

Program Memo: **ENVIRONMENT**

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Climate Initiative Strategy 2018-2023

For more than a decade, the Hewlett Foundation has confronted climate change, the great challenge of our time. Philanthropies, NGOs, governments, and the engaged public have made remarkable progress in reducing global greenhouse gas (GHG) emissions. When climate philanthropy began about a decade ago, the world was on track for warming of 6-8°C by the end of the century, but the combined efforts of civil society and government have cut that trajectory by half. However, this is still far from the globally-shared goal in the Paris Agreement of keeping warming well below 2°C, and emissions continue to rise in almost every sector of the economy and region of the world. The Hewlett Foundation is committed to protecting populations worldwide from preventable suffering by solving this problem.

When the Hewlett Foundation began the Climate Initiative in 2008, we pooled our charitable resources with the Packard and McKnight Foundations to create the ClimateWorks Foundation (CWF), a new foundation focused on supporting climate change policies and solutions, which would have the staff expertise and capacity to in turn establish and support a network of “Regional Climate Foundations” and “Best Practice Networks” to promote change in key sectors. Our approach emphasized least-cost solutions and focused on maximizing near-term emission reductions per dollar of expenditure. It was, fundamentally, an engineering approach that centered on technological solutions to the climate problem.

Five years later, Hewlett’s board renewed the Climate Initiative for a second five-year term (2014-2018), but shifted to a more collaborative approach, in which a larger group of philanthropies would rely on CWF to help develop strategies and provide coordination, while making grants on their own. This brought more voices—and resources—to the table, and facilitated greater cooperation and collaboration by allowing a wider range of strategic experimentation. It was accompanied by a greater emphasis on communications and public policy advocacy efforts and a renewed focus on progress in the U.N Climate Convention process.

Our board has just made a third five-year commitment to our Climate Initiative, maintaining core funding at the current level with a new and refreshed strategy. This paper will describe Hewlett’s new funding strategy and explain the process we took to arrive at it, including close and sustained consultation with grantees, philanthropic partners, and other stakeholders. It explains our theory of change, the current landscape, the role of philanthropy, and highlights both areas of continuity and shifts in priority for 2018-2023. The most significant change in our strategy is a commitment to assess all of our climate donations in light of the need for deep decarbonization by 2050. This longer time horizon and more aggressive target reflect our heightened sense of urgency about the climate change problem: the opportunity to make a difference in solving this problem is now. We must reach farther and push harder.

Our Theory of Change

The goal of the Climate Initiative remains essentially unchanged:

To limit global warming emissions enough to keep global average temperature increase well below 2°C above pre-industrial levels, in order to protect the planet from the worst effects of human-induced climate change and help promote human prosperity and health around the world.

To achieve that goal, developed countries need to accelerate their emissions reductions. In less developed countries, where millions of people aspire to emerge from poverty and improve their standards of living, GHG emissions must be expected to increase in the near term. There the goal should be to avoid the emissions of business-as-usual economic development, to ensure that these nations achieve prosperity using clean energy systems, avoiding the grave consequences of becoming major emitters.

The following fundamental logic also remains central in our strategy:

1. We should focus on mitigating climate change. The window for effective mitigation is rapidly closing, and the more we reduce future warming, the less we will need to adapt.
2. The most effective way to reduce GHG emissions is to focus on the biggest emitting countries and regions of the world: China, the United States, Europe, and India. These areas have both the largest potential gains and opportunities for spillover effects to other countries.
3. Within these countries and regions, we should focus on the highest-emitting industries and sectors, including electricity and transportation, as well as industrial processes, the built environment, and forests and land-use.
4. We can drive emissions reduction by supporting a mix of analysis, advocacy, communications, technical assistance, innovation, business sector engagement, public-private partnership, and building public support and will for policy change. This work is largely national, and includes support for international agreements.

Our Strategy Refresh Process

In addition to anticipating the conclusion of the current five-year Climate Initiative funding, many changes in the context of our work convinced us that we face an inflection point in the fight against climate change that demanded a re-examination of our strategy. Record-breaking climate events are occurring at an accelerating pace all over the world, from the floods hurricanes, and record-breaking fires of the last summer to droughts in Africa leaving millions malnourished. Temperatures are rising faster than anticipated even as emissions have remained flat. The Paris Climate Accord and the Kigali Agreement reflect unprecedented global cooperation on climate (the U.S.'s announced withdrawal from Paris notwithstanding), at the same time that nationalism is on the rise in many countries. Renewable costs are falling, and private-sector and sub-national actors continue to raise their ambition.

