

Sustainability and Public & Social Sector Practices

It's time for philanthropy to step up the fight against climate change

Climate change's negative effects are coming to bear on high-priority philanthropic issues. More and better funding can protect vulnerable stakeholders and speed the net-zero transition.

This article is a collaborative effort by Suzanne Cox, Tom Hellstern, Kimberly Henderson, Tracy Nowski, Maisie O'Flanagan, Dickon Pinner, Taylor Ray, and Adam Sabow, representing views from McKinsey's Sustainability Practice and Philanthropy service line.



© Marc Romanelli/Getty Images

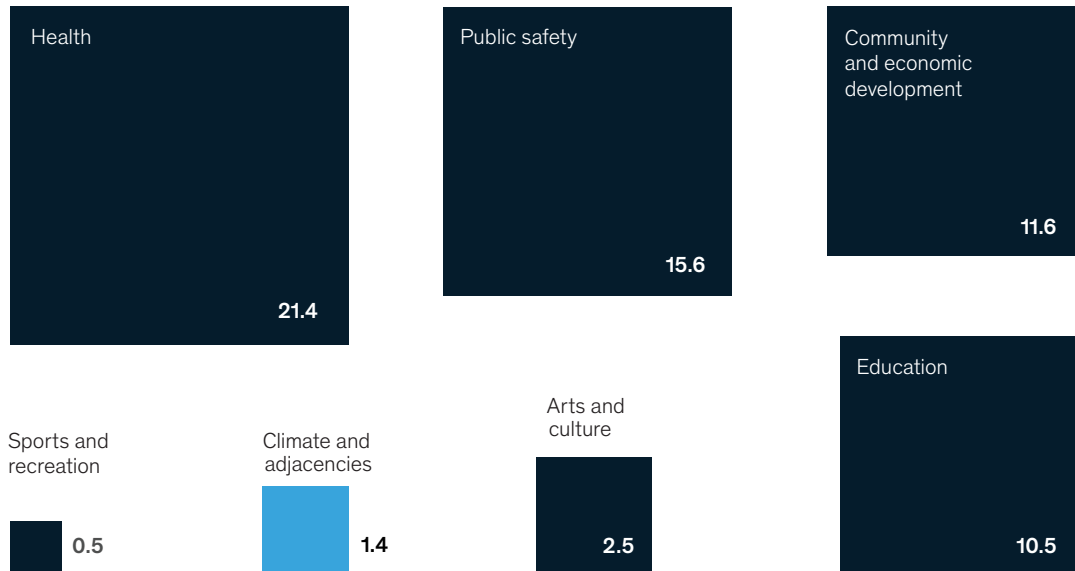
Climate change has begun to exacerbate societal challenges in many areas that philanthropies have prioritized, such as education, health, human rights, equality, and food security. Still greater threats to human well-being lie ahead. Climate hazards are set to become more frequent and more intense over the coming decade, and McKinsey research shows that levels of physical risk will increase unless global greenhouse-gas (GHG) emissions are drastically reduced.¹

Despite climate change's impact on their work, philanthropies have historically allocated relatively small sums to addressing the problem. In 2020, US-based grant makers disbursed almost \$64 billion. Of that, about \$320 million went directly toward climate change (Exhibit 1). Additional funding went to related environmental priorities, such as air, land, and water conservation, for a total of \$1.4 billion, but even these amounts pale in comparison to those spent on matters such as education (\$10.5 billion).² More recently, major

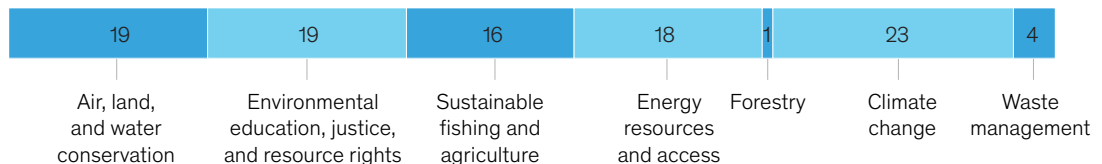
Exhibit 1

Compared with other major categories, climate and adjacent environmental areas receive a low proportion of grant funding.

US philanthropic grant funding for key areas in 2020, \$ billion



US philanthropic grant funding for climate and adjacent environmental areas in 2020, % by category



Source: Candid

¹ *Climate risk and response: Physical hazards and socioeconomic impacts*, McKinsey Global Institute, January 16, 2020, McKinsey.com.

² Data is from Candid's Foundation Directory Online on US philanthropies from 2020, including foundations, community foundations, community trusts, corporate giving programs, and giving circles.

philanthropists have pledged large sums to climate change—\$500 million from Michael Bloomberg, \$750 million from Stewart and Lynda Resnick, \$1 billion from Hansjörg Wyss, \$3.5 billion from Laurene Powell Jobs, and \$10 billion from Jeff Bezos—joining longtime climate funders such as the David and Lucile Packard Foundation, the William and Flora Hewlett Foundation, and the John D. and Catherine T. MacArthur Foundation.

Even accounting for these new commitments, philanthropic funding of climate-change solutions remains meager compared with the scale of the problem and the speed with which the world must act to stop climate change and the suffering it causes. To lower the odds of initiating climate change's most dangerous effects, scientists estimate that it's necessary to restrict warming to 1.5°C. This would require a major reduction of GHG emissions by 2030 and the achievement of net-zero emissions by 2050—an endeavor calling for trillions of dollars of additional capital spending. Still more funding will be needed to improve resilience against physical climate hazards that are now inevitable.

While much of that capital would come from companies, governments, and investors, philanthropists can play a vital role in the world's response to climate change by targeting geographies, industries, and solutions that most need support. Foundations, charitable LLCs, and individual donors share a distinctive ability to deploy nimble, responsive, flexible, risk-tolerant, patient capital in ways that support high-value interventions directly and can attract more funding from other sources. And they have a broad range of funding mechanisms with which to drive impact, including grants, mission- and program-related investments, competitions and prizes, and venture philanthropy.

