



Act Now: Future Scenarios and the Case for Equitable Climate Action

By **Gabriel Kasper, Justin Marcoux, and Jen Holk**
with Alegria Ruseler-Smith, Mario Zapata Encinas, and Vivek Mukherjee

**Monitor
Institute**

by Deloitte

Contents

Introduction	1
Understanding climate action & climate equity	3
Orienting your organization in the right direction	7
Worldviews	7
Baseline assumptions	9
The scenarios	12
An overview of the scenarios	14
Scenario 1: Technocrats save the world—or do they?	15
Scenario 2: The perils of business-as-usual	17
Scenario 3: Equity advances, washed away	19
Scenario 4: Climate action adds up	21
Key takeaways	23
Committing to action	23
Taking action	25
What all this could mean for you	27
Conclusion	30

With profound thanks to Amna Qamar, Manan Mehta, and Laryssa Lapointe for their indispensable contributions to the development of this report.

We would also like to thank our special advisors: Blythe Aronowitz, Kwasi Mitchell, Lisa Newman-Wise, Dana O'Donovan, and Derek Pankratz, who were critical thought partners throughout our work.

And we would like to express our lasting gratitude to the many others within Deloitte who have enabled and advanced this work, including Dr. Elizabeth Baca, Christina Brodzik, Scott Corwin, Sally D'Amato, Asif Dhar, Kate Hardin, Sheryl Jacobson, Nicole Kelm, Stanley Porter, Marla Pourrabbani, Jon Raphael, Dhash Samaranayake, Susanna Samet, Kristen Sullivan, Geoff Tuff, Crystal Upperman, and Steven Ward.

Finally, we'd like to offer our deepest appreciation to the many field leaders who helped to guide and influence our thinking in this work.

“What does it feel like to live on the brink of a vast historical change? **It feels like now.**”

—Kim Stanley Robinson

The implications of the science around climate change are alarmingly clear. The link between greenhouse gases and climate change is now well established, and scientists are gaining a greater understanding of what the Earth might look like if it were to warm by 1.5°C, 2°C, or more. A growing number of people now recognize that addressing climate change is critical.

What we do—or don’t do—individually and collectively over the next decade will shape the future trajectory of our climate and our world. Those decisions, that leaders like you will make, affect not only you and your organization, but also children, families, and communities near and far.

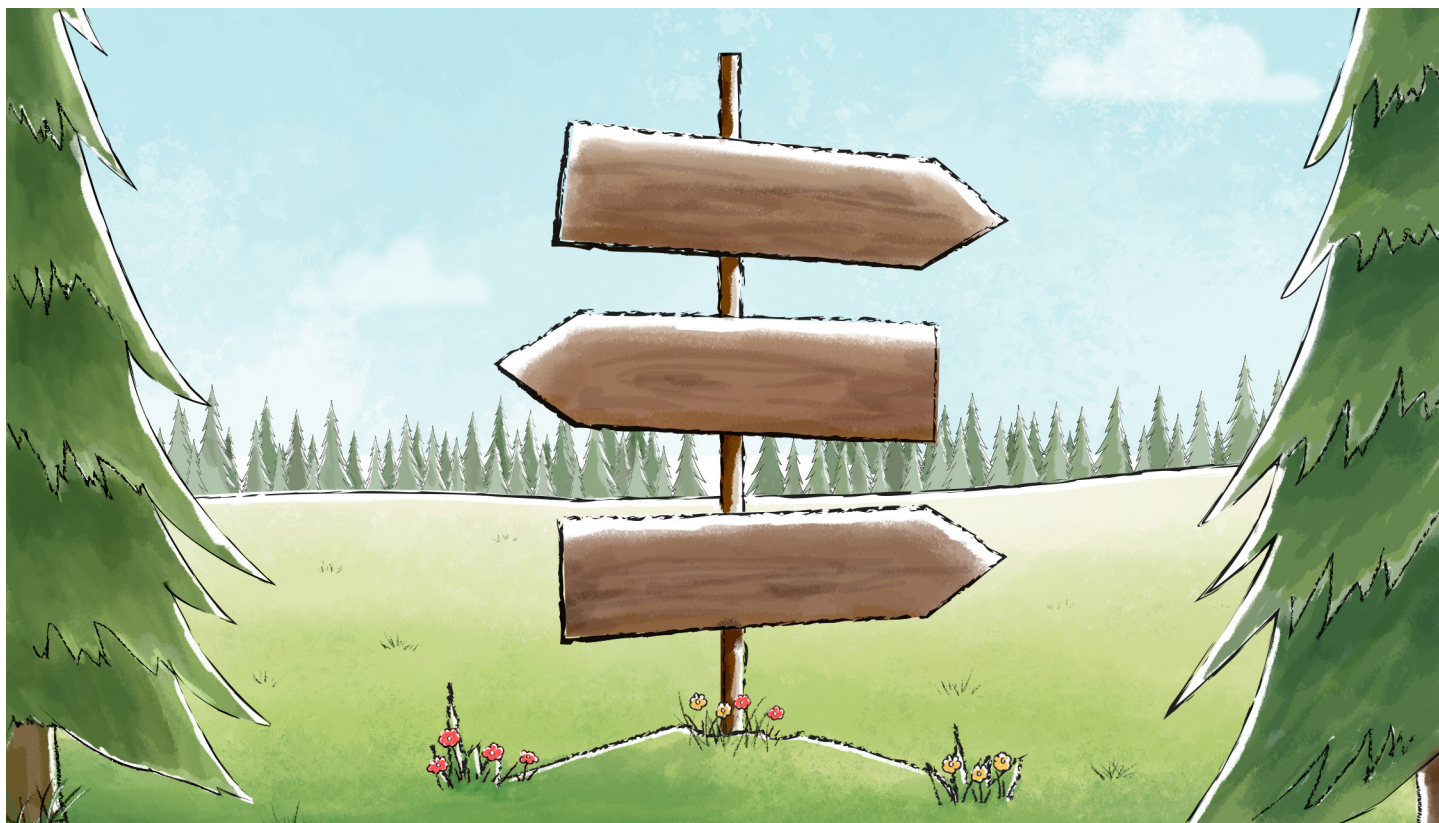
After all, many places are already facing extreme heat, severe droughts, and rising sea levels that threaten to inundate communities and displace millions. And while climate change poses a threat to everyone, low-income and historically marginalized groups¹ often face a disproportionate climate risk. Further, institutional responses to climate change may ignore or unintentionally worsen some of these effects.

And climate change isn’t happening in isolation. It’s unfolding against a backdrop of complex forces that make the right course of action difficult to chart. Even as the climate science is increasingly understood, factors like growing political polarization and geopolitical risk, unstable economic conditions, advancements in technology, and grassroots social movements are harder to predict. How these factors intersect and interact with climate change makes it difficult for even the most knowledgeable leaders to make choices today that will help them navigate the massive uncertainties of the future.

To help leaders confront these challenges, Monitor Institute by Deloitte—the social impact strategy unit of the Deloitte Purpose Office—engaged a diverse group of more than 100 public, private, and social sector leaders from across the globe to explore their perspectives on the future of climate action and its interrelation with equity. We spoke with scientists, economists, activists, doctors, business leaders, and more to build a broad mosaic of perspectives about what is happening. Drawing on those insights and a deep scan of existing research, this report aims to help leaders across sectors understand the range of divergent futures that could transpire over the next decade and consider how they can take more robust and equitable climate action today.

Because while no one can *control* the way the future plays out, leaders like you are best positioned to *influence* it, even if climate change isn’t your core focus. Make no mistake, addressing climate change will require everyone to take action. And our cumulative choices along two dimensions—the *scale* at which we act to address climate change, and how *fairly* we do it—will have an outsized impact on how the coming years unfold.

This report is designed to help better prepare you and your organization for the “vast historical change” ahead. Our aim is to build on the work of the many experts who have been in this space for decades to create an accessible guide for those who recognize that climate change and equity are important but may not have the time, expertise, or knowledge to fully unpack them on their own.



In the sections that follow, we aim to help you:

UNDERSTAND and gain a baseline sense of the importance and current state of climate action and climate equity.

ORIENT yourself to the range of different “worldviews” driving action—or inaction—on climate, as well as the baseline assumptions that we all need to get our arms around to be able to make wise decisions in the coming decade.

EXPLORE a set of four plausible yet provocative hypothetical future scenarios for the next decade that can help your organization grasp and prepare for divergent futures.

ACT with an understanding of what steps you can take today to guide your organization amid uncertainty.

We recognize that this is a lot to pack into a report. So we have attempted to cover a range of key topics here by making them easy to either skim or dive into, depending on your needs and your familiarity with climate change and climate equity. The *Understand* section of this report, for example, is aimed at helping those less familiar with climate change and climate equity get up to speed before moving into the scenarios and their implications for action. If your day-to-day work focuses on climate and sustainability, you should feel free to just skim this content or skip ahead to the *Orient* section of the report (page 7).

Understanding climate action & climate equity

Many leaders know that climate change is one of the most important issues of the 21st century. But the constant flow of new findings and reports can make it hard to take stock of exactly where we are. And attempting to summarize the diligent work of committed climate leaders and experts would take volumes.

Below, we detail four key points about the current state of climate action and climate equity that can serve as critical level-setting for leaders across sectors, as you prepare to take action in the coming decade.

At a glance:

What you need to know

- 1 The next decade of climate action is pivotal in shaping the trajectory of our shared climate future.
- 2 While climate change is a serious threat and much more needs to be done, there are still reasons for optimism.
- 3 The effects of climate change are unequal and will likely exacerbate existing inequities to a devastating degree.
- 4 Pursuing climate action that ignores issues of fairness and equity is a fragile strategy, which may not be durable over time.

Why the next 10 years are so important

The next decade of climate action is critical. But, as a number of our interviewees noted, the “next decade” has been critical for at least 30 years. So organizational leaders looking to push for bolder climate action are often met with some confusion or even hesitancy about just how important the next decade *really* is.

And it's also critical to recognize that with climate change, many decisions that people make today don't manifest immediately but bake in consequences for future decades. In other words, more emissions today may not create problems by 2030 but will likely result in a bleaker 2050.

As it stands, progress on efforts to address climate change has been real but incomplete. Had greater climate action occurred over the past decades, there would be a larger “climate buffer” today that would allow for more degrees of freedom on climate action. To meet the goals of the Paris Climate Accords to limit global warming “to well

below 2°C,” an unprecedented level of climate action needs to occur over the next decade.² Most notably, global emissions would need to peak before 2025 and then fall by 43% by 2030, with large increases in renewable energy generation, trillions more dollars in climate financing, and more protections for forests and other natural carbon solutions.³

Milestones like these are a stretch, but they're not impossible. They could be achievable with significant and decisive climate action, and such actions would benefit humanity in almost every way imaginable. Economically, bolder climate action is estimated to bring tens of trillions of dollars alongside millions of net new jobs globally in areas like energy production, vehicles, and energy efficient buildings.⁴ Beyond economic measures, estimates suggest that stronger climate action can avoid more than 100 million premature deaths, improve health outcomes globally, and preserve a more habitable ecosystem for future generations.⁵ This isn't to ignore the very real friction and risks in transitioning to a less carbon-intensive future, but by almost every measure, the benefits of transition far exceed the costs.

However, if meaningful climate action stalls, other, less hopeful futures are also possible, perhaps even probable. Climate change is hitting the point where we don't have any more decades to delay. There is a shrinking window to quickly implement climate solutions and reap the social, health, and economic benefits of meeting the goals of the Paris Climate Accords. If the next decade is one of stagnation and delay, it becomes much harder to tell an optimistic story.

