



Insights

from the Stanley Foundation's
POLICYLAB
ON CLIMATE CHANGE

Advancing Climate Policy After the Paris Agreement

By Christine Negra

April 2016



The
Stanley
Foundation

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The facilitator, Christine Negra, prepared this report following the Policy Lab. It is a summary of the insights gained from interviews she conducted in advance of and ideas generated in the Policy Lab; it is not merely a descriptive account of discussion in the Policy Lab. Neither those interviewed nor Policy Lab participants reviewed or approved the report. Therefore, it should not be assumed that they subscribe to the recommendations, observations, and conclusions included in this report.

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Executive Summary

The historic Paris Agreement has created a new landscape for collective action on global climate change. To understand the major policy needs and opportunities, the Stanley Foundation commissioned an interview-based assessment and convened a two-day Policy Lab on Climate Change to gather ideas from a diverse group of climate change experts. This paper reviews six transformational policy goals, and strategic opportunities for achieving them, which were identified as:

1. **Implementation and ratcheting up ambition of Nationally Determined Contributions (NDCs).** Build public pressure and domestic capacity to translate NDCs into specific policies, measures, financing mechanisms, and investment strategies through cross-sectoral coordination and government-to-government learning.
2. **Increased climate action by China, the European Union, and the United States.** Push for major greenhouse gas emissions reductions in these critically important players through policy and gap analysis, public diplomacy, and targeted engagement of domestic constituencies.
3. **Massive delivery and doubling of commitments by cities and companies.** Maximize subnational and nonstate climate action by evolving inclusive, flexible institutional frameworks for substantiating commitments, agreeing on impact metrics, and tracking progress.
4. **Trust building in climate finance.** Create a positive cycle of investment in on-the-ground climate mitigation and adaptation through broad agreement on a climate finance road map, safeguards, criteria for accessing funds, and a robust accountability system.
5. **Maximizing terrestrial carbon sinks.** Seize the significant near-term mitigation and adaptation potential in agriculture, forestry, and other land uses through evidence-based understanding of risks and cobenefits, integration into policies and market mechanisms, and acceleration of the sustainable commodities agenda.
6. **Achieving a less than 1.5 degree Celsius (1.5°C) global temperature increase.** Steer policies, market rules, and investment strategies away from business as usual and toward fundamentally new global arrangements that support net greenhouse gas emissions reduction in all economic sectors.

This paper puts out a call to public-, private-, and civic-sector leaders to work toward these transformational climate policy goals including joining the Stanley Foundation in supporting multilateral and multistakeholder action to limit global temperature change to 1.5°C. And, it offers guardrails to help organizations effectively pursue transformational climate policy goals such as sticking to a defined niche within targeted, outcome-oriented collaborations and investing in “terrain mapping” and mechanisms for tracking emergent risks and opportunities. A key theme throughout is the potential benefit to be gained by diversifying climate change networks across regions, scales, and disciplines.

Introduction

Following the conclusion of the 21st annual Conference of Parties (COP21) in Paris, the Web site of the United Nations Framework Convention on Climate Change (UNFCCC) proclaimed “Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius.”¹ The optimism generated by the achievement of a robust international agreement has been paired with a sober recognition of the work that lies ahead to both fulfill the commitments made at COP21 and to ratchet up ambition for future commitments in order to limit average global temperature rise to below 1.5 degrees Celsius (1.5°C).

To “unleash actions and investment towards a low carbon, resilient and sustainable future,” the Paris Agreement addresses climate change mitigation and adaptation and mechanisms for finance, loss, and damage,² transparent reporting against Nationally Determined Contributions (NDCs), and global stock taking at five-year intervals. It also recognizes the essential role for cities and other subnational governments as well as private companies and other nonstate actors.³ The agreement explicitly acknowledges the need to account for equity, sustainable development, and poverty reduction.