In this article, we illustrate opportunities for philanthropists to act on climate change by

highlighting three promising focus areas: fostering policy environments and civil societies driven to fight climate change; investing in climate solutions that lack market support; and protecting people from climate risks and supporting environmental justice. We close with a call for the philanthropic community to increase their own climate funding, mobilize capital from other sources, and improve collaboration—all of which would make a significant impact on the climate challenge.

The climate imperative for philanthropy

The reason for philanthropies to address climate change is clear: a warming atmosphere puts pressure on the very causes and stakeholders that philanthropies most want to support. For communities around the world, climate change has worsened physical hazards, such as violent storms, floods, drought, and intense heat, that take a severe human and economic toll. Due to the warming power of GHGs already in the atmosphere, these harmful effects are set to become more widespread and intense through 2030.³ And if emissions continue to rise unabated, climate science tells us that feedback loops, such as forest declines (or “diebacks”), could cause significant further warming that would lead to even more intense physical hazards.⁴ These climate impacts multiply the risks to philanthropic endeavors in areas such as the following:

Global health and pandemics. Climate change increases the burden of disease and ill health in various ways. Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year due to heat exposure in elderly people, diarrhea, malaria, and childhood undernutrition.⁵ In India, some 160 million to 200 million people could annually face a 5 percent chance of being exposed to a lethal heat wave as early as 2030 without targeted adaptation

³ *Climate risk and response*, January 2020.

⁴ Kimberly Henderson, Dickon Pinner, Matt Rogers, Bram Smeets, Christer Tryggestad, and Daniela Vargas, “Climate math: What a 1.5-degree pathway would take,” *McKinsey Quarterly*, April 30, 2020, McKinsey.com.

⁵ “Climate change and health,” World Health Organization, February 1, 2018, who.int.

action.⁶ Deforestation, which accelerates climate change, also increases the risk of zoonotic diseases—of which SARS-CoV-2, the coronavirus that causes COVID-19, is just one lethal example.⁷

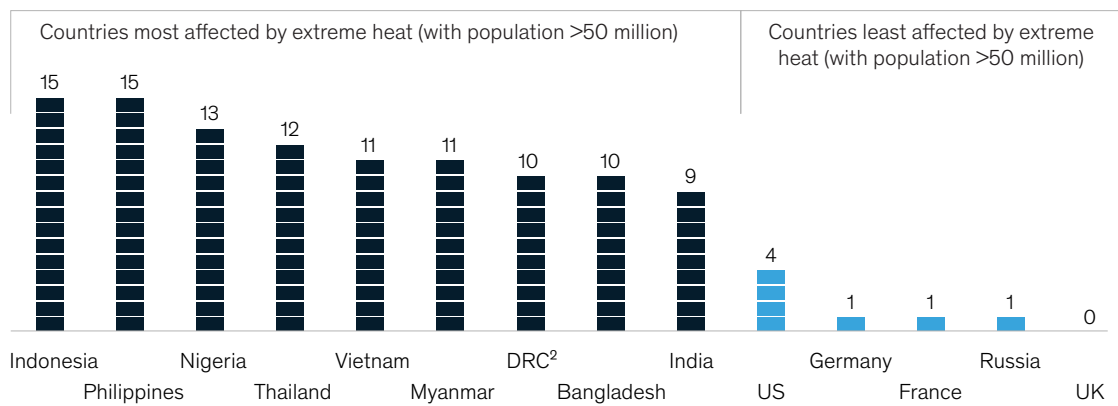
Inequality. Racial and ethnic minorities, low-income communities, and less-developed countries tend to be more exposed to climate hazards. For example, African farmers tend to be more vulnerable to fluctuations in rainfall, warmer

temperatures, and variable yields than farmers in developed countries.⁸ Research by the McKinsey Global Institute indicates that Asia's least-developed countries face the greatest climate risk⁹ and that the extreme heat that results from climate change will reduce working hours in poorer countries more than in rich countries (Exhibit 2).¹⁰ Typically, underprivileged groups also have less access to social programs and resources that might help them withstand these hazards.

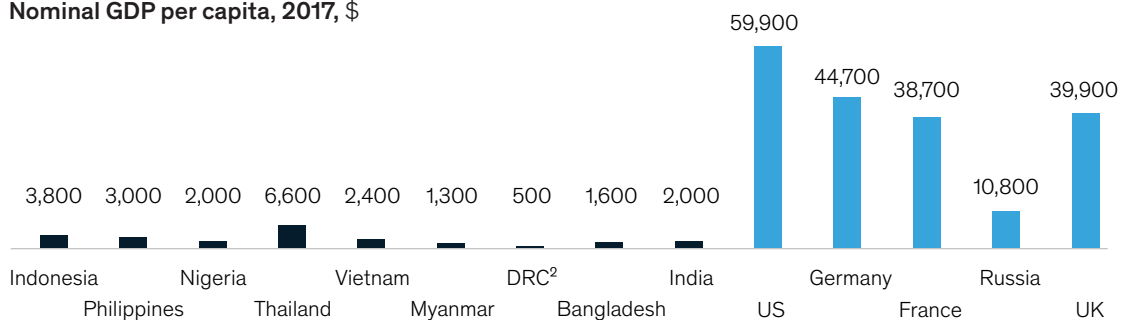
Exhibit 2

Climate change is likely to reduce working hours more in poor countries than in rich countries.

Increase in share of working hours lost due to extreme heat, 2018–50,¹ percentage points



Nominal GDP per capita, 2017, \$



¹Based on Representative Concentration Pathway 8.5 emissions scenario.

²Democratic Republic of the Congo.

Source: *Climate risk and response: Physical hazards and socioeconomic impacts*, McKinsey Global Institute, January 16, 2020; Woodwell Research Center

⁶"Will India get too hot to work?," McKinsey Global Institute, November 25, 2020, McKinsey.com.

⁷Andrew Dobson et al., "Ecology and economics for pandemic prevention," *Science*, July 2020, Volume 369, Issue 6502, pp. 379–81, sciencemag.org.

⁸"How will African farmers adjust to changing patterns of precipitation?," McKinsey Global Institute, May 18, 2020, McKinsey.com.