What does that mean? It means climate change isn't an issue that leading organizations will be able to sit out over the coming decade.

Why there is hope

While significantly more climate action is needed, there is real momentum to build on.

Nearly 200 countries joined the landmark Paris Agreement, and more than 70 countries—including the United States, China, India, and the EU—have targets in place to reach net-zero carbon emissions.⁶ Additional global agreements on issues like methane and deforestation have progressed in recent years.⁷ Wealthier economies are already reducing carbon emissions—US emissions, for example, have dropped 21% from their peak in 2007, and emissions across the EU have fallen 34% since 1990.⁸ This progress is bolstered by a growing number of policy packages and legislative changes that are incentivizing the transition to renewable energy and green job creation. And countries at COP27 established a fund for *loss and damage* to aid global adaptation to climate impacts, signifying an important step forward in supporting communities in preparing for future damages.⁹

In addition to public action, technological advances, private-sector action, and philanthropy have added to the progress. Solar, wind, and battery prices have plummeted faster than expected, falling nearly 90% in the case of solar over the past decade, and rapid advances in other renewable energy and storage systems continue apace.¹⁰ Private-sector groups have formed in areas such as jet fuel, shipping, and carbon capture looking to reduce, capture, or offset carbon.¹¹ Philanthropic funding for climate change is at record highs, which is supporting a wide range of civil society organizations working to drive climate action.¹² And finally, public sentiment on the need to address climate change is trending in a positive direction, as more people around the globe see climate change as a major threat.¹³

*All of this progress is flawed, caveat-ridden, and not enough on its own. But it is happening. And some of the bleakest projections for warming now seem far less likely because of these efforts.*¹⁴

Why the effects of climate change are unequal

Climate change, and how we respond to it, are inextricably linked to issues of fairness and equity. While climate change affects everyone, it disproportionately impacts low-income and historically marginalized groups. As Tulaine Montgomery, co-CEO of New Profit has explained in the past, “We’re all facing the same storm, but we’re not all in the same boat. Some of us are in duct-taped rafts and others are in reinforced cruiser ships and there’s really no comparing the vessels.”

Defining climate equity

There are a variety of definitions of “climate equity” from organizations, communities, and governments across the globe. Equity and inequity describe relative outcomes between groups of people. While some think of equity in terms of economic disparities, others think of them in terms of gender, race, or other characteristics. However, most definitions have at least two elements in common.¹⁵

Climate equity encompasses *distributive* impacts: who bears the brunt of the consequences of climate change, and who reaps the most benefit from climate action. For instance, a world in which low-income communities face the worst of climate events while wealthy people benefit from low-cost solar power and electric vehicles would have a compounding, highly inequitable distribution of benefit and burden.

Climate equity also includes *participatory* decision-making: who designs climate solutions, who decides which ones to pursue, and who is funded to carry out the work. Equitable participation might include designing climate solutions with the people and communities most affected by climate change, engaging community advisory groups to participate in decision-making, and funding local leaders to execute the work.



Research shows that, in general, low-income and historically marginalized groups are more likely to be impacted by climate hazards, face greater harm when climate hazards occur, and have access to fewer resources required to rebuild and prepare for future events.¹⁶ For people living in low-income countries that have contributed very little to greenhouse gas emissions, it's particularly brutal and unfair. These countries face a disproportionate burden of climate change when it comes to issues like projected health impacts, economic growth, displacement, coastal flooding, and risk of food shortages, among others.

What's more, climate change doesn't just create new inequities, it amplifies existing ones. As climate equity leader Dr. Adrienne Hollis put it, "Climate change exacerbates every issue that marginalized communities now face."

Even organizations that don't focus on climate per se will see the impacts.¹⁷ This amplification could erase the gains of many governments, businesses, and nonprofit organizations that have worked for decades to increase economic opportunity. And as shown below, this pattern repeats itself across a variety of issues. From gender equity to racial equity to health equity—the negative impacts of climate change have the potential to overwhelm the gains of current equity efforts.¹⁸

Organizations working toward more equitable outcomes—no matter what those outcomes are—should understand that climate change will be a major headwind in the coming years.

Dimension of social equity	Example of how climate change worsens different dimensions of social equity
Disability rights	Environmentally driven supply chain shortages for day-to-day necessities as well as for assistive technology are more likely to harm disabled individuals, especially those who live in marginalized communities, who rely on public health and emergency health care services. ¹⁹
Economic equity	Climate change stands to drive 68 million to 135 million people globally into poverty by 2030 potentially erasing gains from many existing anti-poverty efforts. Those currently facing economic uncertainty are most likely to feel those effects, due to systemic underinvestment in climate adaptation in their communities, lower access to education, and fewer high-earning and/or climate-buffered job opportunities, among other factors. ²⁰
Gender equity	Because of structural barriers to resources and information—for instance, lower literacy rates globally and fewer leadership roles outside of the home—women are less likely to survive climate-related natural disasters because they don't have the same access to information on how to respond when crises occur. Furthermore, given their disproportionate likelihood to be below the poverty level, women stand to make up 80% of people displaced by climate change. ²¹
Health equity	Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, disproportionately affecting low-income areas with weak health infrastructure where access to medical professionals, facilities, and health education are significantly lower. Further, the World Health Organization estimates that 99% of the disease burden from climate change occurs in low-income countries, 88% of which occurs in children under five years of age. ²²
Indigenous rights	Climate change can destroy previously balanced ecosystems that indigenous groups have inhabited for millennia. This is already occurring in places like the Himalayas, the Arctic region, and the Amazon. ²³ This ecosystem destruction will likely result in disproportionate displacement for Indigenous communities around the globe.
Intergenerational equity	A child born in the United States today will experience 35 times more life-threatening extreme heat events than one born about 60 years ago. ²⁴
Racial and ethnic equity	Because of structural barriers to housing in the United States—for instance, historical redlining and segregation, Black and African American individuals are 40% more likely to live in areas with the highest projected increases in extreme temperature-related deaths and more likely to live with industrial pollution, which can worsen climate-induced health effects. ²⁵
Refugee and migrant rights	Climate change is expected to force between 25 million and 1 billion people to migrate from their homes by 2050, with 90% of migrants coming from the most vulnerable countries that have the fewest resources to adapt to climate change. ²⁶

Why fairness and equity are important parts of climate action

Reducing inequities is naturally a key component of climate equity. But equitable climate action isn't just about mitigating harm. Leaders from historically overlooked groups can bring unique perspectives and powerful climate solutions. As Julius Tapper, head of Inclusive Innovation & Equity-Centered Design at Doblin, notes, "There's an element to equity work that is looking to mitigate historical and current injustices. That's a critical but incomplete frame. There is also a growing awareness that in order to do new things, to really innovate, you need to include and seek to understand people and ideas that you haven't before." More diverse representation from a variety of identity groups can help organizations unlock innovative solutions that lead to stronger climate action.

In addition to broadening the set of potential solutions, funding and supporting frontline leaders can also lead to stronger support for climate action. Top-down, technocratic climate proposals can only go so far without the support of broad coalitions. And many different coalitions are forming to push for bolder climate action. For example, unions and other groups advocating for low- and middle-income workers are supporting climate projects like renewable energy, carbon capture technology, nuclear power generation, and hydrogen fuels because they are seen as green-job engines.²⁷ Environmental justice leaders in the United States are organizing residents and helping to secure funds to clean up polluted areas and help them advance into a lower-carbon future.²⁸ When these kinds of groups come together to support broader climate action, it can lead to durable progress that is hard to undo.

However, the opposite is also true. By ignoring issues of fairness and equity, climate progress is more fragile. For example, many low- and middle-income countries are currently forced to make a difficult choice of balancing carbon-intensive economic development with making progress to avoid the worst effects of climate change. In the Democratic Republic of Congo, leaders initially endorsed a plan to conserve parts of the country's rainforests to maintain them as sinks²⁹ for large amounts of carbon, but later chose to prioritize developing fossil fuel reserves in the forests, with the goal of stimulating economic growth and funding anti-poverty measures. As the country's lead representative on climate issues explained, "Programs to reduce poverty, programs to bolster economic growth—that's our priority. Our priority is not to save the planet."³⁰

Without adequate funding for green projects and without sufficient response when climate disasters do strike, low-income countries with fast-growing economies are put in a near-impossible situation. So it's not surprising that, when put in those difficult circumstances, some choose to deprioritize climate action in favor of near-term economic development and poverty alleviation. Globally, to get to a world with more climate action, wealthier countries have a role to play in supporting low- and middle-income ones to help them prepare for, and manage, the difficult times ahead. Awareness of this reality is building, and the recent "loss and damage" fund established at COP27 is an example of this support.

In wealthier nations, low-income and historically marginalized communities haven't seen the same benefit that wealthier communities have from low-carbon technology like electric vehicles and solar energy.³¹ Some climate equity advocates we interviewed shared that asking low-income residents to support low-carbon technology while only wealthy residents see direct benefits is a hard argument to make. These advocates also noted that carbon-intensive legacy industries are elevating the visibility of these kinds of unequal benefits and even "co-opting" them to stall important climate action.

Beyond distribution of benefits, inequitable processes can also stall climate action. Researchers have found that when clean energy projects fail to be implemented, the primary reason is a top-down process that lacks community engagement and support.³²

Organizations that want to address climate change without considering fairness and equity are likely missing out on important ideas and risk building their climate efforts on a shaky foundation.

Making sense of climate equity

Climate action and equity can be either a vicious or virtuous circle. By underplaying or ignoring climate equity, the effects of climate change will be unequally distributed and support for climate action may not be as strong as it could be. But climate action and equity can also positively reinforce one another. As Dr. Jonathan Foley, CEO of Project Drawdown, notes, "Climate change, the *problem*, makes inequity and injustice worse. But equity and justice can improve with climate *solutions*. We have the potential to have more jobs, more health, more security, and more justice if we implement climate solutions with people in mind and do this the right way."

And for organizations deciding on their climate strategies and climate action plans, there are many "two-fers"—solutions that can improve climate and equity simultaneously—to consider supporting. For example, Project Drawdown recently catalogued [28 climate solutions](#) that simultaneously improve the well-being of people living in extreme poverty while also addressing climate change. As the authors of the report note, "The world should not have to choose among human development, poverty eradication, climate mitigation, and climate adaptation; win-win solutions are at hand."³³

Orienting your organization in the right direction

While there is no longer any scientific dispute about whether we are changing the climate, there is a great deal of debate about how we should respond to it over the coming decade. Even among those committed to taking action, there are a wide range of divergent belief systems—or *worldviews*—that shape and color the way people approach the issues.

Worldviews

We all know that most people don't approach issues in a perfectly "rational" way. Accessing all available information, carefully and dispassionately weighing the facts, and arriving at an unbiased course of action is a tall ask. This is especially true for topics like climate change and climate equity, which can be confusing, overwhelming, politically charged, or uncomfortable to address for some. More often, people start from an existing belief system—or *worldview*—and gravitate toward information and solutions that align with that overarching perspective. Our work has identified several predominant worldviews about climate action and climate equity.

These kinds of worldviews are particularly useful as prisms to help us gain perspective on the way climate change is viewed today

and to understand people's attitudes and actions over the course of the next decade. Each worldview sees climate change and the subsequent implications for equity through a different lens. A "Techno-optimist," for example, might want to focus on funding moonshot technologies and innovation, while someone with a "Green Mobilization" worldview would prefer to support grassroots community organizing and coalition building.

It's important to note that these worldviews are not mutually exclusive. Many people may hold a combination of several different views simultaneously. The set of worldviews outlined here aren't exhaustive of all belief systems that exist and may not be equally "correct" based on the facts, but they each appear to be held in earnest by leaders across a variety of organizations.