As the world picks up the post-Paris baton, this is an opportune moment to survey the landscape and identify the most promising investments for building a strong multilateral foundation for effective climate policy and action. In January 2016, the Stanley Foundation commissioned an assessment of the major needs and opportunities for collective action on global climate change policy, based on interviews with foundation collaborators and other senior leaders. In March 2016, the foundation convened a two-day Policy Lab on Climate Change, which brought together a diverse group of experts to refine ideas put forward in the assessment and to discuss the current policy “marketplace.” (See Annex for lists of interviewees and policy lab participants.)

This paper distills insights gained through the assessment and policy lab regarding transformational policy goals and strategic opportunities for achieving them. It also highlights potential pitfalls and recommends guardrails for collaboratively advancing climate policy. These insights and recommendations are offered to public-, private-, and civic-sector leaders as they determine their most effective contributions to global efforts to curb climate change.

Transformational Policy Goals and Strategic Opportunities

The post-COP21 era is seen as a period in which international political consensus has been achieved on the following points:

- Climate action will happen from the bottom up, and the key challenge will be converting the highly diverse set of governmental and nonstate commitments into effective, on-the-ground implementation.
- Transformation of global economic, financial, energy, and land-use systems is required, and commercial capital must be mobilized toward a new, green economy.

Having surpassed many hurdles and created new certainty for governments and businesses, COP21 was a start rather than an end to the process of addressing climate change. The policy lab culminated in identification of six transformative policy goals and related strategic opportunities for helping the world community maintain and amplify momentum.

Implementation and Ratcheting Up Ambition of NDCs

This policy goal requires translating Nationally Determined Contributions (NDCs) under the Paris Agreement into specific policies, targets, timelines, financing mechanisms, and investment strategies while keeping political leaders and their successors focused on delivering on their commitments. National commitments and ratcheting mechanisms under the UNFCCC will materialize after 2020, so there is real risk of evaporating commitment and ambition in the 2016–2019 period. Cultivating a sense of responsibility and willingness to adhere to climate commitments in the face of competing interests will depend on continued public pressure facilitated by a vigorous global nongovernmental organization (NGO) network. Ideally, these efforts will solidify broad public support for climate action such that governments and businesses are held accountable to the Paris Agreement.

Achieving this goal will require capacity building directed toward domestic, regional, and international processes and incentives that reward countries that “reduce and report.” Part of this near-term imperative involves getting national governments and other jurisdictions on the same page about what has actually been pledged. Many of the national pledges made at earlier COPs have likely been bundled into NDCs,⁴ although possibly on different timelines, requiring increased clarity in some cases. Platforms that enable shared learning within and across nations and sectors will be key to accelerating progress. Innovative approaches to integrating climate mitigation, adaptation, and development objectives are likely to gain the greatest traction.

In the post-COP21 era, the playing field will be highly fragmented, with climate leadership spread across almost 200 countries. While individual NDCs represent a quite different magnitude of the climate mitigation challenge, increasing ambition and actual implementation will need to happen systematically on a country-by-country basis, and

Diversifying Institutions and Networks

In seeking transformation toward a green global economy, design of governance structures in the wake of COP21 will benefit from rich engagement by representatives from diverse geographies, sectors, and levels of government. This is relevant for formal UN processes and design of institutional mechanisms as well as the quasi-formal coalitions that influence the United Nations.

Building a “bottom-up ready” United Nations would foster new institutional models through which UN agencies would effectively deliver coordinated support for decentralized climate action through a more diverse set of organizational partnerships. This involves forging better links across climate-focused elements of the United Nations (e.g., interconnected support for implementation of the Paris Agreement and the Sustainable Development Goals). Adjusting mindsets and mechanisms will be important to make room for subnational and nonstate leadership through inclusive rule design (e.g., diverse membership for committees and coalition task teams) that results in consistent criteria for fair access to climate finance and transparent reporting and review processes. UN-mediated mechanisms for climate action should accommodate diverse regional needs (e.g., resonance between NDC priorities and access to criteria for multilateral climate finance).