⁹"Climate risk and response in Asia," McKinsey Global Institute, November 24, 2020, McKinsey.com.

¹⁰*Climate risk and response*, January 2020.

Displacement and statelessness. In 2017, weather events such as floods, wildfires, and storms displaced an estimated 22 million to 24 million people. Climate-induced displacement is likely to continue as extreme weather and chronic physical hazards make regions less habitable. The World Bank estimates that by 2050, some 143 million people in Latin America, sub-Saharan Africa, and South Asia will migrate domestically because of climate change.¹¹

Empowerment of women and girls. Climate hazards exacerbate underlying gender inequality. Women comprise the majority of individuals displaced by climate-related disasters worldwide.¹² Climate change and climate-related disasters have been shown to increase rates of domestic violence and gender-based sexual violence for women and girls.¹³ Droughts, floods, and extreme temperatures disproportionately increase women's workloads, as rural women and girls in developing economies rely more on agricultural work and carry the burden of gathering food, fuel, and water for their households.¹⁴

By helping to stabilize the climate and blunt climate change's locked-in effects, philanthropies can aid stakeholders whom they already aim to serve. To

do so efficiently, philanthropies will want to target areas where they are uniquely positioned to help.

Targeting philanthropic action in areas of need

Responding to climate change involves two broad classes of activities that philanthropists can usefully support. The first, decarbonization, consists of reducing emissions of GHGs or removing carbon dioxide from the atmosphere. Its purpose is to stop the further buildup of physical hazards and lessen the risk of initiating climate feedback loops. Scientists estimate that restricting warming to 1.5°C, an ambition also specified in the 2015 Paris climate accord, would reduce the risk of initiating most of the serious feedback loops. The pathway toward 1.5 degrees of warming is defined by rapid emissions reductions in every part of the global economy, beginning now and resulting in no net emissions by 2050 (Exhibit 3).¹⁵

The other main form of climate response is adaptation. This refers to efforts to protect people and assets against the physical hazards caused by climate change, such as extreme weather; to make systems more resilient and robust; to reduce exposure to climate hazards by relocating assets and

Climate hazards exacerbate underlying gender inequality. Women comprise the majority of individuals displaced by climate-related disasters worldwide.

¹¹Kanta Kumari Ragaud et al., *Groundswell: Preparing for internal climate migration*, World Bank, 2018, openknowledge.worldbank.org.

¹²*Evicted by climate change: Confronting the gendered impacts of climate-induced displacement*, CARE, 2020, careclimatechange.org.

¹³"Climate change increases the risk of violence against women," United Nations Framework Convention on Climate Change, November 25, 2019, unfccc.int.

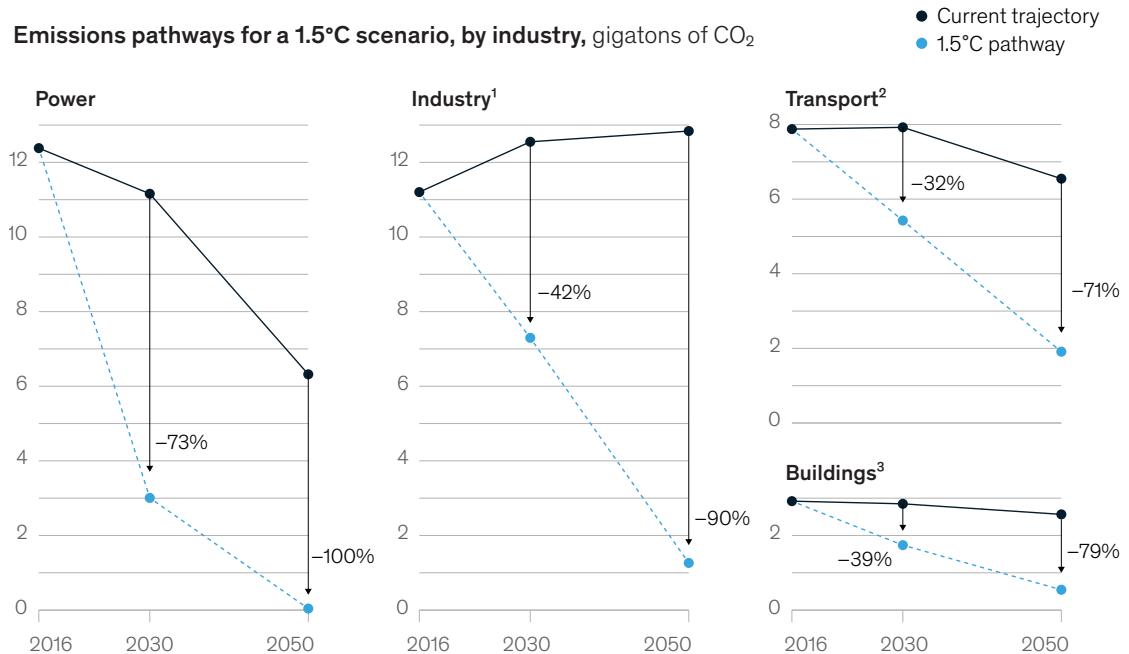
¹⁴*The power of parity: How advancing women's equality can add \$12 trillion to global growth*, McKinsey Global Institute, September 2015, [McKinsey.com](https://www.mckinsey.com/); *Climate change & women*, Oxfam America, 2008–09, [oxfamamerica.org](https://www.oxfamamerica.org).

¹⁵"Climate math," April 2020.

Exhibit 3

The 1.5°C pathway is possible, but it's a stark departure from business as usual across industries.

Emissions pathways for a 1.5°C scenario, by industry, gigatons of CO₂



¹Includes cement, chemicals, iron and steel, mining, oil and gas, low- to medium-temperature and high-temperature industries, and others.

²Includes aviation, marine, rail, passenger cars, and other modes of road transport (eg, two- and three-wheelers, buses, trucks, vans, and pickups).

³Includes space and water heating, cooking, lighting, appliances, and space cooling for commercial and residential buildings.