It's also worth noting that the list includes several worldviews—Climate Minimizers, Climate Doomists, and Climate Denialists—that, based on our research and conversations, are unproductive or not anchored in an accurate understanding of the science and realities of the climate crisis. They are, however, perspectives that sizable groups of people have gravitated toward. Rather than ignoring them, it's important to recognize that you will likely interact with these points of view in your work.



While these worldviews may not be a perfect or complete list of all belief systems that exist, they can serve as a valuable starting point. By understanding the different perspectives present within your team, organization, or network of partners, leaders can gain a better sense of how to approach, discuss, and begin to act on climate change and climate equity.

Worldview	What someone with this worldview believes
 Carbon Essentialists	Given the climate emergency we face, the only thing that really matters is decreasing carbon emissions as quickly as possible; everything else (including equity) is secondary.
 Climate Compliance	It is unreasonable to expect organizations, let alone individuals, to make sense of climate action so, instead, governments should enact appropriate climate regulations that people and organizations comply with.
 Climate & Equity	We should focus on addressing climate change and advancing equity at the same time and focus mainly on solutions that do both.
 Climate Pragmatists	While climate change is real and we should take action, our responses need to take into account many other countervailing pressures—economic growth, national security, and individual preferences to name a few.
 Global Cooperators	Coordinated, intergovernmental action is the most important lever to pull in addressing climate change at the scale required and to ensure each country is doing its fair share.
 Green Mobilization	Mass mobilization and coalition building are the primary ways to build long-term support for climate solutions; without that broad base of support, our collective actions will never be sustainable or meet the scale of the challenge.
 Limits to Growth	Climate change is one symptom of unsustainable production and economic systems that seek infinite growth on a planet with finite resources.
 Techno-optimists	The key to fighting climate change is to develop technologies counteracting climate impacts that are significantly better, faster, and cheaper than today's alternatives such that those solutions can outcompete carbon-intensive processes.
 Climate Minimizers	Concerns about climate change are overdramatic. Humanity has found ways to adapt to other crises we've faced in the past and will find ways to adjust to climate change as well.
 Climate Deniers	Climate change isn't happening at all, or, if it is, it's driven by natural weather and climate patterns and isn't something we can control.
 Climate Doomists	Given the scale and severity of climate change—and the baked-in nature of many existing climate impacts—climate change is too far along or too massive of an undertaking to successfully tackle.

Baseline assumptions

While there are many different perspectives and belief systems that underlie how people look at climate and equity, there are nevertheless a handful of critical “truths” that all organizations will need to begin to reckon with in order to make smart choices in the midst of great uncertainty.

Our research identified a set of 10 baseline assumptions that we do have a good degree of certainty about. Together, they form the essential foundation of understanding about what organizations will need to come to terms with—and hold onto—as they move ahead over the next decade. As they play out over the next decade, these 10 assumptions provide important stakes in the ground for what will occur in any future scenario.

By acknowledging a shared reality, being explicit about what to expect in the coming years, and recognizing key uncertainties, leaders can begin to get on their front foot in helping their organizations make smart choices about climate moving forward.

Environment

- 1 The planet is likely on a path to reach at least 1.5°C global warming above pre-industrial levels by 2040, which will have significant consequences.** Average global temperatures reached 1.1°C above 19th century levels in 2020, and all IPCC forecasts—even the most optimistic ones—show a greater-than 50% chance of hitting 1.5°C by 2040.³⁴ Absent a concerted and transformational effort to manage emissions, global warming is likely to intensify beyond the 1.5°C threshold.³⁵ As a result, a range of significant climate consequences are baked in and unavoidable over the coming years—for instance, devastating droughts, fires, hunger, heightened food and water insecurity, geopolitical threats, and more.³⁶ And for certain ecosystems, these changes will be irreversible.³⁷

What is still unclear: the full effect of feedback loops and tipping points.

Positive warming feedback loops—where the impact of the planet warming contributes to further warming—could result in significant increases in temperatures well beyond 1.5°C. These are hard to anticipate and capture in modeling.³⁸
- 2 The climate impacts of the next half degree Celsius of warming will be more severe than those of the preceding half degree increase.** Climate change disruptions are likely to unfold in a nonlinear fashion: A marginal increase in temperature may lead to disproportionately larger increases in specific environmental (and social) impacts and carry more risk of permanent change.³⁹ The past decade of warming simply isn't a good heuristic for the next decade.

What is still unclear: how and where climate impacts will happen.

It's uncertain exactly where and when climate impacts will occur, how severe they will be, and who exactly they will affect.

Social & political

- 3 Humanity will likely face climate change alongside numerous other crises, and it stands to be one of several competing priorities on the global agenda.** Climate disruptions will unfold at the same time as—and even cause or compound—other crises. The “second-order effects” of climate change—for instance, migrants fleeing drought or conflicts arising over water scarcity—will make it harder for climate change to be addressed as a stand-alone issue.

What is still unclear: whether society will experience “fight” or “fatigue.”

People may give into “crisis fatigue” or rise to the challenge with renewed energy and creativity.
- 4 Increased awareness of the climate crisis will likely not be enough to reach alignment on climate action.** Hastening the pace of climate action is not simply an information problem. Instead, greater climate action depends on mobilizing public will by engaging people alongside public- and private-sector organizations to prioritize the issue and by helping people to move past decision fatigue toward meaningful action.

What is still unclear: whether current mobilization and alignment practices will be enough.

Getting people with different worldviews to align on climate action has historically been difficult, and systemic levers will need to be pulled for meaningful emissions reductions to occur.

- 5 Climate impacts will disproportionately affect low-income and historically marginalized groups.** The consequences of climate change will increasingly be inescapable for everyone. However, they will hit low-income and historically marginalized groups *first* and *worst*, widening many of the existing inequities, fissures, and flaws in our systems—from access to employment to exposure to environmental pollutants.⁴⁰ As Vernice Miller-Travis, executive vice president of Metropolitan Group explains, “In many places all over the world, people live in ecologically vulnerable places not because they want to, but because it is the only place they have access to due to current and historical oppressions.” Climate change will also exacerbate many existing health disparities, such as increased asthma rates, exposure to heat, and mental health needs for populations who have the least access to health care resources.⁴¹

What is still unclear: whether enough people will listen and care.

Historically, people have difficulty mobilizing to challenge current practices when most of the consequences are felt by others, not themselves. Significant effort will be required to change entrenched systems, to make space for and listen to input from communities, and for large numbers of people to prioritize climate equity if they are not the ones being most severely impacted.

Economic

- 6 Climate change will increasingly hit economies, businesses, and peoples’ pocketbooks directly; it will be most acute for those that can afford it least.** Climate impacts are likely to affect a wide swath of the economy—global crop yields, supply chains, insurance, and natural resource availability and affordability. Though communities with fewer resources will face the greatest challenges, the effects are expected to change everyday life even for wealthier and historically insulated groups.

What is still unclear: who will pay the costs of climate impacts.

Governments are likely to face continued pressure to help communities. Wealthier countries that historically or currently emit large amounts of carbon are already facing pressure to provide financial support for loss and damage to low- and middle-income countries. And, though “loss and damage” funds now exist, the resultant size and scale of these efforts remains to be seen.⁴²

- 7 Organizations are likely to be under increased pressure to incorporate climate-related issues in their strategies.** Given the scale of the first- and secondhand impacts of climate change, integrating climate action into organizations’ strategies and operations will increasingly become table stakes. For some organizations greater climate action will be a tool to attract talent and build social capital, for others it will be a risk mitigation strategy, for most it will be both.

What is still unclear: whether green initiatives will be performative “greenwashing” or real action.

It remains to be seen whether climate concerns will result in more profound changes in the flow of resources and approaches to work or simply be addressed at a surface level.

- 8 The transition to a low-carbon economy will be complex. It will require upfront investment but stands to produce clear long-term benefits.** Despite steep upfront costs, the transition is expected to generate a net gain of \$43 trillion, and if left unchecked, cost \$178 trillion by 2070.⁴³ While on the whole addressing the climate crisis will have outsized benefits for humanity and the economy, there will be winners and losers in the transition. The hard truth is that some organizations may have stranded assets or potentially need to sunset areas of their businesses in the long term, while others will be able to capitalize on new opportunities. For this transition to occur, powerful individuals and organizations will need to operate in ways that may not necessarily be in their best interest in the short term but will pay off (for everyone) in the long run.

What is still unclear: how the upfront investments will be financed.

Policymakers are looking toward a range of taxes, government debt, carbon fees, global agreements, and private investment to finance the transition and ensure fairness in the benefits and costs. Where we land, and who gets access to that funding, remains an open question.

Technological

9 While widespread adoption remains low, we already have many of the core technologies needed to fight climate change. Scaling existing and novel renewable and other carbon-neutral technologies presents a viable path to meaningful emissions reduction. Notably, renewables like solar and wind are already cheaper energy sources compared to conventional alternatives in several regions.⁴⁴

What is still unclear: how attractive and accessible renewable technologies become relative to alternatives.

Choices about energy consumption aren't made in a vacuum—relative levels of subsidy, how competitive renewables become, and how widespread access and infrastructure for them is compared to higher-emissions counterparts will significantly influence consumer behavior.

10 Technological silver bullets won't solve climate change over the next decade, especially for marginalized populations. Technological advancement is an important component for addressing climate change. However, several of the most commonly discussed technologies (e.g., nuclear fusion, direct air carbon capture) are unlikely to reach scale before major climate-related hardships and permanent ecosystem loss occur,⁴⁵ and a number of interviewees shared that a rapid transition to breakthrough technologies is unlikely to occur over the next decade. Even if advancements occur faster than expected, newer technology solutions are likely to be expensive at first, slowing adoption by middle- and lower-income groups.

What is still unclear: what new, transformative technological solutions may become viable over the long term.

We have yet to see what breakthrough technologies may emerge. However, relying on them to address climate impacts will result in significant costs to ecosystems and societies in the interim.

The scenarios

Even as we gain clarity about some of the critical assumptions about climate change and its consequences, there is much more that remains unknown. Yet leaders across sectors face the task of making plans *today* in the midst of that uncertainty.

Scenario planning is an approach to thinking about the future that is rooted in the recognition that even in the best of times, we can't accurately anticipate what will come ahead.

Scenarios are hypothetical stories about what the future might look like, created through a structured process, that aim to help organizations stretch their thinking, challenge their traditional assumptions, and drive better strategic decision-making. Scenarios aren't about what *will* happen; they're provocative pictures of what *could* happen.

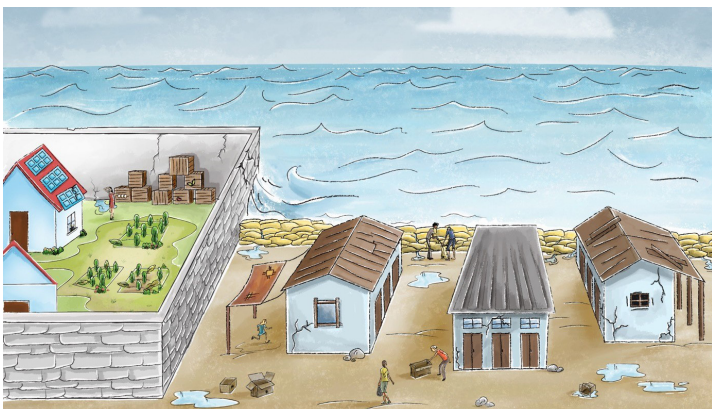
It is important to note that our scenarios here are intended to help leaders understand the interconnections between climate and equity; they are not meant to serve the same purpose as, or to replace, the many science-based and industry-specific projections that plot the possible trajectories of climate change.⁴⁶

It's also worth understanding that even the most optimistic futures painted here present difficult challenges and significant threats. As a result of global emissions to date, there is a great deal of misfortune and suffering that is now baked in and unavoidable, no matter how people respond.