To ensure global relevance, efforts are needed to diversify UN-focused coalitions and networks through better integration of the Global South (e.g., developing widely accepted and actionable definitions of equity). Activities and tactics can promote cultural shifts within networks to better accommodate the inherent diversity among the many different communities that will deliver climate action (e.g., meeting design focused on multicultural social dynamics).

the required strategies are not fully understood. Certain countries will garner support for NDC implementation from many organizations, while other countries may languish, undermining overall global progress. Delivering support for NDC implementation will require effective coordination through coalitions, which will need to develop solid and long-term institutional frameworks for linking and convening members, establishing new partnerships, supporting policy development, and monitoring on-the-ground practice.

On the path to implementation and increased ambition, the intergovernmental process will need to concern itself with the design of institutions with new mandates and newly created institutions.⁵ Key agencies of the United Nations will have new leadership (e.g., UNFCCC, United Nations Environment Programme, and UN secretary-general). Unlike the Kyoto process, which had specific top-down compliance mechanisms, the Paris Agreement does not call on the UNFCCC to craft detailed prescriptions. Rather, it will manage ratification mechanisms for rules that emerge from on-the-ground experience as well as reporting and review of climate actions designed and implemented in countries and markets.

Steering toward low-carbon economic development will involve including cost-effective mitigation and adaptation interventions in policies and investment plans, supported by climate finance, technology-sharing platforms, scalable innovation systems, and governance arrangements for national, subnational, and market-based action. To achieve tangible national progress, governments have many tools they can use for shifting the playing field, including public procurement, tax policy, trade policy, and subsidy reform.

COP21 stimulated development of NDCs and then set out mechanisms to support implementation. The Paris Agreement is particularly strong in describing mandatory, specific monitoring, reporting, and verification (MRV) institutional arrangements. Establishment of international MRV infrastructure necessitates creation of national-level MRV capacity and infrastructure. In the near term, buildout of the MRV and five-year review processes under the UNFCCC, as well as other reporting systems (e.g., Carbon Disclosure Project), will require attention to ensure robust, timely reporting on policies, actions, and greenhouse gas (GHG) emissions.

To foster a dynamic cycle of increasingly ambitious commitments beyond the NDCs, the agreement

specifies platforms and procedures for countries to set longer-term targets, including creation of a global stock-taking prototype by 2020. The stock-taking process is intended to create conditions at the national level that drive increased ambition. Informing domestic policy contexts will require leveraging science, experience (e.g., cost-effective approaches), emerging technological opportunities, and drivers for low-cost mitigation opportunities.

This ratcheting up process is likely to encounter echoes of the long-standing schism around common but differentiated responsibilities,⁶ which was updated at COP21 to incorporate the principle of equity. Developing countries will be focused on ensuring fair and equitable outcomes and balancing mitigation and adaptation in the means of implementation. Despite efforts coming out of the 2015 Lima COP, there is limited experience in tracking fairness and equity. An analytical, evidence-based approach to defining what fairness means and careful translation between multilateral and national levels will be needed to communicate and calibrate expectations.⁷

Countries will need help in determining which sectors offer the most cost-effective mitigation and adaptation investment opportunities and then in developing methodologies for verifying emissions reductions accruing from policy interventions (e.g., energy efficiency performance standards). These challenges will be most easily met through effective interministerial coordination that produces long-term policies that send consistent signals.

Just as one-size-fits-all programs are unlikely to produce optimal mitigation investments, adaptation projects are complicated social and economic experiments that will benefit from focus on scalable innovation systems that draw on a wide range of interventions rather than single replicable technologies. There are many good climate adaptation experiments on the ground; the key is for governments to learn from these efforts in implementing their adaptation strategies.

Strategic opportunities include:

- Continuing public pressure for increased climate ambition facilitated by a vigorous global NGO network.
- Engaging and showcasing leading nations (e.g., BRICS summit, Climate Vulnerable Forum) with

Learning Networks

Implementing mitigation and adaptation plans can be greatly facilitated by regional and sectoral exchanges of best practices through formal and informal networks. South-South exchange through regional problem-solving dialogues can be useful for practitioners as well as a venue for multilateral agencies to understand specific challenges and needs.