Source: McKinsey Global Energy Perspective 2019: Reference Case; McKinsey 1.5°C scenario analysis

communities; and to help manage risk with insurance and other financial mechanisms.¹⁶ Adaptation is important because further increases in physical climate hazards are “locked in” over the next decade, due to GHGs already present in the atmosphere.

Philanthropists possess expertise, resources, and techniques that can powerfully advance both decarbonization and adaptation efforts. They can quickly deploy unrestricted funds in response to urgent problems such as natural disasters, back high-risk ventures (or derisk them to attract capital), convene stakeholders and promote collaboration, develop and share research, and engage in policy advocacy that supports large-scale implementation of climate solutions. As for which climate issues to

tackle, philanthropies are generally well suited to address market failures in areas of significant and urgent need and lend assistance to underserved communities. Between decarbonization and adaptation, the former stands out as the area where philanthropic support would have the greatest long-term benefits.

With those capabilities and priorities in mind, we engaged dozens of climate experts at McKinsey and other organizations in assessing opportunities for foundations, philanthropic LLCs, and family offices to play an outsize, transformative role in climate action. Below, we illustrate that role by describing three areas in which philanthropies might intervene: fostering a pro-climate policy environment and

¹⁶ *Climate risk and response*, January 2020.

civil society; investing in climate solutions that lack market support; and protecting people from climate risks and supporting environmental justice.

Fostering policy environments and civil societies driven to fight climate change

Public policies and spending programs are essential to enabling climate action. Many countries have announced targets to achieve net-zero emissions by midcentury; these targets now cover some two-thirds of global emissions. But few have set out detailed plans or created the array of policy mechanisms that would enable them to reach those targets. Philanthropists could help kick-start governments' efforts to build awareness of climate risks, create markets for low-carbon technologies, support investment in infrastructure (such as hydrogen distribution systems), and encourage early-stage R&D for decarbonization solutions.

To this end, philanthropic institutions can help build the technical acumen of public servants working on climate issues. Training courses, workshops, and conferences equip officials with knowledge and help create communities of practice. For example, the NDC Partnership trains public servants through programs supporting the implementation of countries' climate-action pledges (nationally determined contributions, or NDCs) under the Paris Agreement, and the Rocky Mountain Institute's Energy Transition Academy teaches political leaders in developing countries how to promote the use of clean-energy technologies.

Community and national advocates play an important role in influencing policy makers, shaping public debate, and rallying support for change. Philanthropies might consider assisting them with funds for rapid-response projects and general operations. For example, the CLIMA Fund, which enjoys backing from multiple philanthropic organizations, has provided more than 14,000 grants to grassroots groups.

Philanthropies can also catalyze climate action by supporting voluntary civil-society programs that hold organizations accountable for doing more than governments require. For example, the Gold Standard, created by the World Wildlife Fund and backed by philanthropies, promulgates verification criteria and procedures for carbon credits sold in voluntary markets to build confidence in the market and ensure that the emissions-reduction projects prevent carbon pollution. Coalition building can help address policy gaps and the resulting market failures, as well as encourage organizations to uphold climate-related public policies.

Lastly, philanthropies might stage public-awareness campaigns that encourage people to adopt climate-friendly behaviors, much as they have helped promote other habits that are healthful and good for the environment and society. To underpin such an effort, they might fund research on which behaviors would most reduce carbon emissions from one geography to another and what messages and channels would influence change most effectively.

Investing in climate solutions that lack market support

Extensive decarbonization will involve rapid, large-scale implementation of both low-carbon technologies, such as renewables, hydrogen, and carbon capture and storage, and natural climate solutions (NCS) such as reforestation. Research by McKinsey and the World Economic Forum suggests that NCS projects alone could yield nearly one-third of the emissions reductions required to achieve a 1.5-degree warming pathway.¹⁷ The problem is that uptake of climate solutions is well behind the pace required under a 1.5-degree scenario (Exhibit 4).

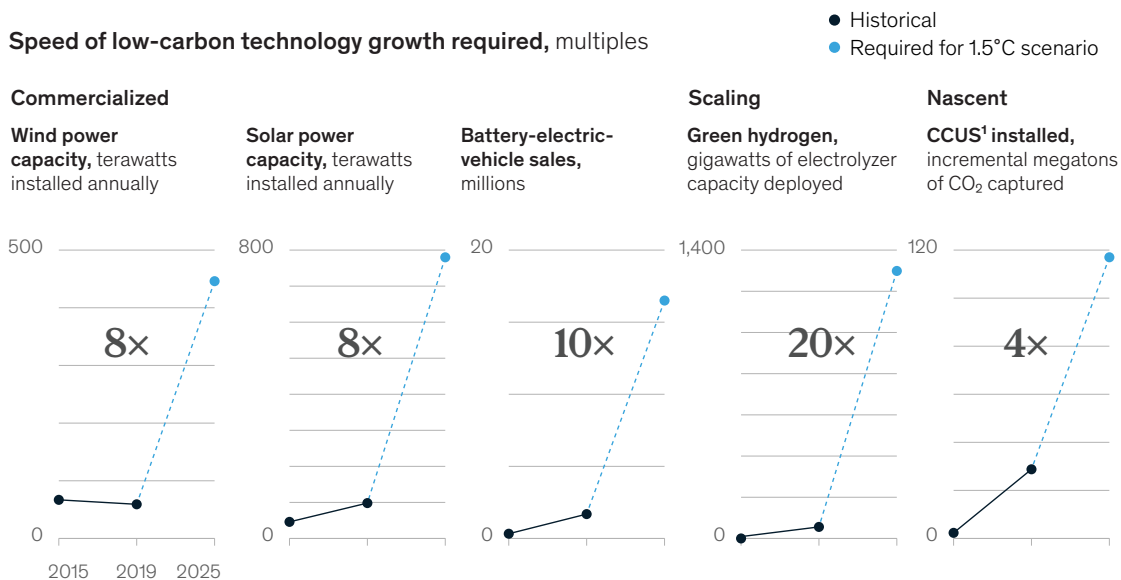
Philanthropists are uniquely equipped to support the adoption of both technological and natural climate solutions. Philanthropic organizations have a higher tolerance for investment risks and losses than profit-oriented investors do, and so their best play may be to provide the early-stage funding that emerging climate solutions need to achieve scale.