To understand the implications of these trends for our goals and grantmaking, we solicited input from a wide variety of sources. We commissioned an independent evaluation of our efforts to date, a synthesis of insights from climate and economic modeling, and new modeling of decarbonization pathways in the United States. We convened a workshop to collect insights from a wide array of experts outside the climate advocacy community and understand trends that will affect climate change and our efforts to confront it, and we gathered written and in-person advice and insights from key stakeholders, including other foundations, granters, regional climate foundations, grantees, and leading thinkers.

A key insight from this process is the role of long time horizons in both the climate problem and philanthropy's response. Climate models help us to understand that to keep the rise in global average temperatures to “well below” 2°C as called for by the Paris Agreement, we must cut global GHG emissions by 60% or more by 2050—something that cannot realistically happen without cutting emissions in developed countries by more than 80 percent over the same period. At the same time, we see that the progress of recent years reflects not just contemporaneous investments, but a longer history of philanthropic investment that built toward recent policy adoption. Endowed philanthropies like Hewlett have an unusual ability to provide sustained and strategic support over long time horizons.

A 2050 Lens

The dramatic emissions reductions we need will not be possible unless we shift our thinking. We must get beyond our present focus on near-term, incremental efforts that reduce emissions today, and identify the longer-term, scaled-up, step-changes needed to mitigate the climate problem. To do that, we looked farther into the future—to 2050, rather than 2025 or 2030, and asked: What will energy and economic systems need to look like in 2050 to achieve the well below 2°C goal?

It will require enormous progress in energy efficiency, decarbonization of existing energy carriers like electricity and fuels, and where needed, switching to entirely new fuels (for example, through electrification of transportation). Change on all three of these fronts will have to be rapid, simultaneous, and comprehensive. For example, the rate of improvements in emissions per dollar of GDP will have to go from less than 1% per year to more than 4% per year. Equally important, it will not be enough simply to extend current emission-reducing technologies and practices. Solving the problem will likely also require large investments in “negative emissions”—chiefly carbon capture and storage, soil carbon sequestration, and afforestation, but possibly also direct air capture or geoengineering.

Five Strategic Imperatives

Our response to these goals and challenges are governed by the following strategic imperatives:

1. **Reduce fossil fuels:** We must continue to support current efforts to peak global use of fossil fuels as early as possible, including defending recent successes in the face of highly organized political opposition.
2. **Work on energy systems:** We must pivot from narrowly focusing on specific sub-elements of the energy sector to looking for systemic shifts that are potentially transformational. For example, instead of resting on the field's success at bringing renewable electricity generation to market, we must now support work to overcome the complex, persistent, and interrelated regulatory, legal, social, and political barriers to deploying it at scale.
3. **Integrate across sectors.** The work we support needs to be more broadly integrated across different problems and solutions. For example, transforming the transportation sector will require going beyond vehicle improvement and integrating it with the electricity, information, and land-use sectors.
4. **Store carbon in the land.** Climate models suggest that nearly a third of global emissions reductions must come from managing our lands, our agriculture, and our forests. To date, only a very small share of government or philanthropic resources has gone to support this work. We must increase that amount dramatically

- 5. Promote innovation.** Climate philanthropy needs to invest more in research, analysis, and advocacy for policies that drive innovation in advanced energy systems and technologies. This includes finding ways to unlock public funding for the early stages of innovation and encouraging private investment for the commercial deployment of viable new technologies.