Commonly, learning networks rely on self-designated intermediaries who are skilled in making the linkages between policy, research, and practice that spark innovation and scaling. These intermediaries emerge from a diverse mix of institutions, including businesses, consultancies, NGOs, and academia. Formal funding is not generally accessible for this intermediary function, yet this represents significant potential for accelerating breakthroughs in development of regional or sectoral innovation systems.

Given that many mitigation and adaptation strategies will rely on widespread adoption of new practices or technologies by millions of people, lessons on scaling from fields such as health care, water management, urban planning, and agricultural innovation may be instructive. These fields also confront perennial complexity, uncertainty, disruption, and volatility.

Trading Mitigation

In the absence of an overarching framework for climate action (e.g., a global carbon price), the bottom-up approach enshrined in the Paris Agreement makes it likely that sets of countries with complementary interests will develop modes for voluntary cooperation. This may be particularly true among industrialized countries that recognize the importance of creating a harmonized platform through which companies and financial institutions can usefully contribute.

Under Article 6 of the Paris Agreement, countries can meet their NDC targets by transferring “mitigation outcomes” internationally through emissions trading or results-based payments. This allows for pools or clubs among countries, but these clubs will need to develop rules and methodologies governing mitigation outcomes that span multiple jurisdictions. Tradable mitigation outcomes will need to be measurable, comparable, and fungible (i.e., functioning as a currency) without imposing insurmountable MRV expectations. Work will be needed to define the institutions and services needed for well-functioning carbon clubs as well as mechanisms for accelerating ambition among club members through trading based on lowest-cost mitigation opportunities.

While not all countries will choose to participate in carbon markets, the ones that do will need help navigating what will likely become a very rapidly changing arena. Subnational governments are also likely to engage in carbon clubs. As different jurisdictions join clubs and make other trading arrangements, the complicated and dynamic system that results may necessitate global rules.

emphasis on integration of climate mitigation, adaptation, and development objectives.

- Building domestic capacity for technical, financial, and legal dimensions within a broad set of countries, including cross-sectoral coordination mechanisms.
- Supporting mutual learning and coordination among national governments (e.g., regional dialogues).
- Establishing systems that link evaluation of NDC progress (including self-assessment) with access to technical and financial support.
- Promoting synergy between NDCs and commitments by subnational jurisdictions and nonstate actors.

Increased Climate Action by China, the European Union, and the United States

This policy goal recognizes the outsized importance of China, the European Union (EU), and the United States in maintaining global momentum toward climate action. It relies on public diplomacy and targeted engagement of domestic constituencies. More than the other policy goals discussed in this paper, progress toward this goal will depend to a greater degree on granular analysis of specific policy and finance strategies. Success will rely on effectively navigating complex political contexts to foster domestic and bilateral agreement on optimal pathways. This will likely require targeted capacity building and tactical convening (e.g., coalitions, events).

In the Kyoto Protocol era, many countries hedged on climate action based on US signals. COP21 broke this dynamic, yet progress toward climate action by the United States is very important to maintaining global momentum (especially in relation to China’s ambition). The Clean Power Plan (CPP) and renewable energy are central pillars of US climate action that have been attacked as economically punishing for disadvantaged communities. In the event that the 2016 election results in a climate-skeptic president taking office, subnational and nonstate action will be under tremendous pressure and unsupported by federal programs. Mobilizing coalitions to engage center right constituencies more usefully in climate policy and clean energy represents

an important way to maintain US climate progress. Mobilization work could focus on the national security community, faith leaders, community development organizations, and others to build a strong constituency for action.