¹⁷ Daniel Aminetzah, Emily Birch, Julien Claes, Joshua Katz, Peter Mannion, Sebastien Marlier, Dickon Pinner, and Antoine Stevens, "Why investing in nature is key to climate mitigation," January 25, 2021, McKinsey.com.

Exhibit 4

Deployment of low-carbon technologies would need to accelerate rapidly to achieve a 1.5°C warming pathway.

Speed of low-carbon technology growth required, multiples



¹Carbon capture, utilization, and storage.

Source: EV-Volumes; International Energy Agency; International Renewable Energy Agency; McKinsey 1.5°C scenario analysis

As these solutions are applied at greater scale, they become less costly. Eventually they can become more economical than less climate-friendly options, which is what has happened with solar and wind power. With respect to their potential impact and suitability for philanthropic funding, two climate solutions stand out.

Forest conservation and restoration. Deforestation would need to be curbed rapidly to stabilize the climate; as it is, the cutting and burning of forests accounts for roughly 15 percent of global carbon-dioxide emissions each year. Philanthropy has a successful record of funding efforts to prevent deforestation. McKinsey research has shown that donors could increase impact by supporting wider use of project finance for permanence (PFP), a mechanism by which local conservation initiatives

receive funding as long as they deliver conservation outcomes.¹⁸ Or a group of donors could join forces to increase and coordinate funding aimed at stopping deforestation in hot-spot countries: just five countries (Bolivia, Brazil, Colombia, the Democratic Republic of Congo, and Indonesia) account for more than 50 percent of the potential emissions due to deforestation by 2050 (Exhibit 5).¹⁹

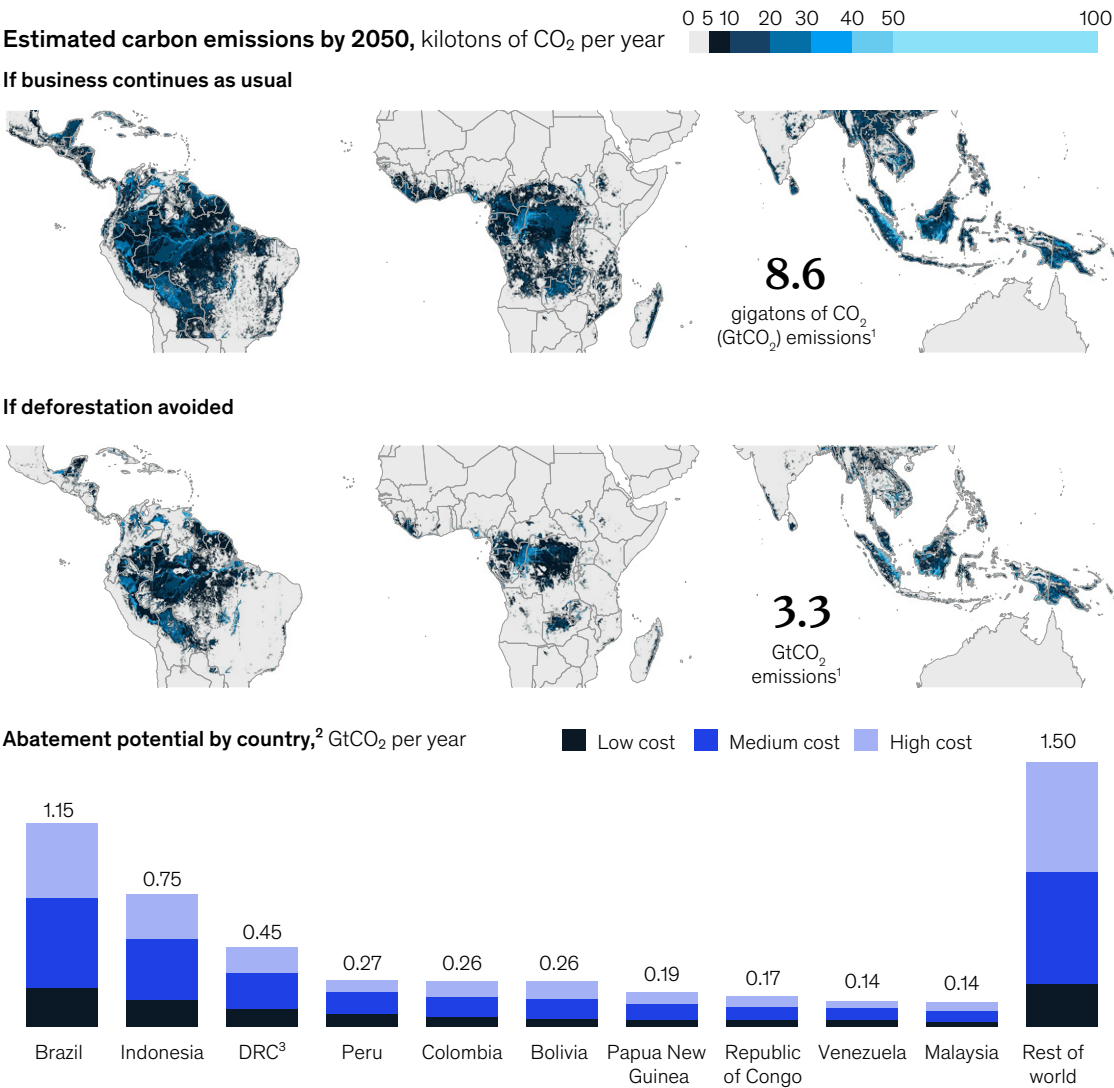
In parallel, mass reforestation is needed to draw carbon dioxide out of the atmosphere. According to our analysis, an area at least the size of Turkey would need to be reforested by 2030 in order to achieve a 1.5-degree emissions pathway. Philanthropies could directly support reforestation by purchasing land and paying for the planting of new forests, particularly in countries with high carbon-sequestration potential (Exhibit 6).

¹⁸ *Valuing nature conservation*, September 22, 2020, McKinsey.com.