Areas of Continuity

The strategy refresh process reaffirmed our commitment to climate philanthropy and highlighted many successes worth celebrating and continuing. Hewlett’s clean power strategy has contributed to a fall in global coal consumption for the second consecutive year in 2016, with the largest declines in the U.S. and China, while renewable deployment has consistently exceeded expectations. We have supported successful and ambitious efforts to electrify transportation, including zero-emission vehicle (ZEV) mandates in China and California and a rising wave of internal-combustion engine bans around the world. We have seen progress in non-CO₂ gases, including facilitating the landmark Kigali Agreement on F-gases that will prevent 0.5°C of warming and regulations to reduce methane leakage in the United States. In 2016, Hewlett helped organize other foundations to donate a combined \$30 million to help catalyze the financing of solar projects in India, which leveraged matching funds from the Indian government and \$400 million from the U.S.’s Overseas Private Investment Corporation.

Our partnerships with other philanthropies and regranters have made a difference in providing much-needed strategic support and will remain strong. We intend to promote increased climate philanthropy and collaborative grantmaking with other foundations. Broadly, we remain committed to the theory of change described above, and to the need to support multinational efforts to implement national commitments and raise our shared ambitions.

New Directions

We need more, better, and bigger achievements to solve the climate problem. This will require adjusting to new circumstances, and also making more fundamental shifts. The more fundamental shifts require both integrating across current campaigns and rebalancing our portfolio to focus on longer-term institutional, structural, and systems changes. We plan to increase funding at the intersection of power and transportation and transportation and city development, rather than continue treating these as independent. We also plan to ramp up funding for cross-sector work like “negative emissions” and electrification of more economic sectors.

Over the next year, we expect to make a smooth and responsible transition to our refreshed strategy, with the transition completed in 2019. Looking across our key geographies and sectors, we expect to make the following changes:

United States. We will focus philanthropic support more on sub-national efforts (led by states, regions, utilities, businesses, and more), continue to work with the private sector on clean-energy investment, and continue our efforts to build public will for policies that address climate change and promote clean energy.

China. We will increase donations to organizations working in China, both because of its outsized importance as the highest-emitting country and because it is undergoing profound changes in its infrastructure and economy. We will support work across most sectors—power, industry, transportation, and the built environment—and will support finance and communications efforts to promote favorable clean energy policies and public and private investments in low-carbon assets and systems. We expect to support both China’s internal progress on clean energy and its international activities promoting clean energy.

India. We plan to increase our support for clean energy work in India. It is the world's third largest emitter of GHGs and is expected to move into second place by 2050. The Indian government has set ambitious national goals to ramp up renewable energy and move completely to EVs by 2030, and we will support advocacy and analysis that helps the government meet its pledges. India is also a potential role model for clean development for other rapidly developing South Asian and African nations.

Europe. We expect to maintain or slightly decrease our donations in Europe and shift our focus to supporting efforts to promote Europe as a global leader in finance, technology development and deployment, and multilateral venues. This recognizes that local efforts are increasingly receiving adequate support without us.

Electricity. We will increase our focus on supporting grantees working on electrifying new sectors and addressing interactions across economic, technical, behavioral, and political systems that effect the electricity network. This could, for example, mean supporting grantees doing advocacy for EV-charging infrastructure through investment by electric utilities, implementing new rate designs, integrating EV batteries to support grid reliability, and/or working with industry to increase the use of electricity for process heat.

Transportation and Cities. We will continue to support electrification of the vehicle fleet, including efforts to install EV charging infrastructure and integrate it into the electricity grid, improve battery technology, and develop standards to promote global markets to reduce manufacturing costs and vehicle prices. We also need to look beyond the light duty fleet and support work to address heavy trucks, aviation, and marine transport, and also look for opportunities to reduce demand.

Industry. Industry has received much less philanthropic attention than its emissions warrant. We expect to increase our funding for work on the industrial sector, especially as it is the largest source of emissions in China.

Finance/Investment. Analyses by our grantees and others in the community indicate that meeting the Paris commitments will require investing approximately \$1 trillion per year for the next several decades, ten times what's currently being spent. We will hire a Program Officer in climate finance who will develop a strategy for supporting grantees that create conditions to encourage public and private financing of climate-friendly buildings, energy technologies, and industrial and mobility systems. We will also fund work to align nations' investments in fossil energy and transportation infrastructure with clean energy and climate goals.

Technology, Innovation, and R&D. We will invest in a portfolio of efforts to support scientific and technological progress, especially carbon removal and advanced zero-emission technologies including nuclear power. This will require both risk tolerance and a willingness to embrace outcomes over a longer-than-usual time scale.