And in the time frame we are considering—reflecting on actions taken this decade and where we could be in 2030—there are not likely to be huge differences yet in how climate disasters and other consequences of climate change play out, although each of the scenarios position us to head in very different directions in the years that follow.

Critical uncertainties

In scenario planning, critical uncertainties are the building blocks for creating potential futures. Think of them as a continuum of possible outcomes (normally visualized as an axis). And by labeling both ends of the axis, we should be able to imagine both end points being plausible. To envision the scenarios in this report, our team focused on two particular uncertainties: **the scale of climate action** and **whose needs we prioritize as we act**. Crossing these uncertainties helps to shed light on how the interplay of climate and equity could shape the decade to come.



The critical axes of uncertainty

Even with so much out of our control, there are ways we can influence how the future will unfold. Looking at futures with greater and less prioritization of climate action and equity can serve as an inspiration—or warning—of what's to come. And while no one can control the future, we hope that these scenarios can help leaders arm themselves with knowledge and imagination to prepare for it.

The relative prioritization of climate action

The choices we collectively make on climate action that determine whether we set ourselves on a path to meet international climate targets and avert the worst impacts of the crisis.



We do what we must

- Many stakeholders across sectors take meaningful action to address climate change
- Actions are significant, coordinated, and robust
- Climate change is a top priority for leaders, companies, and governments

We do what we can

- Many stakeholders take climate actions that are easy or unobtrusive
- Action to address climate change is siloed or deferred
- Progress is piecemeal and doesn't meet the scale of the challenge

The relative prioritization of equitable outcomes

The extent to which we consider and prioritize low-income and historically marginalized individuals, communities, and countries.



For some

- Equity considerations *are not prioritized* in the choices we make
- We don't support those who have the least means and/or are facing the greatest challenges
- Leaders don't adopt a sense of collective responsibility to support others

For all

- Equity considerations *are prioritized* in the choices we make
- We make an intentional, concerted effort to support those facing the greatest challenges
- Leaders, communities, and organizations adopt a sense of collective responsibility to support one another

An overview of the scenarios



Scenario 1:

Technocrats save the world—or do they?



Prompted by increasing public pressure, global leaders across sectors spearhead a successful drive toward decarbonization. But by the end of the decade, it's clear that top-down, technocratic solutions have perpetuated many of the inequities of earlier systems. As communities that are left behind begin to push back, climate progress appears more fragile than many had hoped.

Key drivers of this scenario

- Feeling the direct impacts of climate change, people increasingly look to the experts for solutions.
- Most people and organizations prioritize results on climate, with less concern for fairness and equity.

"If you don't hold equity front and center, it's eventually going to bite you. You won't have the community buy-in and coalitions needed to sustain climate policies over time."

—**Adenike Adeyeye,**
Climate and Clean Energy Equity Fund

"If you lead with climate, there's no guarantee that we'll evolve to be more just."

—**Nathaniel Smith,**
Partnership for Southern Equity

A closer look at Scenario 1: Technocrats save the world—or do they?

Growing concern over climate impacts catalyze a call to action

As natural disasters become more widespread and record-setting heat waves sweep parts of the globe, middle class and affluent communities that had previously been buffered from extreme climate impacts are increasingly alarmed by disasters hitting closer to home (and to their livelihoods). Calls for swift change begin to prompt action from leaders in the public and private spheres as they respond to the disruptions for their constituents, their consumers, and themselves.

Climate activists are hopeful that efforts can be channeled to bolster an inclusive transition as leaders head into the G-20 convening in 2025. The G-20 commits to bold steps on climate, and participating nations state they will institute a range of policies including renewable energy subsidies and greener supply chain requirements. But there's little appetite to risk slowing potential advances by looking at underlying inequities, such as where materials are sourced, who gains and who pays under the new policies, and how low-income workers are treated.

Momentum drives climate action but leaves many behind

One White House staffer is overheard at a local bistro: "This is a crisis. We need to move fast. We don't have time to consult every community in America." Their sentiment rings true, as officials in the United States and Europe move swiftly to advance new policies and regulations that stimulate climate action.

These political leaders focus on results and speed, favoring high-profile strategies that prioritize maximizing carbon reduction over other, more equitable, broad-based, and community-driven solutions. Climate action stays in a narrow lane focused on decarbonization, ignoring issues confronting vulnerable populations, like rising climate-related health disparities.

Still, the "Green Race" is on. As developed nations jockey for climate advantage, corporate leaders across the globe follow suit. They release ambitious climate agendas to take advantage of the market opportunity, aiming to get out ahead of regulation and exploit subsidies. Middle- and high-income consumers and employees increasingly prioritize companies that lead the charge for sustainable business practices and products. Corporations take one of two approaches: initiating plans to be carbon neutral or investing heavily in research and development of new, greener technologies. Governments roll out ambitious clean energy initiatives. Many countries and corporations are vying to lead the way—or at least, to not be left behind—in the new green economy. But less developed economies struggle to keep pace with shifting expectations, increasingly losing out to neighbors with more means to adapt.

Climate progress is made, but gains are fragile

Despite steadily improving climate projections, the media increasingly reports on emerging rifts. Local communities are protesting hydroelectric power plants in Brazil that are drying up rivers previously used for fishing. In the United States, stories begin breaking about the way electric vehicles are being adopted by the affluent while low-income communities continue to pay sky-high gas prices.

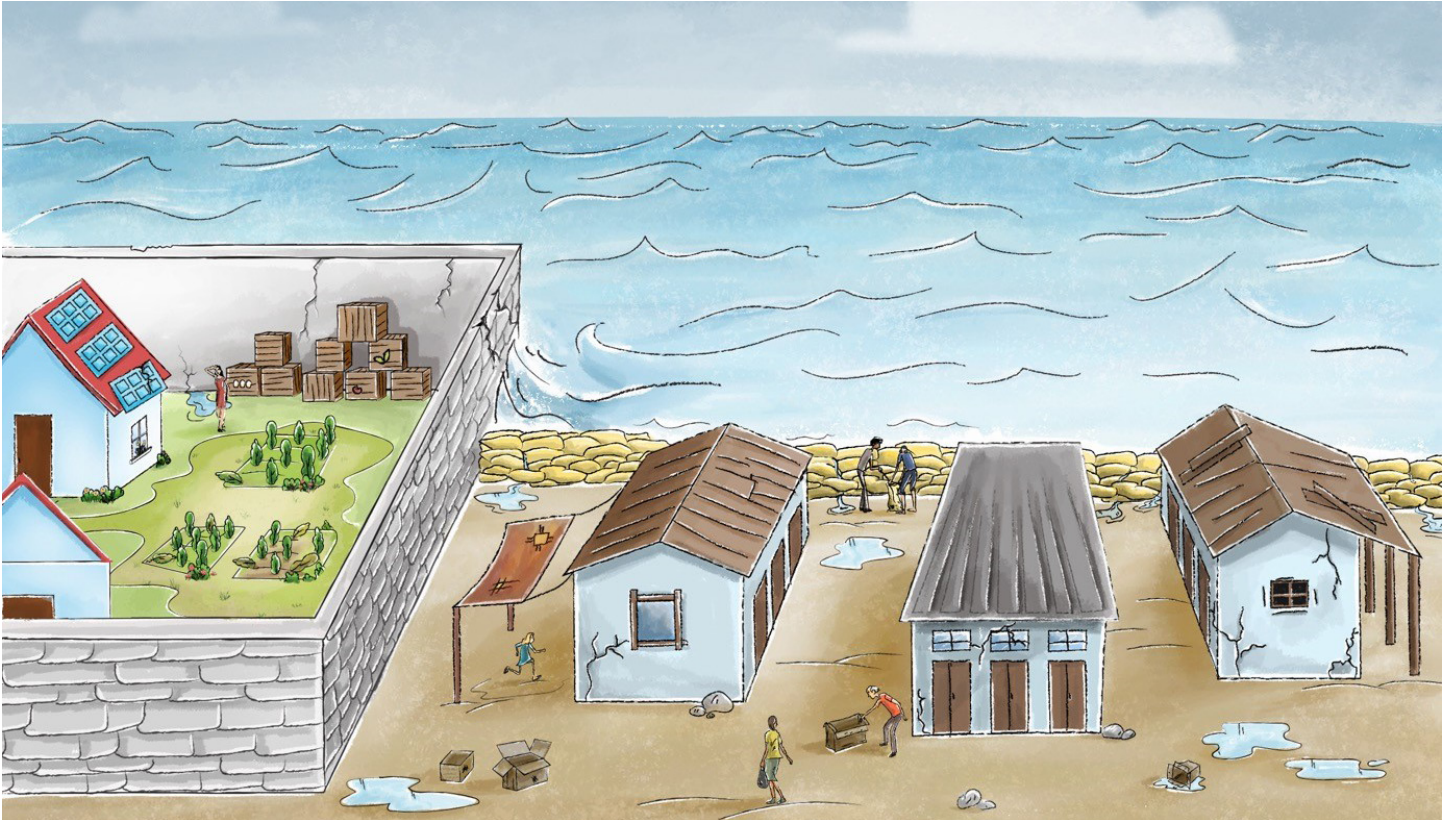
Climate-first policies are yielding real results, but the economic benefits are yet to be widely realized. Political opponents begin to use evidence of the unequal impacts of the greener economy as a way to undercut public support for even demonstrably effective climate policies. This message resonates in communities near and far who have lost legacy industries or now face vastly higher energy and insurance bills despite stagnating wages. In a growing number of pockets around the globe, citizens begin to take their frustrations out at the polls, voting in candidates who promise jobs, not biofuels.

As we approach 2030, we've made immense gains on climate, but equity has largely been an afterthought. One leading global activist poignantly articulates it, "I'm not sure you can get away with trying to save the Earth at the expense of so many of its people."

Looking toward 2050

Continued progress on climate goals is no longer a foregone conclusion. While those who can afford to are profiting from climate investments, vulnerable communities lack the resources and opportunities to partake in the green economy, even as they continue to suffer the consequences of climate disasters. Increasingly, without a diverse and broad-based coalition supporting climate action, the progress of the past decade appears frailer than it once did.

Scenario 2: The perils of business-as-usual



As leaders balance climate action with other priorities, “ordinary” efforts prove insufficient to match the extraordinary scale of the climate crisis. Globally, relative inaction by many wealthy countries, powerful organizations, and recognized leaders creates a downward spiral of further inaction by others. With little hope for significant coordinated action, people focus on protecting their own to weather the worsening storms ahead.

Key drivers of this scenario

- Change at the margins is insufficient to address the climate crisis; as these efforts fall short, insufficiency deters further action.
- In the face of global catastrophe, people focus on self-sufficiency, leaving those with the least resources the most exposed.

“Even as some places make real progress, globally, what we’re doing today won’t lead us where we need to go, and that will be disastrous for the climate and for humanity.”

—Anonymous,
Climate Change Nonprofit

“The fact that it’s big and scary doesn’t mean we should do nothing.”

—Elizabeth Yeampierre,
UPROSE

A closer look at Scenario 2: The perils of business-as-usual

Business as usual rules the day, crowding out attention on climate

Climate impacts are increasingly in the headlines but continue to get pushed below the fold by other issues. In most homes, the deluge of world events and daily strains—civil unrest, family obligations, ongoing health crises—are enough to bump concerns about climate change off the radar. In corporate boardrooms, environmental commitments take a back seat to profits in tough economic times. Partisan gridlock slows any significant political action across democracies. On the international stage, more countries join global climate accords and commit “green” development aid to emerging economies, but without clear mechanisms for enforcement, many are expected to fall far short of their targets.