¹⁹ Jonah Busch et al., "Potential for low-cost carbon dioxide removal through tropical reforestation," *Nature Climate Change*, 2019, Volume 9, pp. 463–66, nature.com.

Exhibit 5

Avoiding deforestation in the tropics can abate large amounts of carbon emissions.



Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by McKinsey & Company.

¹Net emissions from agriculture, forestry, and other land use are 5.5 ± 3.7 GtCO₂/year in 2008–17. These consist of gross emissions of CO₂ from deforestation, forest degradation, and the oxidation of wood products, as well as gross removals of CO₂ in forests and soils recovering from harvests and agricultural abandonment; Intergovernmental Panel on Climate Change.

²Classes of carbon prices: low cost (<\$10 per ton of CO₂), medium cost (>\$10 per ton of CO₂ to <\$45 per ton of CO₂), high cost (>\$45 per ton of CO₂ to <\$100 per ton of CO₂).

³Democratic Republic of the Congo.

Source: Jonah Busch et al., "Potential for low-cost carbon dioxide removal through tropical reforestation," *Nature Climate Change*, 2019, Volume 9, pp. 463–66; McKinsey Nature Analytics

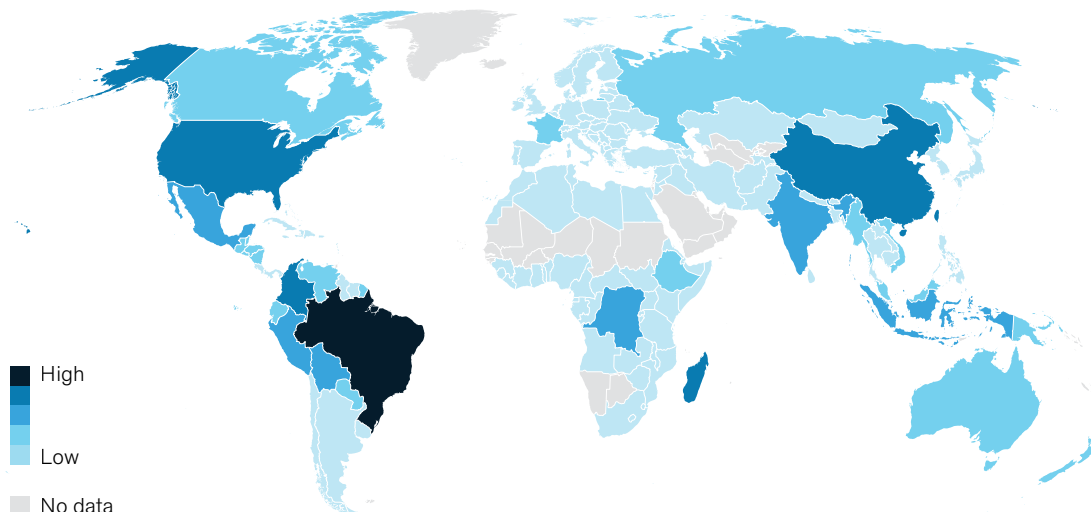
They can also increase the effectiveness of reforestation practices, which are still relatively new, by funding research on approaches for

particular biomes. Since philanthropies can transcend geographic affiliations, they can also facilitate the cross-border sharing of information

Exhibit 6

Certain countries have more potential to sequester carbon dioxide with reforestation projects.

Sustainable reforestation sequestration potential, amount of CO₂



Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by McKinsey & Company.
Source: McKinsey Nature Analytics

among governments and land-management organizations in ways that other institutions cannot.

Clean energy in the developing world. The International Energy Agency estimates that 770 million people lack access to electricity and that 2.6 billion people lack access to clean cooking facilities, with most of these groups living in sub-Saharan Africa and developing Asia.²⁰ These regions constitute some of the world's fastest-growing populations. Supplying electricity would help displace the high-carbon fuels (such as biomass, kerosene, and coal) that are now mainly used in cooking, and that can drive deforestation. However, if that electricity came from carbon-intensive power generation, then mass electrification would still result in a tremendous amount of GHG emissions. The electricity-access challenge must therefore be met with renewables.

Certain renewable-energy technologies can be deployed now at a modest up-front cost. McKinsey has determined that home solar-energy systems could electrify appliances for the roughly 150 million households that make up more than 90 percent of the world's unelectrified population.²¹ However, this only solves part of the problem. Zero-carbon solutions are needed in these markets to support an industrial-level baseload and to enable households to sustain several hours of cooking per day.

Philanthropies could help finance the innovation and deployment of renewable-energy technologies in the developing world in various ways. They could provide credit facilities to local banks, guarantee loans to renewable-energy companies, or set up systems for loaning money to customers. Low-cost, subordinated debt could offset country risk or build

²⁰SDG7: Data and projections, International Energy Agency, 2020, iea.org.

²¹Adam Kendall and Gillian Pais, "Bringing (solar) power to the people," June 4, 2018, McKinsey.com.

the project-development capabilities of renewable-energy businesses enough for them to attract private financing.²² The Climate Finance Partnership, for example, seeded a \$100 million first-loss capital facility, which is meant to mobilize \$400 million of additional investments in sustainable infrastructure for developing markets.²³

Protecting people from climate risks and supporting environmental justice

Climate change is expected to adversely impact vulnerable communities around the world. Physical hazards create risks. For example, farmers in some regions face longer periods of drought,²⁴ and entire communities can be displaced by fire, storm, or flood patterns.²⁵ In addition, as decarbonization progresses, it will cause an economic restructuring, termed the net-zero transition, that could create risks for some stakeholders (such as job losses in coal-mining communities) and opportunities for others. Philanthropies can help communities to cope with the socioeconomic impacts of climate change and the net-zero transition by building resilience and supporting environmental-justice efforts.