Strategic opportunities for increasing climate action by China, the EU, and the United States include:

- Undertaking granular NDC gap analysis for these critically important players focused on capacity and financing, assessing the implications of US-China climate alliance, and supporting bilateral engagement.
- More fully characterizing carbon pricing, taxes, cap-and-trade, and other policy mechanisms emissions and promoting convergence toward high-integrity implementation.
- Orchestrating bi- and multilateral engagement among leaders from China, the EU, and the United States to encourage high-level policy alignment.
- In China, encouraging establishment of emissions trading and an absolute emission reduction target and advancing the sustainable commodities agenda given high dependence on commodity imports for food security and economic growth.
- In the European Union, boosting public support for a 45 percent emissions reductions target by 2020, complemented by analysis and learning exchange for lessons from the EU Emissions Trading System and effective climate leadership strategies.
- In the United States, supporting Clean Power Plan (CPP) implementation, renewable energy, and climate legislation with emphasis on subnational and nonstate action and mobilizing coalitions among national security, faith, social justice, youth, trade unions, and other communities.

Massive Delivery and Doubling of Commitments by Cities and Companies

This policy goal recognizes the international consensus on a decentralized, cross-sectoral approach to climate action and requires amplifying subnational and nonstate action. As a practical matter, this goal seeks to convert pledges from political and business leaders into time-bound targets and financing strategies through public pressure, capacity building, and viable MRV systems, within UN-mediated frameworks and beyond. Synergy between NDCs and commitments by subnational jurisdictions and nonstate actors have potential to accelerate progress.⁸

Success may be facilitated by the greater agility of cities and companies relative to national governments and heavily negotiated UN mechanisms. Pursuit of this policy goal may emphasize those sectors and geographies that present the largest mitigation potential or the greatest as-yet untapped constituencies. Given the voluntary nature of subnational and nonstate commitments, a key challenge will be creating sufficient incentive for highly diverse actors to report on common impact metrics through high-credibility tracking systems.

Technology Sharing

Technology-sharing platforms can facilitate public and private sector investment in low emissions infrastructure. Given the urgency of the global mitigation challenge, existing technology-sharing platforms are not yet sufficient to create awareness within countries and companies that are poised for significant infrastructure development of the growing array of mitigation technologies.

National technology roadmaps developed for COP21 spurred improved domestic cooperation, knowledge, and capacity for technology needs assessment. However, if waves of infrastructure investment are to manifest into a low-carbon growth model, political and corporate decision makers need ways to more quickly gain fluency in low-emissions technology options. Improved technology-sharing can translate into opportunities for governments, to deploy optimal technological solutions, and for technology companies, to expand markets and accelerate technology introduction.

UNFCCC efforts to mobilize nonstate actors, including businesses and local authorities, through the Lima to Paris Action Agenda (LPAA) received significant investment, and these were helpful in catalyzing governments toward commitments. Post-COP21, institutions will be needed to track the many decentralized partnerships. "Recognizing engagement of all levels of government" is part of the Paris Agreement, and the United Nations will be challenged to develop an inclusive process that engages subnational governments and nonstate actors as programmatic partners.

Given the tremendous economic power and technical capacity of major global cities, these jurisdictions can offer lessons to their counterparts through UN platforms. Cities and other subnational jurisdictions were very visible at COP21, and many are poised to take leadership on climate action in the post-COP21 era. City governments are often more trusted than national governments, giving them access to the public support they need to make climate-related investments and provide inspiration for federal government action. But public support needs to be cultivated through robust media and community engagement.

Credible, visible, global comparisons of bottom-up mitigation progress will be an important buttress to public accountability. With regard to accountability mechanisms for commitments made by subnational jurisdictions, this is new terrain to be scouted. Many subnational jurisdictions are challenged by weak governance and mechanisms to promote continuity of progress. There is a need to develop governance systems for concretizing ambitions through frameworks that facilitate information exchange, sectoral and thematic cooperation, and development of best practices. It may be difficult to task the UNFCCC with monitoring and accountability for subnational climate commitments given their sheer number and diversity. Subnational jurisdictions will need outreach, education, and support to deliver on their commitments.