Leaders in several low- and middle-income countries face growing pressure to reduce poverty and promote economic development. But when their calls for significant aid from wealthy, high carbon-emitting countries are ignored, many adopt plans for more rapid, carbon-intensive development. They emphasize that they can't be expected to unilaterally ignore their own needs—and their national fossil fuel reserves—for the sake of the rest of the world.

Progress on climate action from the 2010s and early 2020s isn't completely left by the wayside though. Green technologies advance, but not nearly at the speed and scale required for widespread adoption. Hopes from earlier in the decade for seamless transitions to electric vehicles are dashed by sluggish adoption rates and spotty infrastructure access. This story repeats itself across industries, as carbon-intensive activities often remain the path of least resistance. Numerous local governments and businesses continue to pursue climate equity initiatives, but the work is piecemeal—and it's not enough.

Inaction, with disastrous consequences

Experts increasingly warn we are falling far short of acting at the scale and speed we must in order to address this crisis. Climate change has become the ultimate global tragedy of the commons, where the incentives to act are diminished by everyone else's relative inaction. By the mid-2020s, political gridlock in the United States stalls most additional environmental regulation and investment in climate solutions. China defangs its carbon-neutrality goals, citing the need to remain economically competitive. Many businesses follow a similar pattern, setting more “realistic” sustainability goals and emphasizing that they can't compete with other firms that aren't taking action. When more than half of the signatories fail to meet their Paris climate commitments in 2029, the resultant news headlines don't even hold attention for 24 hours.

Hopes for coordinated climate action wane, but the impacts of both a changing climate and its social and economic consequences continue to mount for communities around the globe. As droughts persist in Sub-Saharan Africa, for example, UN officials report that women often walk more than seven miles daily to access drinking

water for their families, putting them at greater risk of violence. It's clear that our bleak climate reality does not affect all of us equally: Those with the least means—and the least culpability for the crisis—will end up paying the most.

Communities aim to take care of their own, leaving many behind

Disasters are hitting more regularly. Without clear, unified leadership, many governments retreat to focus on their own individual priorities. While New York City prepares for rising sea levels by doubling down on coastal resiliency projects, regional governments in India pilot agricultural programs to buffer against food shortages. Notably, neither the United States nor India advance on their national climate commitments. At best, people and governments manage to adapt to the changing environment. At worst, they watch lives and livelihoods wither or wash away.

As we approach 2030, the gap between wealthy and low-income, historically marginalized communities has widened significantly. On a global scale, communities with fewer resources are struggling to prepare for extreme weather, food or water scarcity, and public health crises. Meanwhile, those with more resources focus on self-sufficiency from national power grids, levees to protect coasts, and building infrastructure to buffer their homes. The devastating consequences of delaying action on climate and equity are coming into focus, and the picture is bleak.

Looking toward 2050

By putting climate on the back burner, we are facing a disastrous future. We're all facing the same crisis, but there's no denying that some are better equipped than others to navigate the uncharted waters. The most vulnerable among us stand to pay the steepest price. Many people feel our best hope of avoiding catastrophe is a roll of the dice—making a few desperate “big bets” on technological long shots. Other leaders simply do what they can in the face of insurmountable odds, saying, “The best time to plant a tree was 20 years ago. The next best time is now.”

Scenario 3:

Equity advances, washed away



Global inequity is exacerbated as climate disasters disproportionately hit less affluent communities first and worst. As a result, inclusive prosperity and global development rise to the forefront. But when aid falls short, many are forced to prioritize improving basic standards of living through carbon-intensive development. Climate actions focus on disaster relief, inequitable health outcomes, and refugees. By 2030, many equity gains stand to be washed away by insufficient progress on climate.

Key drivers of this scenario

- Our efforts to address climate change are not enough to mitigate its impacts, so people instead figure out ways to adapt to their worsening situation.
- Without outside investment for green development, the push to improve basic standards of living *today* outweigh concerns about long-term climate impacts.

“Climate change is a political problem—a moral problem—not a technical problem. If we ignore that, we’ll be trying to fix the windows on a house with no foundation.”

—**Danielle Deane-Ryan,**
Bezos Earth Fund

“For many emerging economies, despite not contributing to the carbon footprint, if the emitters do nothing, all you can do is adapt.”

—**Anonymous,**
International Development Professional

A closer look at Scenario 3: Equity advances, washed away

The pressure of climate change shines a light on global inequities

Increasingly, disasters are visibly exacerbating existing challenges for the struggling economies of many low- and middle-income countries. As a result, pushes for inclusive prosperity⁴⁷ and global development rise to the forefront.

While many wealthier countries, often those with the largest carbon footprints, pledge to lower emissions and support a green transition around the globe, their actions are limited by polarization and competing priorities. As they fall short on their public commitments, the struggling leaders of low- and middle-income nations find themselves at a loss. They are left with two difficult options: pursue slower development efforts to stay the course with climate commitments or go after rapid economic development by “any means necessary” (e.g., natural resource extraction, sidestepping environmental best practices). Most choose to prioritize immediate needs, hoping that better jobs and infrastructure will increase resilience and position their people to adapt in the face of oncoming climate impacts. As one leader from Central Africa questions, “Why are we expected to remain in poverty and slow our growth, while those who have poisoned the planet prosper?”

Meanwhile, in lower-income communities in wealthy nations, coalitions of community organizers and activists make notable progress in connecting a focus on climate with broader social movements related to inclusive prosperity and racial justice. New coalitions emerge to bring together previously disparate groups like labor unions, immigrants, rural farmers, and Black and Indigenous communities to advocate for green jobs and increased support for climate-affected regions. These coalitions push for equity advances on issues ranging from disaster preparedness infrastructure for historically marginalized groups to workforce development and affordable housing.

Climate and equity intersect, but the immediate crowds out the important

In an attempt to steer equity efforts toward greater climate action, many of the community leaders closest to the inequitable impacts of climate change make the case that climate and equity are inherently linked—you cannot make long-term progress on one without the other. Prominent think tanks and philanthropic foundations amplify this message, attempting to shift the political discourse. But there still isn't sufficient political will to take on the difficult challenges of reducing still-rising levels of global emissions.

The climate solutions that do manage to gain traction increasingly focus on how communities can adapt to and prepare for climate change's disproportionate consequences for vulnerable communities and nations. Scientists criticize what they see as “dangerous short-sightedness,” pointing out that people are addressing the symptoms of climate change, not the root causes. But the message doesn't take hold. And many places find themselves in an unfortunate equilibrium where inaction begets more inaction.

Across the globe, politicians and power brokers increasingly take a realpolitik view when addressing inequity. They view it as a way to maintain allies—and grow markets. Western democracies moderately increase aid and disaster relief assistance, helping low- and middle-income countries adapt to growing climate impacts. China doubles down on its existing development loan programs. Soon, most major powers seem to be vying for influence in Southeast Asia and West Africa through loans, development aid, and climate adaptation support. The investments and aid provide a life raft for many, but do nothing to forestall the rising tide of climate change.

Climate action sits squarely on the back burner

For much of the decade, building broad public support for significant climate change mitigation efforts—along with large-scale public financing—has proven challenging. Communities are laying sea walls rather than trying to stop the sea from rising. Only a few pockets of climate action have really blossomed, in places like California, France, Costa Rica, and New Zealand. And in these areas, climate action has been equitable—from investments in indigenous agricultural practices, to workforce development for green jobs, to community-based disaster relief networks. Blueprints for equitable climate action are emerging, but they haven't gotten close to the widespread, global adoption required to move the needle on climate change.

As we approach 2030, many worry that progress on equity is proving fragile in the absence of significant advances on climate. Activists across the globe find themselves watching years of racial justice, economic development, and community building gains literally washed away by hurricanes, droughts, and heat waves that disproportionately impact under-resourced populations.

Looking toward 2050

It's evident that equity gains will be put at risk without concordant gains on climate change. To support durable equity gains, we desperately need to make up for lost time in addressing climate. Some worry efforts to do so may be too little, too late, but others are hopeful that we can rise to the challenge with empathy, unity, and emerging grassroots solutions.

Scenario 4:

Climate action adds up



Positive momentum on climate change and growing awareness of inequity builds. Despite a lack of significant global policy breakthroughs, actions from regional governments, businesses, and community leaders start to add up, exerting further positive pressure toward collective action. By 2030, we've made significant progress on many fronts—the worst-case scenarios and resultant mass humanitarian crises have been taken off the table.

Key drivers of this scenario

- Sustained efforts by many different stakeholders are enough to drive meaningful progress, even without new, significant global agreements.
- Equitable climate action creates a positive feedback loop for future inclusive efforts.

"Once folks see what's possible, then we can have radical imagination, determination, and faith to make it happen. I have optimism that people can stand up and demand something better."

—**Jacqui Patterson,**
Chisholm Legacy Project

"It's hard to point to significant and progressive societal changes that have not involved social mobilization. Pulling policy levers alone is not enough."

—**Tony Bebbington,**
Ford Foundation

A closer look at Scenario 4: Climate action adds up

Climate progress continues to build

As the tangible consequences of climate change—and their disproportionate impact on communities with fewer resources—become more inescapable, many elements of social and environmental progress from the early 2020s build.

Climate awareness continues to grow as the crisis hits home for everyone, even those who were previously insulated from climate impacts. People everywhere are feeling the effects—directly through flooding, heat waves, and water shortages, and indirectly through supply chain disruptions and massively rising insurance premiums. At the same time, heated protests at several international conferences highlight the growing scale of, and frustration around, global inequity. In the United States, the intersection of race with inequities—resource scarcity, displacement from natural disasters, health outcomes—catalyzes widespread calls to take action around racial equity. Political and business leaders pay attention.

At the same time, green technology advances begin to make clean energy, electric vehicles, biofuels, and plastic substitutes price competitive with more carbon-intensive alternatives. By the middle of the decade, we reach a turning point where clean energy and greener products are more within reach, even for lower-income communities. Many historically low- and middle-income countries take steps to develop and adopt green industries, hoping the shift will bring prosperity and stability to their economies. Globally, companies are increasingly responding to evolving consumer preferences and shifting toward greener, more ethical supply chains and product offerings.

As many historically marginalized communities are hit hardest by the impacts of the climate crisis, awareness of the link between climate and equity builds. Clean energy, health equity, and racial justice rise markedly as voter concerns. The moment lifts numerous vocal climate advocates into office. Nevertheless, gridlock and polarization continue to stall major advances by national governments and weaken efforts to pass most international accords to advance climate and equity. But progress continues around the margins, with smaller policy changes taking shape with support from public, private, and social sector organizations.

Momentum to address climate and equity together takes off

Public awareness and community engagement on climate equity continues to grow over time, especially as communities with more robust climate approaches begin to see results. Local politicians feel pressure to take bolder action, even as national and international progress remains moderate. They sign pledges and enact policies that drive incremental but meaningful progress. A coalition of US midwestern states pass bills to incentivize building wind farms, providing subsidies for green jobs based in low-income communities, and setting new requirements for the use of renewable energy. Meanwhile, bolstered by consumer and employee concerns, a coalition of global CEOs goes a step further and signs pledges

to formalize ambitious equitable climate action plans that target decarbonization by 2050 alongside transition and relocation assistance for their global workforces.

These actions from regional governments, businesses, and community leaders start to add up. Many organizations are embracing change and seizing the opportunity to meet the moment on climate in a way that makes sure everyone reaps the benefits of a green transition. Eventually, momentum begins to seep into larger agreements in certain regions.