To manage physical climate risks, communities can apply multiple adaptation tactics. These include protecting assets and people (such as by reinforcing infrastructure, or building up natural defenses like coastal mangroves), creating backup capacity (such as stored food supplies), relocating communities out of harm's way, or purchasing insurance. Philanthropies might find any number of opportunities to support adaptation measures or disseminate them to other contexts. Tata Trusts, for example, has helped fund a nonprofit organization's efforts to restore bodies of water

that have been degraded and depleted by long periods of drought in Maharashtra, a state in western India. Or philanthropies could fund efforts by nongovernmental organizations to set up voucher programs that make disaster insurance more affordable for vulnerable communities.²⁶

So-called transition risks could have profound effects on local economies and workforces. A recent McKinsey analysis estimates that the lowest-cost pathway to climate neutrality in Europe could cause some six million jobs to disappear by 2050, while creating 11 million jobs for which many workers would need fresh training.²⁷ Philanthropies can help ease shifts such as these. Donors might fund reskilling programs to build new labor forces and to aid workers whose jobs will become vulnerable. Or they might support the creation of plans for low-carbon economic development. The donor-backed Just Transition Fund, for example, offers ideas about how communities that rely on the coal industry can maintain their economic vitality as demand for coal wanes.

A call to action: Increasing funding, mobilizing capital, and expanding collaboration

During 2020, the COVID-19 pandemic and social-justice movements emerged as pressing philanthropic causes, alongside issues such as education and global health to which donors have long dedicated substantial funds. Now the extent of the climate challenge, along with its effects on myriad philanthropic concerns, should compel philanthropists to place climate change among their highest priorities. They can address it by increasing funding, mobilizing other capital providers behind

²² Josh Agenbroad, Kelly Carlin, Kendall Ernst, and Stephen Doig, *Minigrids in the money: Six ways to reduce minigrid costs by 60% for rural electrification*, Rocky Mountain Institute, 2018, rmi.org.

²³ Marilyn Waite, "Blending philanthropic, public and private capital to finance climate infrastructure in emerging economies," ImpactAlpha, January 23, 2020, impactalpha.com; "Davos 2020 Climate Finance Partnership press release," Bloomberg, January 22, 2020, Bloomberg.com; "Climate Finance Partnership commits \$77.5 million in catalytic capital," Philanthropy News Digest, January 28, 2020, philanthropynewsdigest.org.

²⁴ For more, see "How will African farmers adjust to changing patterns of precipitation?," May 2020.

²⁵ For more, see "Can coastal cities turn the tide on rising flood risk?," McKinsey Global Institute, April 20, 2020, McKinsey.com.

²⁶ "Climate risk and response in Asia," November 2020.

²⁷ *How the European Union could achieve net-zero emissions at net-zero cost*, December 3, 2020, McKinsey.com.

their own financing efforts, and collaborating with other philanthropists.

Increasing funding

Even as calls to accelerate the global response to climate change have intensified, philanthropy's contributions on climate have amounted to less than 1 percent of total giving in the United States and have increased slowly (Exhibit 7). To make a major impact on one of the greatest threats of our time, and to safeguard progress on other issues, philanthropies will need to allot more funding to stopping climate change. McKinsey and others are looking at how much more philanthropic funding is warranted, but so far there is little doubt climate funding should be at least an order of magnitude above historical levels. New funders would have to join the effort, and existing ones would have to increase their commitments. Donor collaboratives could crowd-fund from individual donors and donor-advised fund holders.

Mobilizing additional capital from private and public sources

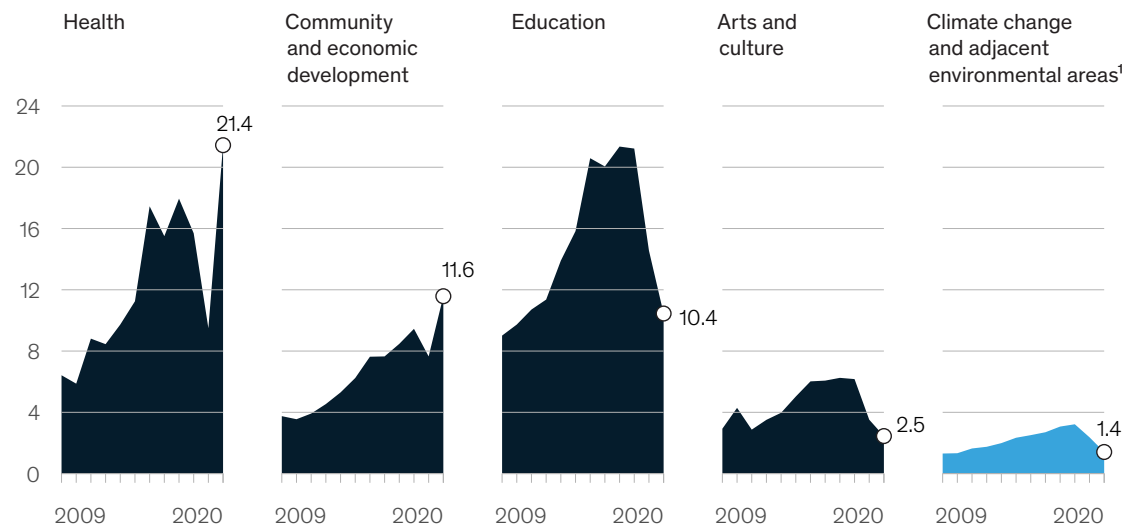
We noted above that philanthropies are well positioned to help bridge the funding gaps that can prevent early-stage climate solutions from achieving scale. Using philanthropic funding for this catalytic purpose is important because the capital required to bring a low-carbon technology to commercial viability can amount to hundreds of billions of dollars, which is more than philanthropies can realistically contribute.

Creating early markets before policy supports are in place is critical for deployment of new technologies. For example, a relatively modest amount was spent on solar deployments through 2000. These early projects were important for funding improvements in technology and performance (such as efficiency increases) and establishing supply chains and capabilities for project developers.

Exhibit 7

Philanthropic funding of climate change and adjacent areas lags behind funding of other areas and has increased less quickly.