Gaps between national and subnational governments on climate action need attention. Leadership by cities and states or provinces is not always reflected in national-level political discourse or law making. Cities commonly track federal government actions but do not always engage in political processes. To avoid conflicts between national and subnational climate strategies and tactics, it will be necessary to facilitate engagement within countries such that national policies and subnational initiatives are harmonized. In particular, it will be important to

clarify how ambitions and achievements of subnational jurisdictions should be counted toward national targets.

In the lead up to the Paris Agreement, the climate commitments of CEOs helped to build momentum, however few specified near-term timelines. While there are notable exceptions, climate action by individual companies, even large players, is greatly limited by the rules of the road of the globalized economy. The business case for sustainability will rarely outweigh business-as-usual incentives in which pollution, deforestation, and other externalities are free or low cost. Even among companies that have made a commitment to reduce and report on GHG emissions, net reduction in company-wide emissions is not common.⁹ This suggests that more fundamental shifts in companies' operating modes will be needed if they are serious about decoupling emissions intensity from profitability.¹⁰ Companies commonly have chief sustainability officers who know how to carry forward an agenda but rarely invest in educating and mobilizing their customer base around sustainability shifts, although this could be valuable for mitigating shareholder discomfort.

Strategic opportunities for promoting massive delivery and doubling of commitments by cities and companies include:

- Substantiating subnational and nonstate commitments (e.g., LPAA; Under 2 MOU; RE100), agreeing on impact metrics (GHG reduction, finance, etc.), and tracking decentralized partnerships.
- Evolving inclusive, flexible institutional frameworks for broader, deeper participation by subnational and nonstate actors with increased leadership from the Global South.¹¹
- Addressing capacity gaps in underserved, high-emissions sectors, recognizing innovation (e.g., prizes), and showcasing economic and employment potential to activate new constituencies.
- Marshaling delivery and acceleration of corporate commitments, including brokering public-private partnership-based deals for mitigation projects, including early stage feasibility assessment.
- Capitalizing on agility of voluntary coalitions to make faster progress in defining MRV frameworks.

Commercial Capital

To shift from policy debates to implementation, commercial capital needs to be mobilized toward climate action. COP21 explicitly called for alignment of global financial flows with mitigation targets. This can serve as a mandate for institutional investors to integrate climate considerations into their investment strategies (e.g., climate event risk, regulatory risk). Experience gained through divestment movements and early experiments in sustainable finance can be instructive for the financial community.

Climate change presents a risk that any new capital asset faces similar to credit risk, currency risk, technology risk, and policy risk (e.g., asset appropriation). Normally, risks are converted into financial costs either for risk-reduction activities or insurance (i.e., a third party is paid to take on risk). With the exception of insurance and reinsurance companies, most financial institutions (e.g., banks and pension funds) have limited ability to detect and mitigate climate-related risks to their portfolios, although awareness is beginning to grow.

Some large financial institutions are starting to make commitments to climate finance. However, their climate-project pipeline may be dominated by financing to large, established companies (e.g., utility-scale projects, pooling energy efficiency). It's unclear the extent to which these institutions have built internal expertise for transformative investments in the energy or land sectors.

As multilateral climate finance mechanisms solidify, there is room for increased dialogue about mainstreaming climate across the array of potential players in financing climate action, including commercial banks, development banks (the latter will be key implementers of the Green Climate Fund), national governments, and alternative-energy and other technology companies.

A Climate Finance Road Map

With \$100 billion in commitments toward climate finance, a road map is needed that sets out priorities (i.e., across sectors, balancing mitigation and adaptation) and anticipates their implications. Given the push to rapidly scale up financial flows, there may be a bias toward ready-to-go projects with low potential for transformative outcomes or larger projects in low-risk countries and away from riskier projects or smaller, higher vulnerability countries. Mechanisms will be needed for bundling smaller projects (e.g., through national development banks willing to invest beyond their borders) and advancing high-risk, high-return projects. Rules will be needed to govern accounting methodologies and reporting financial flows to and from countries.