For instance, after a very public and highly inclusive deliberative process, the EU passes policy packages that lean heavily on incentives for corporations to provide green jobs with living wages, clean up supply chains, and transition to cleaner energy sources, alongside government-funded workforce development for vulnerable communities. Their commitments go a step further, acknowledging historical injustices in carbon emissions by providing adaptation assistance and development aid for non-member states struggling to manage existing humanitarian crises.

Economists are hopeful that the EU's move, combined with growing consumer and voter demands, will incentivize other high-emissions countries—the United States, China, and India—to do the same. Globally, we arrive at a moment of hope. At a regional conference in Ecuador, one UN official heralds, “Today, one can begin to imagine an economic system that will mitigate the worst of the climate crisis and buffer millions from poverty.”

Progress adds up, even as challenges remain on the horizon

While progress on climate and equity isn't uniform or perfect, it's widespread enough to be meaningful. The scientific community commends these efforts but reiterates warnings that significant baked-in climate impacts will continue to intensify, especially in low-lying and heat-prone regions. Media outlets highlight the dual reality we find ourselves in: “Crisis contained: Worst-case projections off the table, but climate disasters continue.”

As we approach 2030, how we view the climate crisis and our role in addressing it has shifted. Globally there is an understanding that climate is not one group or industry's job; it's everyone's job.

Looking toward 2050

There is more work to be done, especially for communities that will still experience significant climate impacts. However, we are in a much better place. Looking ahead, we are poised to tackle the impacts of the climate crisis as a—somewhat more—united front. The response of the past decade is viewed as a win for global action on climate and equity.

Key takeaways

Looking ahead, climate change will become increasingly inseparable from virtually everything else we do. Its consequences, and our responses to them, will become the inescapable “context” for a larger and larger share of business, social, and political decisions. Whether you’re selling widgets, advocating for racial justice, or planning transportation infrastructure, climate change will affect your work. With that in mind, our work highlights just how closely linked climate action is with equity. As *Scenario 1: Technocrats save the world—or do they?* illustrates, climate gains and support could be eroded if low-income and historically marginalized groups only see climate innovations benefiting wealthy, privileged individuals. Alternatively, *Scenario 3: Equity advances, washed away* emphasizes that progress on equity without considering climate is also fraught. Low-income and historically marginalized groups are at a greater risk of experiencing climate impacts and often lack the resources to prepare for, adapt to, and rebuild after them. In communities around the world, decades of work to improve education, build community engagement, and reduce poverty could be set back by a single climate disaster.

In other words, **climate action without consideration of equity is fragile, and prioritizing equity without climate action risks watching gains literally wash away.** Inaction on either one has the potential to dramatically undercut progress on the other. But the good news is that progress on climate change and climate equity together

can create a virtuous cycle, unlocking greater gains for each. Getting there, however, requires intentionality, and that starts with committing to a better future.

Committing to action

Each of the futures described in this report are possible, but none is inevitable. While there are many factors outside any one individual’s or organization’s control, there are also meaningful steps you can take to move toward a better, “preferred” future.

In this context, *Scenario 4: Climate action adds up* is that preferred future. That isn’t to say it’s an ideal or utopian scenario. Our actions up until now have baked in significant climate impacts that will create widespread suffering and loss. But Scenario 4 averts many of the worst effects of climate change and does so in a way that is relatively equitable, reducing burdens for low-income and historically marginalized groups, sharing benefits, and building durable support for climate action.

The recognition that there is a clear preferred future begs the important question: What can organizations do to help move toward a scenario where climate action adds up?



We believe that one of the most important factors in achieving this preferred future is that many different organizations and stakeholders—from grassroots activists and philanthropists to corporate executives and politicians—show real leadership in pursuing equitable climate action. For these efforts to create meaningful progress, decision-makers across organizations cannot be bystanders. By distributing responsibility, equitable climate action becomes not just a moral obligation, but a practical one, as each individual's or organization's efforts (especially those whose core focus isn't climate change) builds additional pressure to reinforce subsequent action by others.

Taking action

The exact actions that an individual organization is positioned to take depend on a variety of factors. Sector, geography, industry, mission, and more all play a role. So, while it's hard to provide an exact road map for every organization, our research does point toward a set of **five critical steps leaders can take**:

1. Take stock

Taking action on climate begins with better understanding how climate change will impact your organization and what actions it might best be positioned to pursue. Consider how climate will alter many different aspects of your work and operations, including:

- **Your assets, facilities, and workforce.** Assess what physical and human assets within your organization are vulnerable or at heightened risk of climate change and how you can protect them. How are your workers, buildings, or other assets exposed to climate impacts, or to second-order consequences of those impacts?
- **Your partners and supply chains.** Consider the people outside your organization that your work touches—customers, suppliers, beneficiaries, partners, community members, and others—and how climate change is likely to affect them. Map out supply and value chains to understand how climate change will impact the critical materials and services involved in your organization's work and how people living in the places you operate may be affected. Think about how climate could influence demand for the work your organization does, as well as the need for new or adjacent areas of work.
- **Your strategy and approach.** Take a step back and revisit your strategies for the coming years. Ask how they might need to be adjusted in light of new needs, complications, or opportunities created by climate change. Understand where advances in technology, new investments, and greater public demands for climate action could shape your organizational responses.
- **Your goals, purpose, and mission.** For many organizations, climate change will become a driving force in decision-making as the decade unfolds—altering what you do, where you operate, and who your stakeholders are. Consider whether your organization may need to adjust its core mission and purpose to remain relevant or competitive.

2. Take a first step

One of the biggest barriers to climate action is the feeling that you need to have everything figured out before taking action. Climate action and climate equity are complex—there's an overwhelming amount of research out there and a fear of getting it wrong. Often overcoming the inertia of inaction is the first step.

Identify and take one action—do one thing—that you know will move equitable climate action forward. It's OK if that one thing is the lowest-hanging fruit. It might be speaking with one supplier about its sustainability practices. Or engaging leaders across your organization to discuss funding for climate equity work. Or pushing to change one piece of local policy. Maybe even speaking with your stakeholders to understand their immediate needs and concerns around climate change. As one philanthropy executive explained, “You have to start somewhere in order to start at all.”

And of course, don't stop there. Once you've taken that first step, take another. And another. As those efforts take root, you can begin to consider a broader, more thoughtful plan of action for your organization.

3. Prioritize equitable outcomes

If we are trying to move toward equitable climate action, focusing on climate alone is not enough. Without deliberate design and effort, new, greener systems will naturally mirror the inequities of existing ones. Improving equity requires intentionality. For any climate action you consider, think about how you can design, fund, do, or build more equitably. Being intentional about how you approach climate action takes time, which given the urgency of the crisis, is not an abundant resource. We recognize this tension. But climate and equity solutions are often not necessarily at odds, and taking some time now to consider your approach and learn from those spearheading equitable solutions will pay off in how successful your actions are in the long run.

If, for instance, an organization needs to retrofit parts of its headquarters because of climate risk, it can also explore whether facilities can be updated sustainably, contribute to local economic growth in the use of subcontractors and vendors, or serve as a community resource in times of crisis. Acknowledging the importance of achieving equitable outcomes in building durable climate solutions—and finding ways to deliberately integrate that goal into your actions—is a critical element in moving toward a preferred future. And, as you prioritize equitable solutions, bear in mind that a bias to action is necessary to address the climate crisis.

4. Join others

Although individual actions add up, it's also true that a single organization can only do so much to advance climate action and climate equity on its own. One challenge for the scale and urgency of climate change is that it requires coordinated, widespread action. To unlock greater benefit, organizations can work together and close regulatory or policy loopholes to create systems that enforce, sustain, and support equitable climate work.

As you do so, don't feel like you always need to be the leader or the initiator. There are a wide range of collaborative efforts that already exist that you can plug into. Look at what organizational partners are already doing, consult with industry or sectoral associations, or join a regional collaborative to learn how you might work with peers to create impact that is greater than what you could accomplish alone.

5. Map out the boldest play

Imagining your boldest move can help stretch your perception of what is possible. Going “all-in” on equitable climate action will look different for every organization. For some, it may mean moving to fully carbon-neutral operations. For others, it looks like designing climate-resilient infrastructure.

Of course, *committing* to bold action is different from actually mapping the path to get there and implementing it. Even if your organization doesn't move forward with its boldest play, simply opening up your aperture, removing constraints, and imagining more significant action can help spark more innovative and creative ideas. And maybe once you explore them, some of the actions won't seem so unapproachably bold after all.



What all this could mean for you

We recognize that these steps are general and that the real value comes from grounding them and thinking through the nuances of what the answers look like for your individual circumstances. But it isn't possible to provide specific advice for every reader, so to help you begin, we've created a handful of quick, illustrative "personas"—tangible examples of the questions you should be asking yourself within different organizational contexts to get started. Even if you don't fit neatly into one of these personas, we encourage you read through them as you think through your tailored response.

For someone who **HASN'T THOUGHT MUCH ABOUT CLIMATE** before, the imperative is to get started. It's not about becoming a climate expert; it's about being willing to take steps forward amid uncertainty.

Take stock. How is climate change perceived by the people involved in, or benefiting from, your work? How do they stand to be impacted by climate change? At a high level, what risks and opportunities will climate change create for your organization?

Make a move. Could you convene members of your organization to discuss equitable climate action and what role you might play? Could you assess one area of your organization and pilot ways to reduce your emissions?

Prioritize equity. Are the policies and actions your organization supports advocating for the needs of low-income and historically marginalized communities?

Join others. Are there coalitions advancing equitable climate action you can join? Is there an opportunity for you to start building networks of peers to discuss or engage on this issue?

Map out the boldest play. Is there a world in which your organization has no carbon footprint? What unique assets do you have that could help communities near and far adapt to climate impacts? Could or should the mission of your organization be tied to advancing equitable climate action?

A few ways to get started

- Get a better understanding of your direct (Scope 1) and indirect (Scope 2) emissions using one of the many available online estimation tools⁴⁸
- Look at ways to lower emissions and environmental pollutants where you have centers of gravity (i.e., your headquarters, primary warehouses, factories, etc.)
- Screen your vendors and suppliers for their climate and equity practices
- Make a carbon offset purchase and prioritize purchasing offsets from vendors with equitable practices
- Find a network of your peers and start a dialogue
- Support policy and advocacy work advancing equitable climate action
- Support a workforce development program for green jobs in your region that could be a potential talent pipeline for your organization

For a **FOUNDATION LEADER**, it's critical to begin exploring how climate may change the issues and communities that you focus on, as well as how you approach your grantmaking and investments.

Take stock. How might climate change and its consequences alter the needs in your community—as well as your grantees and the issues you care about?

Make a move. Could you set aside funds for equitable climate action? What innovative new solutions or promising technologies could you look to support? Could you support one grantee to further climate equity through their existing social change efforts?

Prioritize equity. How could you change your strategies, the way you assess grant opportunities, or how you choose investment criteria for your endowment to include considerations for climate equity?

Join others. What existing collaboratives or funder networks could you join to start getting involved in climate action?

Map out the boldest play. Could or should your organization's mission change in light of the climate crisis? Should you be spending a greater share of your funds—or even spending down your endowment—to address climate issues?

What it could look like in action

Recognizing climate change as one of the greatest threats to global public health, a leading health foundation realizes that without addressing climate in its work, health equity will worsen dramatically. The funder decides to fundamentally update its mission and strategy to address the impacts of climate change, joining with others to deliberately fund climate and health equity together and intentionally incorporating climate considerations into its funding decisions.

