Funding trends: Climate change mitigation philanthropy

By Hannah Roeyer, Muniba Ahmad, Meagan Fox, and Surabi Menon
In 2019, LESS THAN 2% of global philanthropic giving was dedicated to climate change mitigation. This does not meet the scale of the challenge. The world is facing a decisive decade to take action before the consequences of climate change become intolerably severe, and philanthropy must respond with the urgency and scale this crisis demands.

In 2019, philanthropic giving for climate change mitigation totaled between $5-$9 BILLION. Philanthropy alone cannot end the climate crisis, but it can play an essential role in catalyzing the trillions of dollars of public sector and private sector funding needed to transition toward a low-carbon global economy.

Every fraction of a degree of warming will compound the negative impacts of climate change, including severe storms, fires, floods, and rising sea levels. This will have dire effects on prosperity and equality around the globe for generations to come.

THE TIME FOR INVESTMENT IS NOW.

1 Estimate based on early research to quantify total philanthropic giving to climate change mitigation by individuals and foundations. There is significantly more certainty on the foundation component of climate mitigation philanthropy, discussed in more detail in this brief.
The world is facing a global crisis on an unprecedented scale. Unless the international community can take transformative action to combat climate change, people and communities will face increasingly dire consequences from rising global temperatures — extreme storms, droughts and wildfires, heat waves, mass species extinction, new infectious diseases, famines, civil strife, and more. Some of these impacts are already becoming commonplace in the daily news.

The centerpiece of international efforts to stem the tide of climate change is the 2015 Paris Agreement, which commits countries to the goals of limiting global temperature rise to less than 2°C, and making every effort to stay below 1.5°C. Achieving these targets is a major global undertaking that requires urgent action, but success remains possible.

Philanthropy can help catalyze the trillions of dollars of public sector and private sector funding that are required to enable the necessary transition toward a low-carbon global economy. However, as of 2019, less than 2% of global philanthropic giving was dedicated to climate change mitigation — not nearly enough to meet the scale of the global challenge.

The funding gap is especially stark considering recent research suggesting that the world is facing a decisive decade to take action before the consequences of climate change become intolerably severe.1

In order to help the philanthropic community respond to the climate emergency, ClimateWorks Global Intelligence provides insights to support new and existing climate funders in building and executing transformative climate strategies. As part of this service, ClimateWorks tracks the landscape of philanthropic giving for climate change mitigation.

In 2019, philanthropic giving worldwide totaled over $730 billion (see Figure 1).2 Based on research from Wealth-X and Barton Consulting, commissioned by ClimateWorks, we estimate that only $5 billion to $9 billion of that total was dedicated to climate change mitigation. Although the field of climate change mitigation philanthropy has been developing rapidly, at still well less than 2% of the global total, it clearly has immense room for rapid and sustained growth.

While ClimateWorks has launched efforts to track climate giving by individual donors, our most in-depth and longstanding research has focused on foundation grantmaking for climate change mitigation, to support strategic collaboration among climate funders. The remainder of this brief highlights key trends on how foundations are working to end the climate crisis, highlighting areas receiving ample funding as well as potential gaps and opportunities for urgent investment.

ClimateWorks extends our gratitude to the many partners whose data contributions have made this analysis possible.

---

1 IPCC. “Global Warming of 1.5°C — An IPCC Special Report.” Intergovernmental Panel on Climate Change, 2018.
While it comprises a small portion of overall global philanthropy, foundation funding for climate change mitigation has grown steadily in recent years.

As shown in Figure 2, tracked funding has grown from nearly $900 million in 2015 to at least $1.6 billion in 2019 among leading foundations with climate-focused programs, nearly doubling in that time frame.

Even with this growth, climate change continues to receive less than 2% of all known foundation grantmaking globally.

Figure 3 illustrates the breakdown of foundation funding by category, for foundations based in the U.S. only. A sectoral breakdown is not available for all foundations worldwide, but using this data available for the U.S., we can see how climate change mitigation compares to other sectors.

Source: Analysis by Candid of giving by subject across Foundation 1000 dataset, paired with ClimateWorks analysis of climate giving. Due to the nature of Candid’s classification system, there is overlap between subjects. Because grants may be tagged to each relevant topic, amounts here add up to over 100%. While some climate change mitigation grants may be captured in “Other Environment and Animals” and “Agriculture, Fishing, and Forestry,” they are also fully captured under “Climate Mitigation.”

