Let us accept the reality that, collectively, we face a great global climate emergency*. Let us agree that we urgently need a massive emergency response.

Let us work together toward a radical change of our consciousness, culture, and ways of living on this earth—especially cutting our carbon emissions. Let us come together, and quickly find ways to solve our most pressing problems. Let us align on a new sustainable path forward, and begin immediately.

But how?

Inquire:

What can I do to understand and help solve the collective crises we face?

How can I share this critical understanding with others?

In small or large actions, what can I do to serve in the evolution of consciousness and culture? Specifically, how?

It's 3:23 in the morning and I'm awake because my great great grandchildren won't let me sleep my great great grandchildren ask me in dreams what did you do while the planet was plundered? what did you do when the earth was unraveling? surely you did something when the seasons started failing? as the mammals, reptiles, birds were all dying? did you fill the streets with protest when democracy was stolen? what did you do once you knew?

-Drew Dellinger, American poet, excerpt from *hieroglyphic* stairway, in Love Letter to the Milky Way