- Building appetite and capacity within financial and other institutions for screening GHG emissions and climate risk from their portfolios and targeting climate-smart investments.

Trust Building in Climate Finance

This policy goal seeks establishment of a robust, transparent accountability system (i.e., rules, methodologies, reporting financial flows) that creates a positive cycle of investment in on-the-ground climate mitigation and adaptation. It recognizes that if unmoored from essential tenets of sustainable development, climate finance will, at minimum, generate social friction that degrades reputational benefits for green investors. It also risks facilitating major investments with significant perverse outcomes for the communities and ecosystems that climate action is meant to protect.

Trust building will depend on clearly agreed on and communicated priorities and roles among leading financial institutions, anchored in credible, equitable governance systems. Allocation of public funds will involve delicately balancing risky (e.g., break-through technologies) or long-term investments (e.g., low-carbon economic transitions) with investments that produce near-term benefits for established constituencies or vulnerable populations. Transparent monitoring and reporting will be a cornerstone of any trusted climate finance program. This will be particularly important given the imperative to aggregate smaller climate investments in order to attract major financial actors, which are set up to work with deals over \$100 million. As climate-focused investing gains traction among private financial institutions, a counterpart effort spanning all economic sectors will be needed to develop a pipeline of transformational, investable projects.

Public-and private-sector financing will be needed to fuel action toward NDC commitments, but neither the mechanisms for steering financial flows toward NDC implementation nor the safeguards to ensure transparency are well developed. The multilateral Green Climate Fund (GCF) will be essential to jump-starting climate action.¹² There is some risk that funds flowing through multilateral platforms will be disproportionately allocated to readiness activities rather than on-the-ground projects. Also, resources for national capacity building related to the Paris Agreement will be available through multilateral agencies (e.g., Global Environment Facility, United Nations, World Bank), however,

pressure to quickly disburse funds may incentivize these organizations to allocate funds mechanistically rather than in ways that are responsive to national circumstances. It is important to avoid placing too much emphasis on external consultants rather than on training in-country experts who would, over time, reduce the need for ongoing capacity investments.

Allocation of capacity-building funds should take into account where the biggest mitigation opportunities lie. For example, a number of major emerging economies (e.g., Peru, Colombia, Costa Rica, Chile, Vietnam, Malaysia) have capacity gaps but would not be eligible for forms of assistance reserved for poorer, more vulnerable countries (which may not be significant GHG emitters). Part of capacity building involves understanding how the financial world works and how to attract financing so that national and subnational governments are positioned to directly access international funds (e.g., GCF, Adaptation Fund) rather than only going through a multilateral agency.

While public and philanthropic funds are essential to kick-starting low-carbon growth, the bulk of needed investments will be in the private sector. Shared understanding of a low-emissions future in energy, agriculture, and other sectors is a critical precursor to real shifts in financial flows. More convening is needed to bring private-sector and state actors together to develop climate solutions that also represent business opportunities. To show what is possible and give inspiration, the public sector can point toward best practices (e.g., demonstrate new technologies in public projects) and showcase opportunities for investment in innovation, recognizing that companies need to work in an economically favorable environment.

Less developed countries represent significant future GHG emissions that can be avoided through low-emissions growth strategies, but given pressing health, employment, and environmental challenges, mitigation activities that generate cobenefits will take precedence. Advancing cost-effective GHG emissions reductions (e.g., those that have a short payback period) requires breaking through inertia by demonstrating win-win opportunities and viable financial models. As cobenefits of GHG reduction strategies materialize, public appetite may increase for public investment and regulatory approaches, which can advance mitigation projects with longer payback periods.