Candid’s Foundation 1000 set includes all grants of $10,000 or more reported by 1,000 of the largest independent, corporate, community, and grantmaking foundations in the U.S. by total giving. This set accounts for approximately half of giving by all of the roughly 86,000 active grantmaking foundations in the U.S.
Trends across geographies and sectors

ClimateWorks tracks foundation funding for climate change mitigation across a set of sectors and regions,\(^3\) providing a window into long-term trends, ongoing gaps, and opportunities to increase support to the areas of most critical need.

Though a subset of total philanthropic giving, closely tracking this foundation giving data helps ClimateWorks and our partners to develop effective climate strategies by revealing areas to enhance action and funding across the field of foundation giving. Figure 4 shows foundation support for climate change mitigation strategies by region and sector, detailing average annual funding across these categories over the five years 2015-2019.

---

**FIGURE 4: KNOWN FOUNDATION SUPPORT FOR CLIMATE CHANGE MITIGATION, ANNUAL AVERAGE, 2015-2019**

We can directly compare general funding levels to ClimateWorks’ in-depth climate modeling across sectors and geographies to identify broad areas of underinvestment.\(^4\) From this perspective, it is clear that funding levels are not commensurate with need in a number of sectors, such as the industrial and buildings sectors, which collectively receive less than 8% of foundation funding for climate change mitigation, but according to ClimateWorks modeling, account for 26% of direct emissions reductions needed through midcentury in order to meet Paris Agreement goals.

---

\(^3\) Additional information on the strategies represented by each sector, and countries contained in each region, is available in Tables 1 and 2, starting on page 9.

\(^4\) The focus of this funding brief is to share high-level funding information; more information on the relationship between foundation funding flows and needs as identified in climate models is available upon request from ClimateWorks Foundation. Modeling data from: Monteith, S. and Surabi Menon. “Achieving global climate goals by 2050: Actionable opportunities for this decade.” ClimateWorks Foundation, 27 Aug 2020. [https://www.climateworks.org/report/achieving-global-climate-goals-by-2050-actionable-opportunities-for-this-decade/](https://www.climateworks.org/report/achieving-global-climate-goals-by-2050-actionable-opportunities-for-this-decade/)
These insights have helped funders take concrete action to address key funding gaps. For instance, as scientific research has shown in recent years that vast amounts of carbon dioxide need to be removed from the atmosphere in order to achieve the goals of the Paris Agreement, ClimateWorks’ funding data revealed that this emerging sector of carbon dioxide removal receives drastically insufficient government and philanthropic funding.

Given the need to rapidly scale up funding to this under-resourced sector, ClimateWorks and partners established the Carbon Dioxide Removal Program in 2018 to drive policy advocacy, research on underfunded technologies, and policy and investment strategies to promote carbon dioxide removal. These early investments are working to ensure that policy and technology are on track to meet the need to not only reduce current emissions, but to actively remove carbon dioxide already in the atmosphere.5

This data also reveals relative funding gaps in relation to a particular window for action. For example, in the lead-up to the Paris Agreement in 2015, a shared understanding among funders about the lack of international foundation investment to support India’s climate goals led to a collective effort to fill this need. We now estimate that foundation funding for climate change mitigation in India has more than doubled over the past five years, due to India-based collective efforts such as the India Climate Collaborative,6 which seeks to direct funding and visibility toward climate action across the country, alongside the efforts of international funding partners. It is crucial to note that although climate modeling data is vital for climate strategy development (see Figure 5), funding data provides a unique view into the activities that do not produce emissions reductions in themselves, but help create the conditions needed for transformative climate solutions to be effective. These critical sectors, which we’ve categorized as building an “Enabling Environment,” include indispensable activities such as work on sustainable finance, supportive governance, and a range of strategies aimed at building political will, which fall into the sub-category we call “Public Engagement.” This sub-category includes activities like frontline activism, strategic communications, engagement with the business community, and others. We believe this work is crucial to building enduring support for climate solutions, and that meaningful emissions reductions cannot be achieved without ensuring robust support for these enabling environment strategies.

---


A decade ago, the world was on a path toward a 4°C global temperature increase.\textsuperscript{7} Now, thanks to combined government, private sector, and philanthropic actions, those warming projections have decreased to roughly 3°C.\textsuperscript{8}

However, this still puts us on a path toward catastrophic climate change, the effects of which we are already beginning to see. To prevent severe and avoidable suffering, particularly among the globe’s most vulnerable people and ecosystems, we must act immediately to reduce our emissions today, while also removing harmful pollutants already in our earth’s atmosphere.

While philanthropic resources alone cannot match the trillions of dollars in investment needed to decarbonize the global economy, philanthropy has a unique and critical role to play in achieving this target. Philanthropy can increase global ambition, support innovative solutions, scale proven mitigation strategies, and drive collaborative actions.