US philanthropic grant funding, by subject area, \$ billion



¹Includes funding for climate change, sustainable agriculture, sustainable forestry, forest preservation, environmental education, environmental justice, air quality, energy resources, land resources, water resources, solid-waste management, environmental and resource rights, and atmospheric sciences.
Source: Candid

Philanthropies can help play an important role in creating early markets for new technologies, and there are various financial instruments that philanthropies can use to do this. (Which instruments a philanthropic organization can use will depend on its structure.) The menu of options includes the following:

- *“patient” venture capital* that brings philanthropic capital and private capital together in funds with longer time frames than the typical cycles of closed-end funds
- *low-cost, submarket debt or equity*, which can help reduce the cost of capital enough to attract private investors
- *loan guarantees, revenue guarantees, and insurance*, which also reduce cost and risk for investors by assuring that loans will be repaid even in the event that a creditor defaults

- *deployment grants* that defray the cost of implementing early-stage technologies and thereby reduce the risk of investing in demonstration projects

The latter three instruments can also be used to accelerate deployment of early-stage technologies by directly reducing their costs and making them competitive enough to be deployed more widely—which in turn helps reduce costs further. Analysis of the cost of “green” hydrogen (hydrogen made using renewable energy) suggests that philanthropic financing could lower the cost to a level that would open large hydrogen markets in Europe (Exhibit 8).

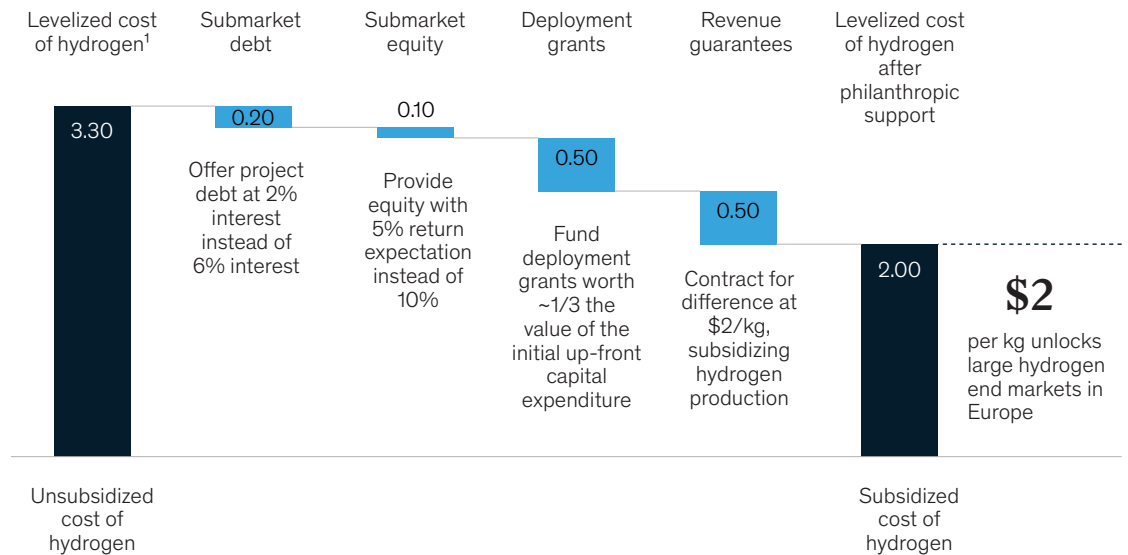
Expanding collaboration

Simply putting more money into climate solutions won’t be enough. Philanthropic funders often flock to the same causes or grantees or make grants to different organizations that support similar initiatives. To boost the returns on their spending,

Exhibit 8

Philanthropic financing could reduce the cost of ‘green’ hydrogen enough to open large markets in Europe.

Cost of green hydrogen, \$ per kilogram



¹Assumptions: total installed capital expenditure, \$1,000/kW; cost of electricity, \$30/MWh; efficiency, 66% lower heating value; 20-year project life; 7% weighted average cost of capital; 10-year stack replacement; operations and maintenance, 5% per year.

philanthropies could align complementary activities and reduce or eliminate activities that overlap. Collaboration is key to moving beyond groupthink—provided that funders prioritize collective impact over individual accolades.

Along these lines, major philanthropies might engage smaller philanthropies and other socially minded funders, such as impact investors, in their climate work. Forums for philanthropies and other stakeholders could help them pool knowledge, share giving opportunities, provide mentorship, build relationships, and organize cofunding arrangements that benefit newcomers and seasoned philanthropists alike. One example of such a collaboration is the Climate Leadership Initiative, which six foundations formed to advise philanthropies on investing in climate solutions.

Philanthropies might work together to steer nonfinancial resources to climate grantees, many of which also stand to benefit from technical

assistance, capability development, knowledge sharing, and referrals to others who can help. Philanthropies can help meet these needs if they share their climate plans and team up to assist grantees in using all the mechanisms at their disposal. Doing this effectively requires philanthropies to acknowledge the geographic and cultural contexts in which grantees operate, and tailor their support accordingly.

The climate challenge has reached the point where philanthropies can no longer look away or rely on corporations and governments to provide solutions. The window to stabilize the climate is brief, so near-term results matter greatly for the future of humanity. Now is the time for philanthropies to mobilize funding and maximize the impact of every dollar by using their unique capabilities in ways that complement what private- and public-sector organizations are also doing.

Suzanne Cox is a practice manager in McKinsey's Chicago office, where **Adam Sabow** is a senior partner; **Tom Hellstern** is an associate partner in the Seattle office; **Kimberly Henderson** and **Tracy Nowski** are partners in the Washington, DC, office; **Maisie O'Flanagan** is a senior adviser in the San Francisco office, where **Dickon Pinner** is a senior partner; and **Taylor Ray** is a consultant in the New Jersey office.

The authors wish to thank Avery Cambridge, Julien Claes, Michael Conway, Millicent Cripe, Will Glazener, Jared Goodman, Anu Gupta, Tony Hansen, Duko Hopman, Pablo Illanes, Sean Kane, Adam Kendall, Mekala Krishnan, James Manyika, Krish Mehta, Gillian Pais, Matt Rogers, Antoine Stevens, Sunny Sun, Daniela Vargas, Jop Weterings, Robert Wilson, Jonathan Woetzel, and Jinchun Zou for their contributions to this article.

Designed by McKinsey Global Publishing
Copyright © 2021 McKinsey & Company. All rights reserved.