Many funders have added a deliberate “equity lens” to their funding strategies in recent years, acknowledging that equity considerations affect most issues that a foundation might work on. Over the next decade, funders should be prepared to consider adding a “climate lens” to their work as well, as the effects of climate change become more pronounced and the need for climate action becomes inextricably linked to almost any other work a funder might do.

For a **CORPORATE EXECUTIVE**, it's necessary to think through how climate change affects your existing work and how your work impacts climate, and begin preparing for a future where climate change is the backdrop impacting many more of your business decisions. This could range from your business model and mission to where your headquarters are and which supply partners you select.

Take stock. How might climate change shift the needs and wants of your employees, partners, and customers? How could it alter your business operations: where you work, how you work, and the associated risks to your company's supply chain and business model?

Make a move. What is your firm's carbon footprint, and how could you lower it? Could you talk with your supply chain partners about their sustainability goals and practices? How might your overall business model need to adapt to mitigate climate change or to account for disruptions caused by it?

Prioritize equity. How can your company's sustainability efforts be more inclusive of local communities and stakeholders? For any climate action you take, how could you design it in concert with historically marginalized and/or local communities to ensure the actions benefit them?

Join others. What existing industry coalitions focus on equitable climate action? Is there an opportunity for you to convene your peer set to explore industry-specific changes to your supply chain? Could you partner with nonprofits or local government to support equitable climate action?

Map out the boldest play. Could or should you reengineer your value chains to account for your climate goals or the risk climate change poses to your organization? Is there a business case to make your organization carbon neutral? Could you make sustainability and climate equity targets key performance indicators (KPIs) for executives?

What it could look like in action

A prominent corporation that has spent the past several years developing a carbon offset strategy to help counteract its carbon emissions recognizes the opportunity to take more equitable climate action. The company experiments with putting some of its carbon offset budget specifically toward programs designed to train and employ low-income and historically marginalized workers to carry out the on-the-ground work.

Many leading companies are already looking at both climate action and social impact, but often in separate silos. More solutions are emerging that can unlock real climate advances and create meaningful impact in communities at the same time. Companies can start small by taking simple, individual actions that begin to connect these two areas of activity.

For a **DEVELOPMENT PROFESSIONAL** doing governmental, diplomatic, or international NGO work, it's essential to understand how the issues and communities you care about will be impacted by climate change, consider the complex interdependencies and broader geopolitical implications of the climate crisis, and balance the motives of constituents whose interests are not naturally aligned.

Take stock. How will the issues your work touches be impacted by climate change? How will they alter the needs and challenges your stakeholders are facing? What are the second- and third-order effects of climate change that are most likely to disrupt your team's efforts?

Make a move. How could you put equitable climate action on the agenda for your office, alongside existing priorities? Could you advocate for increased funding for climate mitigation and adaptation?

Prioritize equity. How can you provide support to those most at risk for climate impacts? How can you include and elevate community voices in your climate efforts, or consider the equitable outcomes of any climate actions you take?

Join others. Can you convene those you work with to discuss climate and equity? Who would you need to bring to the table? Could you build a new coalition?

Map out the boldest play. What would it look like for climate action to become an explicit priority alongside your other efforts? Should you reallocate funds to address climate and equity, or make an effort to explicitly integrate climate equity considerations into the criteria guiding your decision-making?

What it could look like in action

A global development organization looks to develop its climate action plan by working directly with low-income and historically marginalized groups. The more inclusive planning process ensures that the priorities of these communities are front and center in the new plan, that new efforts incorporate critical local knowledge, and that the benefits and funding streams related to climate action are distributed fairly.

When taking stock of existing work and creating new plans, it's important to remember that a key part of equitable climate action is the participation of those most affected by climate change. Organizations can prioritize equity in how they develop plans, how they fund local communities, and how they hold themselves accountable to communities.

For a **LOCAL COMMUNITY LEADER**, it's important to get a grasp on how climate change and its consequences will impact your community's existing and future needs, and begin preparing ways to support them in weathering the challenges to come and advocating for equitable climate action.

Take stock. In what ways is your community vulnerable to the impacts of climate change? Are there ways in which your community disproportionately contributes to emissions? How could the climate crisis change the priorities of your community? How might it change the needs you are expected to address? What solutions can your community lead?

Make a move. Could you convene to ask community members about their perspective on how climate change will affect them? Could you start or support an information campaign to build awareness of existing community resources?

Prioritize equity. Is the climate work happening in and around your community focused on equitable outcomes? Are low- and middle-income and historically marginalized members of your community engaged in design and decision-making?

Join others. Is there an opportunity to engage with others in your field on the ways in which climate change will impact your work? How can you work across sectors to scale promising solutions?

Map out the boldest play. Is it possible that more—or most—of your efforts should focus on addressing the current and future impacts of climate change for your stakeholders? Do you need additional funding or a separate task force to support your community?

What it could look like in action

Recognizing common goals, community activists in low-income neighborhoods and rural and indigenous areas collaborate with local environmental groups to develop community solar cooperatives. Participants purchase solar panels and co-locate them in shared arrays that offer the community the opportunity to produce and purchase clean energy at discounted prices. This provides local homeowners, renters, and businesses with access to affordable resources and control over their energy production, while also advancing important regional climate goals.

These types of community-based collaborations allow community leaders—often with very different primary agendas—to work together to achieve important shared progress, advocating for climate justice and equitable climate action.

Conclusion

Looking at the decade to come, there are a range of baseline assumptions that leaders can hold onto to understand the severity and trajectory of climate change. These baked-in truths will become evident in a number of predictable ways. But while climate science can help shed light on these effects and their likelihood, there is unfortunately no accompanying scientific process that can predict how governments, institutions, businesses, funders, and nonprofit organizations will respond. Which means grappling with this crisis will require leaders to grapple with uncertainty.

The four hypothetical scenarios described in this report paint a picture of divergent futures—some with devastating outcomes for people and the planet and others where meaningful progress occurs. One of the scariest, and also most hopeful, observations about these scenarios is the possibility and plausibility of each.

It doesn't take much imagination to see how focusing on other challenges such as geopolitical threats, economic insecurity, and political gridlock instead of climate change creates conditions where enough action never materializes over the next decade. Sleepwalking to disaster is a real possibility. But it's also possible to look at the real

momentum on all fronts—continued global agreements and targets, steady technological advancement, and emission reductions in wealthier countries—and see a different path forward. A path where, with intentional consideration of equity and fairness, stronger climate action is within reach.

How organizations like yours prioritize equitable climate action will define the future that emerges. And as the effects of climate change become more prominent, it will be harder for influential organizations to sit things out.

So, as we all face the range of possible futures that could come to pass—some better and some quite scary—it can be helpful to remember the words of Jonas Salk, the inventor of the polio vaccine. He said, “I have had dreams, and I’ve had nightmares. I overcame the nightmares because of my dreams.”

If we can all begin to move toward more equitable climate action today, we still have the time to prevent our nightmares from becoming our reality.



Acknowledgments

We'd like to acknowledge and thank the numerous individuals who provided their time and perspective to help shape this document. The organizations listed next to each respective interviewee reflect the organization they were affiliated with at the time of interview.

External interviewees

Adenike Adeyeye (Climate and Clean Energy Equity Fund)

Manisha Anantharaman (Chatham House)

Robert Armstrong (MIT Energy Initiative)

Allison Ashcroft (Canadian Urban Sustainability Practitioners)

Brooke Barton (Ceres)

Bill Baue (r3.0)

Anthony Bebbington (Ford Foundation)

Tim Brown (Tradewater)

Grover Burthey (PIMCO)

Alejandra Ceja (Panasonic Foundation at Panasonic North America)

Catherine Chien (X, The Moonshot Factory)

Sarah Christiansen (McKnight Foundation)

Susan Clayton (The College of Wooster)

Rachel Cleetus (Union of Concerned Scientists)

Ashlee Cunsolo (Women for Nature)

Dr. Joseph Curtin (Rockefeller Foundation)

Danielle Deane-Ryan (Bezos Earth Fund)

Lois DeBacker (Kresge Foundation)

Chris DeCardy (ClimateWorks Foundation)

Kunda Dixit (Nepali Times)

Edie Farwell (Confluence Philanthropy)

Mary Flannelly (Hewlett Foundation)

Dr. Jonathan Foley (Project Drawdown)

Virginia (Gina) Foote (Conservation Law Foundation)

Katherine Fulton (Independent Consultant)

Justin Galle (California Public Utilities Commission)

Brian Green (Markkula Center for Applied Ethics)

Nate Hagens (Institute for the Study of Energy & Our Future)

Alice Hill (Council on Foreign Relations)

Trevor Hill (Nomura Greentech)

Danielle Hirsch (Both ENDS)

Dr. Adrienne Hollis (National Wildlife Federation)

Holmes Hummel (Stanford University)

Tina Jeffress (Panasonic North America)

Dr. Alessandra Jerolleman (Jacksonville State University)

Giorgos Kallis (Autonomous University of Barcelona)

Molly Kellogg (United Nations Environment Programme)

Heena Khoja (Wayfair, Inc.)

Jean-Baptiste Le Marois (International Energy Agency)

Dr. Bruce Lourie (Ivey Foundation)

Aditi Maheshwari (United Nations)

Jason Mark (Energy Foundation)

Manu Mathai (Azim Premji University)

James Meadowcroft (Carleton University)

Shruti Mehrotra (Open Society Foundations)

Asher Miller (Post Carbon Institute)

Vernice Miller-Travis (Metropolitan Group)

Rudi Navarra (Emerson Collective)

Dr. Johan Nylander (Asian Development Bank)

Dong Ke Oester (The Nature Conservancy)

Yoko Okura (The World Bank)

Jacqueline Patterson (The Chisholm Legacy Project)

Michael Penn (Absolute Strategy Research)

Jonathan Pershing (Hewlett Foundation)

Shawn Reifsteck (ClimateWorks Foundation)

Catherine Rondinaro (The Nature Conservancy)

Dipender Saluja (Capricorn Investment Group)

Devika Shah (Environment Funders Canada)

Parin Shah (Climate and Clean Energy Equity Fund)

Ramya Sivasubramanian (Natural Resources Defense Council)

Nathaniel Smith (Partnership for Southern Equity)

Ade Soekadis (Mercy Corps Indonesia)

Kirsten Stasio (Nevada Clean Energy Fund)

Evan Steiner (One Project)

Eric St-Pierre (Trottier Family Foundation)

Chet Tchozewski (Global Greengrants Fund)

Ralph Thurm (r3.0)

Dr. Vanessa Timmer (OneEarth Living)

Jean-Patrick Toussaint (Trottier Family Foundation)

Noim Uddin (Regional Pacific NDC Hub)

Jeff Werner (Panasonic North America)

Dr. Dan Wicklum (Transition Accelerator)

Jennifer Williams (Live Oak Bank)

Ali Wyne (Eurasia Group)

Elizabeth Yeampierre (Uprose)

David Yeh (CIBC Capital Markets)

Interviewees from Deloitte Touche Tohmatsu Ltd.

Blythe Aronowitz

Dr. Elizabeth Baca

Andrew Blau

Patricia Buckley

Ellen Carter

Scott Corwin

Nicolas de Jenlis

Shay Eliaz

Packy Griffin

Derrick Hiebert

Jenny Hoang

Eamonn Kelly

Allan Ludgate

Tracey McQueary

John Mennel

Kwasi Mitchell

Lisa Newman-Wise

Ben Ninio

Derek Pankratz

John Peto

Susanna Samet

John Sayer

Amy Silverstein

Ian Stewart

Kristen Sullivan

Julius Tapper

Geoff Tuff

Mark Victor

Steve Watkins

All interviewees were given the option to remain anonymous; as such, this list doesn't include all individuals who were interviewed for this project. To those not acknowledged, thank you for your advice and thought partnership.