Philanthropy can also take risks that the public and private sectors can’t or won’t take. It can support frontline advocacy, emerging but unproven breakthrough technologies, and unique collaborations that bring together voices from the public, private, and civil society sectors to solve the climate crisis.

ClimateWorks’ Funding Landscape is an important resource to help the philanthropic community to invest in climate solutions as effectively as possible. By combining this data on funding flows with leading-edge climate science and other resources, ClimateWorks and partners can understand the relationship between where funding is most needed and where it is going, scope new strategies, refine existing work, identify emerging partnership opportunities, and more.

Recognizing the immediacy and severity of the climate crisis, this data is a crucial resource for funders to develop and refine climate strategies with the urgency that the situation demands.

**Learn more**

Contact us to find out more about ClimateWorks Foundation’s data on philanthropic funding for climate change mitigation and how it compares to mitigation needs.

---


Methodology and notes

In order to help the philanthropic community effectively combat the climate crisis, ClimateWorks Global Intelligence tracks worldwide philanthropic giving for climate change mitigation, allowing funders to understand funding flows, gaps, and opportunities.

This tracking includes funding from foundations with major climate programs, publicly available data on official development assistance flows, and more recent tracking of donations from individuals to climate-relevant causes.

Foundation data
Data on foundation giving for climate change mitigation is based on a combination of proprietary data collected by ClimateWorks in real time from approximately 70 major climate foundations, supplemented with data from dozens of other institutions on a time lag, due to the time between funding commitments and the data becoming publicly available. In addition to direct partnerships, we also use publicly available data from foundation websites and tax disclosure forms, and data collected by partners such as the OECD’s Philanthropy Center, the European Foundation Centre, and Candid. Significant measures are taken to avoid double-counting in these figures.

Individual giving data
Numbers on individual giving for climate change mitigation are estimates for 2019 based on market-sizing research by Barton Consulting and Wealth-X. This research provided a mid-point estimate for individual giving to climate change mitigation of roughly $6.2 billion in 2019. As is standard practice, the principal market-sizing estimate does not include mega-gifts, which Barton Consulting and Wealth-X estimate to total between $140 million to $920 million in 2019. ClimateWorks Foundation and the Rhodium Group conducted additional validation to construct uncertainty parameters around this estimate to arrive at a total estimated range, including mega-gifts, of $3.4 billion to $7.1 billion in individual giving to climate change mitigation in 2019. This is significantly less than 2% of the $472 billion that Barton Consulting and Wealth-X estimate was given away by individuals in 2019.

Major pledges
Major pledges — for example, Jeff Bezos’ recent pledge to commit $10 billion to solving the climate crisis — are included in this data only after funding begins flowing to the field, rather than when it was committed. For instance, if a $50 million gift is deployed over the course of 10 years, we would treat this as $5 million annually, rather than $50 million in the first year.

Other public and private funding sources
The landscape of philanthropic giving is complex and growing. Globally, experts estimate that philanthropic giving topped $730 billion in 2019. According to Giving USA in the U.S. alone, individuals, foundations, and corporations gave nearly $450 billion – 70% of the global giving total – to over 1 million registered charities in 2019. This represents a 25% increase in giving over the past five years, well outpacing inflation.

Beyond the traditional philanthropy covered in this brief, the growing field of mission investing is another source of important capital in the fight against climate change. The Global Impact Investing Network estimates that the mission investing market included over $715 billion in assets under management in 2019.

Philanthropic tracking is also becoming more complex as the field evolves. The expansion of alternate forms of giving, such as donor-advised funds (DAFs) or the LLCs favored by some donors, offers additional flexibility to donors but presents some challenges in tracking funding. DAFs have seen an 86% increase in contributions over the past five years, receiving contributions of almost $40 billion in 2018.

Looking beyond philanthropy, the Climate Policy Initiative produces regular estimates of global climate finance flows. Its most recent release estimated a total of $546 billion in global climate finance, including public and private funds, an increase from $342 billion when tracking first began in 2013. While a seemingly large amount, this still falls far short of the trillions needed to avert catastrophic climate change.

---

### Definitions of sectors and geographies

#### Table 1: Sector Definitions

<table>
<thead>
<tr>
<th>Sector Name</th>
<th>Sector Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>This sector includes work to decarbonize the buildings sector, including building electrification, efficiency, and reduction of embodied emissions.</td>
</tr>
<tr>
<td>Carbon Dioxide Removal (CDR)</td>
<td>In addition to slashing current greenhouse gas emissions, carbon dioxide (CO₂) needs to be removed from the atmosphere in order to meet the goals of the Paris Agreement. Work under this sector encompasses the variety of strategies targeting the removal of CO₂ from the air, including land-based CDR, on-farm CDR, combined CDR, technological CDR, ocean-based CDR, as well as comprehensive strategies and other carbon removal strategies and innovations.</td>
</tr>
<tr>
<td>Challenge Fossil</td>
<td>This sector includes work to target upstream supply of oil, gas, and coal, as well as efforts to fight the use of coal-fired power. Efforts to reduce the use of fossil fuels in specific sectors, such as Industry or Transport, are included under those sectors.</td>
</tr>
<tr>
<td>Cities</td>
<td>This sector includes work to decarbonize cities, including through the development of city-based leadership on climate, clean urban mobility, green urban planning, and related city-based strategies.</td>
</tr>
<tr>
<td>Clean Electricity</td>
<td>This sector includes work pushing forward on clean electricity, including the development and deployment of renewable energy, utility model reform, grid efficiency, and integration of renewables onto the grid.</td>
</tr>
<tr>
<td>Cooling</td>
<td>This sector includes support to increase energy efficient and climate-friendly cooling.</td>
</tr>
<tr>
<td>Core and Unallocated</td>
<td>This sector includes core support that is not otherwise related to a specific sector. Core support to an organization, such as a clean transport nonprofit, would be shown as accruing to the relevant sector, in this example, Transport. Core support to an organization working across a range of climate-relevant topics and sectors is shown in this Core sector.</td>
</tr>
<tr>
<td>Food &amp; Agriculture</td>
<td>This sector includes work to decarbonize the food system and agricultural sector, including increasing efficiency in the system, supporting alternative production models, shifting consumption patterns, supporting deforestation-free commodities, and accelerating support for a just rural transition.</td>
</tr>
<tr>
<td>Forests</td>
<td>This sector includes work to prevent deforestation and protect climate-relevant non-agricultural landscapes. Afforestation or reforestation efforts, which ClimateWorks considers land-based carbon removal, can be found under the Carbon Dioxide Removal sector. Work on agricultural landscapes and work on forest-related commodities can be found under the Food &amp; Agriculture sector.</td>
</tr>
<tr>
<td>Governance, Diplomacy, &amp; Legal</td>
<td>This sector includes work on general governance and policy (for example, broad efforts to support development and implementation of a country’s Nationally Determined Contribution to the Paris Agreement); diplomacy (for instance, work with Track II dialogues or with the UN); and litigation-based climate initiatives.</td>
</tr>
<tr>
<td>Industry</td>
<td>This sector includes work to decarbonize the material economy (including mining, manufacturing, construction, and waste processing) through electrification where possible, promotion of the circular economy and material efficiency, deployment of industry-specific carbon capture and storage, and broad efforts to innovate industrial business models and the policy environment.</td>
</tr>
<tr>
<td>Public Engagement</td>
<td>This sector includes work on public will-building, mobilization, and engagement. Specifically, it includes work on strategic communications, grassroots mobilization, work to mobilize non-traditional allies, business engagement, and other public engagement efforts.</td>
</tr>
<tr>
<td>Super Pollutants</td>
<td>This sector targets super pollutants including methane, hydrofluorocarbons (F-gases), black carbon, and ground-level ozone. The scope includes methane leakage and venting from oil and gas operations; speeding up implementation of the Kigali amendment on HFCs, and cutting particulate emissions from off-road diesels, brick kilns and other sources.</td>
</tr>
<tr>
<td>Sustainable Finance</td>
<td>This sector contains work to align finance with international climate goals and accelerate the inevitable low-carbon transition. It spans influencing activities in the capital markets, including climate disclosure and analysis, investment alignment, and corporate and policy engagement; the governance of the financial system, including supervision, regulation, legislation, and monetary policy; fiscal policy, including development of public financial institutions, subsidies, procurement, and emissions pricing; development of markets for low-carbon investments, including mission investment and program-related investment; and macroeconomic and trade-related strategies.</td>
</tr>
<tr>
<td>Transportation</td>
<td>This sector contains work to decarbonize the transportation sector, including through vehicle electrification (light duty and freight), vehicle efficiency, aviation, international shipping, and promotion of other zero-emission modes of transport. Urban mobility, including micro-mobility, can be found under the Cities sector.</td>
</tr>
<tr>
<td>Other Strategies</td>
<td>This sector contains additional strategies that, while important, cut across multiple other sectors or do not receive significant enough funding at this point to be broken out into their own sectors. Strategies in this sector include: air quality; energy access; equity &amp; justice strategies; general climate research; health-based strategies; innovation; just transition; new economy; and sustainable behavior &amp; lifestyles. Contact ClimateWorks for more information about the breakdown in this sector.</td>
</tr>
</tbody>
</table>
### Table 2: Region Definitions