Related resources from Deloitte

[Energy scenarios in focus: Planning amidst an uncertain future for the energy industry](#)

[2023 global CxO sustainability report](#)

[The turning point: A global summary](#)

[Systems change for a sustainable future](#)

[Climate Change 101 for business leaders](#)

[Climate equity: Discovering the next frontier in outcome measurement in government](#)

[The sustainability business case just got stronger](#)

Endnotes

1. For the purposes of this report, the authors define *historically marginalized as groups that have experienced inequitable outcomes as a result of systemic discrimination. This includes, but is not limited to: Black, Latino/a/x, Indigenous and/or Native American, and other racial minorities, women and female identifying persons, transgender individuals, persons with disabilities, religious or ethnic minorities, LGBTQ+ persons, veterans, immigrants, and low-income individuals and communities. This definition is imperfect and intentionally broad. It reflects an acknowledgment that the impacts of climate change will be widespread and pervasive but that lived experience will differ by group and individual circumstance.*
2. United Nations Climate Change (UNCC), "[Key aspects of the Paris Agreement](#)," accessed November 1, 2022.
3. Priyadarshi R. Shukla et al., [Climate Change 2022: Mitigation of Climate Change](#), Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), 2022, pp. 22–39.
4. Pradeep Philip, Claire Ibrahim, and Cedric Hodges, [The turning point: A global summary](#), Deloitte, May 2022; Network for Greening the Financial System (NGFS), [Scenarios Portal](#), 2021.
5. Drew Shindell et al., "[Quantified, localized health benefits of accelerated carbon dioxide emissions reductions](#)," *Nature Climate Change* 8 (2018): pp. 291–5; World Health Organization (WHO), [COP26 special report on climate change and health: The health argument for climate action](#), October 11, 2021.
6. United Nations (UN), "[Net-zero coalition](#)," accessed April 2023.
7. Global Methane Pledge [homepage](#), accessed April 2023; UNCC, "[COP26: Pivotal progress made on sustainable forest management and conservation](#)," November 10, 2021.
8. US Environmental Protection Agency (EPA), "[Inventory of U.S. greenhouse gas emissions and sinks](#)," last modified April 19, 2023; European Environment Agency (EEA), "[Continued drop in EU's greenhouse gas emissions confirms achievement of 2020 target](#)," last modified February 7, 2023.
9. UNCC, "[COP27 reaches breakthrough agreement on new 'loss and damage' fund for vulnerable countries](#)," press release, November 20, 2022.
10. Kristin Toussaint, "[The price of solar electricity has dropped 89% in 10 years](#)," *Fast Company*, December 9, 2020.
11. Business Aviation Coalition for Sustainable Aviation Fuel [homepage](#), accessed April 2023; World Economic Forum (WEF), "[Getting to zero coalition](#)," accessed April 2023; Frontier, "[An advance market commitment to accelerate carbon removal](#)," accessed April 2023.
12. Helene Desanlis et al., "[Funding trends 2021: Climate change mitigation philanthropy](#)," ClimateWorks Global Intelligence, October 2021.
13. James Bell, [In response to climate change, citizens in advanced economies are willing to alter how they live and work](#), Pew Research Center, September 14, 2021.
14. David Wallace-Wells, "[Beyond catastrophe: A new climate reality is coming into view](#)," *New York Times*, October 26, 2022.
15. Marc Fleurbaey et al., "[Sustainable development and equity](#)," *Climate Change 2014: Mitigation of Climate Change*, Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014, p. 294.
16. S. Nazrul Islam and John Winkel, [Climate change and social inequality](#), UN Department of Economic and Social Affairs, October 2017, p. 2.
17. World Bank, "[Global action urgently needed to halt historic threats to poverty reduction](#)," October 7, 2020.
18. Ibid; United Nations Environment Programme (UNEP), [Women at the frontline of climate change: Gender risks and hopes](#), 2011; Senay Habtezion, "[Gender and climate change: Overview of linkages between gender and climate change](#)," UN Development Programme (UNDP), 2016; EPA, "[EPA report shows disproportionate impacts of climate change on socially vulnerable populations in the United States](#)," press release, September 2, 2021; Christopher W. Tessum et al., "[PM2.5 pollutants disproportionately and systemically affect people of color in the United States](#)," *Science Advances* 7, no. 18 (2021); UN Department of Economic and Social Affairs – Indigenous Peoples, "[Climate change](#)," accessed April 2023; Alex Flavell and Mariam Traore Chazalnoël, [IOM outlook on migration, environment and climate change](#), International Organization for Migration (IOM), 2014; UN News, "[Climate change link to displacement of most vulnerable is clear: UNHCR](#)," April 22, 2021; Aaron S. Bernstein et al., "[Warm season and emergency department visits to U.S. children's hospitals](#)," *National Institute of Environmental Health Sciences* 130, no. 1, (2022); WHO, "[Climate change and health](#)," October 30, 2021.
19. Dr. Elizabeth Baca et al., "[Why climate resilience is key to building the health care organization of the future](#)," Deloitte Insights, April 4, 2022.
20. World Bank, "[Global action urgently needed to halt historic threats to poverty reduction](#)."
21. UNEP, [Women at the frontline of climate change: Gender risks and hopes](#); Habtezion, "[Gender and climate change: Overview of linkages between gender and climate change](#)"; World Bank, "[Female labor force participation](#)," January 9, 2022; World Bank, "[Literacy rate, adult female](#)," accessed October 24, 2022; World Bank, "[Literacy rate, adult male](#)," accessed October 24, 2022.
22. WHO, "[Climate change and health](#)"; Perry E. Sheffield and Philip J. Landrigan, "[Global climate change and children's health: Threats and strategies for prevention](#)," *Environmental Health Perspectives* 119, no. 3 (2011): pp. 291–8.
23. UN – Indigenous Peoples, "[Climate change](#)."

Endnotes

24. Bernstein et al., [“Warm season and emergency department visits to U.S. children’s hospitals.”](#)
25. “EPA, [“EPA report shows disproportionate impacts of climate change on socially vulnerable populations in the United States”](#); Tessum et al., [“PM2.5 pollutants disproportionately and systemically affect people of color in the United States”](#); Jeremy Townsley, Unai Miguel Andres, and Matt Nowlin, [“The lasting impacts of segregation and redlining”](#) SAVI, June 24, 2021.
26. Flavell and Chazalnoël, [IOM outlook on migration, environment and climate change](#); UN News, [“Climate change link to displacement of most vulnerable is clear: UNHCR.”](#)
27. Liz Shuler, [“Shuler: Good union jobs are key to a clean energy future,”](#) AFL-CIO, September 17, 2021.
28. EPA, [“Environmental justice showcase communities by region,”](#) last updated June 28, 2022.
29. A carbon sink is a forest, ocean, or other natural environment that absorbs carbon dioxide from the atmosphere.
30. Ruth Maclean and Dionne Searcey, [“Congo to auction land to oil companies: ‘Our priority is not to save the planet.’”](#) *New York Times*, July 24, 2022.
31. Islam and Winkel, [Climate change and social inequality](#); Mohit Chhabra and Julia de Lamare, [“Rooftop solar in California is ready to take the next step,”](#) NRDC, March 16, 2021.
32. Amanda Sorensen, [“CSUS scholars identify roots of opposition to solar energy projects in Michigan,”](#) Michigan State University College of Agriculture & Natural Resources, Department of Community Sustainability, April 22, 2022.
33. Yusuf Jameel et al., [Climate-poverty connections: Opportunities for synergistic solutions at the intersection of planetary and human well-being](#), Project Drawdown, March 2022.
34. Hoesung Lee et al., [Climate Change 2023: AR6 Synthesis Report](#), main findings of the AR6 Working Group reports and three Special Reports for the Sixth Assessment Report of the IPCC, p. 6, accessed April 4, 2023; June-Yi Lee et al., [“Future global climate: Scenario-based projections and near-term information,”](#) *Climate Change 2021: The Physical Science Basis, Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, 2021, p. 570. Note: All scenarios that keep warming below 2°C incorporate some bioenergy with carbon capture and storage (BECCS).
35. Lee et al., [Climate Change 2023: AR6 Synthesis Report](#), p. 56; IPCC, [“Climate change widespread, rapid, and intensifying,”](#) press release, August 9, 2021.
36. Hans-Otto Pörtner et al., [Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change](#), 2022; Catherine-Lune Grayson, [When rain turns to dust](#), International Committee of the Red Cross (ICRC), 2020; WHO, [“Climate change and health.”](#)
37. [Climate Change 2023: AR6 Synthesis Report](#), p. 53.
38. Robert McSweeney, [“Explainer: Nine ‘tipping points’ that could be triggered by climate change,”](#) *Carbon Brief*, February 10, 2020.
39. Almut Arneth et al., [“Framing and context,”](#) *Special Report on Climate Change and Land*, IPCC, 2022.
40. Baca et al., [“Why climate resilience is key to building the health care organization of the future.”](#)
41. Renee Cho, [“Why climate change is an environmental justice issue,”](#) *State of the Planet*, September 22, 2020; Sarah Kerr et al., [“The unseen toll of a warming world,”](#) *San Juan Daily Star*, March 22, 2022; Somini Sengupta, [“Here’s what extreme heat looks like: Profoundly unequal,”](#) *New York Times*, August 6, 2020.
42. UNCC, [“COP27 reaches breakthrough agreement on new ‘loss and damage’ fund for vulnerable countries.”](#)
43. Philip et al., [The turning point: A global summary.](#)
44. Victoria Masterson, [“Renewables were the world’s cheapest source of energy in 2020, new report shows,”](#) WEF, July 5, 2021.
45. Alex Rau, Rob Toker, and Joanne Howard, [“Can technology really save us from climate change?”](#) *Harvard Business Review*, January–February 2010; Catherine Clifford, [“Carbon capture technology has been around for decades—here’s why it hasn’t taken off,”](#) CNBC, updated February 1, 2021; Alejandro de la Garza, [“Climate experts say vacuuming CO2 from the sky is a costly boondoggle. The U.S. government just funded it anyway,”](#) *Time*, December 2, 2021.
46. For science-based future scenarios or sector-specific scenarios on climate change, see IPCC’s emissions scenarios [here](#) and Deloitte’s future of energy scenarios [here](#).
47. The authors define inclusive prosperity using the National Bureau of Economic Research definition, which states that “inclusive prosperity is where many people from different backgrounds can benefit from economic growth, new technologies and the fruits of globalization.”
48. Carbon footprint estimation tool for organizations and for individuals.
49. Carbon footprint estimation tool for organizations.



About Monitor Institute by Deloitte

Monitor Institute by Deloitte is a social change consultancy that marries the specialized knowledge and experience of a boutique social impact consulting practice within the breadth and scale of a globally recognized professional services organization. It sits in the Deloitte Purpose Office as part of the Office of the CEO. We work with innovative leaders to surface and spread best practices in public problem-solving and to pioneer next practices—breakthrough approaches for addressing social and environmental challenges. Monitor Institute combines a deep grounding in strategy, networks, social innovation, and human systems with the fundamentals of professional advisory services—effective project management, skilled facilitation, and well-timed intervention. As a for-profit/for-benefit hybrid, Monitor Institute pursues social impact while operating as a fully integrated unit of Deloitte LLP. For more information about Monitor Institute by Deloitte, visit www.monitorinstitute.com.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see www.deloitte.com/about for a detailed description of DTTL and its member firms. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the “Deloitte Network”), is, by means of this communication, rendering professional advice or services. Before making any decisions or taking any action that may affect your finances, or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.