<table>
<thead>
<tr>
<th>Region</th>
<th>Region Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>This region includes all sub-regions within Africa. It includes the specific countries: Angola, Benin, Burkina Faso, Central African Republic, Cote d’Ivoire, Cameroon, Republic of the Congo, the Democratic Republic of the Congo, Burundi, Botswana, Comoros, Cape Verde, Djibouti, Algeria, Egypt, Eritrea, Western Sahara, Ethiopia, Gabon, Ghana, Guinea, Gambia, Guinea-Bissau, Equatorial Guinea, Kenya, Liberia, Lesotho, Morocco, Madagascar, Mali, Mozambique, Mauritania, Mauritius, Malawi, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, Sao Tome and Principe, Sudan, Swaziland, Chad, Togo, Tunisia, Tanzania, Uganda, South Africa, Zambia, and Zimbabwe.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Brazil</td>
</tr>
<tr>
<td>China</td>
<td>China</td>
</tr>
<tr>
<td>Europe</td>
<td>This region includes all of Europe, including EU and non-EU countries. It includes the specific countries: Albania, Andorra, Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Belarus, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Spain, Estonia, Finland, France, United Kingdom, Greece, Greenland, Croatia, Hungary, Ireland, Iceland, Italy, Liechtenstein, Lithuania, Luxembourg, Latvia, Monaco, Moldova, North Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Sweden, Turkey, Ukraine, and Vatican.</td>
</tr>
<tr>
<td>India</td>
<td>India</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Latin America</td>
<td>This regional grouping includes all of Central and South America and the Caribbean, excluding Brazil which, due to historical funding patterns and emissions levels, is broken out as a standalone region in the data. It includes the specific countries: Argentina, Antigua &amp; Barbuda, Bahamas, Belize, Bolivia, Barbados, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, Grenada, Guatemala, Guyana, Honduras, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Mexico, Nicaragua, Panama, Peru, Paraguay, El Salvador, Suriname, Trinidad and Tobago, Uruguay, Saint Vincent and the Grenadines, and Venezuela.</td>
</tr>
<tr>
<td>Middle East &amp; Central Asia</td>
<td>This regional grouping includes countries in the Middle East, Central Asia, and Russia. It includes the specific countries: Armenia, Azerbaijan, Bahrain, Georgia, Iran, Iraq, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Mongolia, Oman, Pakistan, Qatar, Russian Federation, Saudi Arabia, Syrian Arab Republic, Tajikistan, Turkmenistan, United Arab Emirates, Uzbekistan, and Yemen.</td>
</tr>
<tr>
<td>Other Asia &amp; Oceania</td>
<td>This regional grouping includes countries in Asia and Oceania other than China, India, and Indonesia which, due to historical funding patterns and emissions levels, are broken out as standalone regions in the data. It includes the specific countries: Afghanistan, Australia, Bangladesh, Brunei Darussalam, Bhutan, Fiji, Japan, Micronesia, Cambodia, Kiribati, Laos, Sri Lanka, Maldives, Marshall Islands, Myanmar, Malaysia, Nepal, Nauru, New Zealand, Philippines, Palau, Papua New Guinea, Samoa, Singapore, Solomon Islands, South Korea, Thailand, Tokelau, Timor Leste, Tonga, Tuvalu, Vietnam, and Vanuatu.</td>
</tr>
<tr>
<td>U.S. and Canada</td>
<td>This regional grouping includes the U.S. &amp; Canada.</td>
</tr>
<tr>
<td>Global</td>
<td>This regional grouping includes funding with a global or transnational focus and/or with work occurring in countries that span multiple regions.</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>This region houses funding for which the region is not known.</td>
</tr>
</tbody>
</table>

### Acknowledgements

ClimateWorks extends our gratitude to the many partners whose data contributions have made the analyses in this brief possible.

**Special thanks to...**

Candid (formerly Foundation Center and GuideStar), the Climate and Land Use Alliance, the Energy Foundation, the Energy Foundation China, the European Climate Foundation, the European Foundation Centre, the Institute for Climate and Society, the Mexican Climate Initiative, the OECD Centre on Philanthropy, the Rhodium Group, and many other valued global data partners.