A Consistent Vision for Public Funds

In setting criteria for how the GCF and other multilateral funds can be used and articulating key steps toward allocation of funds, careful thinking and convening is needed to foster a consistent vision. The GCF is intended to support transformative, risk-taking investments. Policies related to the GCF are developed on a consensus basis, and countries may feel a disincentive for setting ambitious rules that could make it harder for them to receive GCF resources. The potential for GCF rule making to be mired in politics and self-interest needs to be offset by tactical engagement of entities that have a real stake in the outcomes (i.e., GCF board members, industry players, mayors).

Public-private Pre-investment

Effective public-private partnerships (PPPs) will be important in many countries, requiring close exchange and working relationships among key players as well as early financing to support planning and feasibility studies for specific projects. Although only a small percentage of total project costs, such viability and bankability studies commonly hit a funding bottleneck. Pre-investment facilities are being initiated based on the expectation that once a project pipeline has been created, commercial investment will flow. In reality, the project development process needs to align the interests of various levels of government, technology companies, financial institutions, and community organizations and therefore will rarely follow a “cookie cutter” model or a rapid timetable.

Some mitigation investments identified in NDCs will involve costs that exceed national capacity or self-interest to bear, and countries may look to carbon-offset markets as sources of finance for these more expensive GHG reduction strategies. A potential pitfall of this approach is the inherent drive of markets toward lowest cost options and the potential for undermining developing country mitigation ambitions. Appropriate market rules and leadership by powerful market players may reduce this risk.¹³

Another critical arena will be getting the right policies in place to guide financial flows toward increased climate resilience. As a public good, resilience may not be well represented in financial models (e.g., generates few short-term returns to investors), so public investment plans will need to include screening for climate risk and attention to resilience.¹⁴

An important part of climate finance rule making involves establishing governance systems and human rights protections that safeguard against climate mitigation incurring negative effects on local communities. Development of more granular guidance for operationalizing human rights within climate finance and mainstreaming these considerations into standards and operating procedures of participating institutions can usefully draw on human rights experts but will require dedicated funding.

Strategic opportunities for building trust in climate finance include:

- Developing a road map that sets out finance priorities (i.e., across sectors, balancing mitigation and adaptation), provides definitions, and prescribes integration of human rights into standards and operating procedures of climate finance institutions.
- Setting criteria for use of GCF and other multilateral funds (e.g., transformative, risk-taking investments; targeted to most vulnerable nations) and articulating an allocation process.
- Protecting GCF rule making from political self-interest through tactical engagement of entities that have a real stake in the outcomes (e.g., GCF board members, industry players, mayors).
- Piloting a comprehensive tracking system that follows financing from source to outcomes for all public climate finance.

- Testing mechanisms for bundling smaller projects (e.g., through national development banks willing to invest beyond their borders) and advancing high-risk, high-return projects.
- Promoting climate risk assessment and disclosure by public and private entities, facilitating business-government dialogues, and encouraging divestment/green investment.
- Allocating revenue from carbon market schemes to low-carbon development projects and pursuing new climate finance sources (e.g., airline passenger levy).

Maximizing Terrestrial Carbon Sinks

This policy goal seeks to resolve the disconnect between the low visibility of agriculture, forestry, and other land uses in UNFCCC deliberations and their significant near-term mitigation and adaptation potential and broad inclusion in NDCs.¹⁵ In many agricultural, forested, and peri-urban ecosystems, land-based mitigation techniques offer significant cobenefits, such as improved crop yields; better access to food, fuel, and fiber; and greater resilience to extreme weather. Efforts to direct resources toward terrestrial mitigation can target nascent financial mechanisms (e.g., green bonds) and relevant components of the Paris Agreement and draw upon diverse experience around the world in land-use policy, offset markets, and sustainability certification.

There has been substantial experience with many dimensions of forest-based carbon-offset credits, and advocates continue to explore ways to boost demand. For example, a coalition of NGOs has recently proposed linking mitigation in the aviation sector to reducing emissions from deforestation and forest degradation (REDD).¹⁶ Seizing the mitigation opportunities presented by avoided deforestation and improved forest management requires convergence on solutions that address market incentives and communities' tenure rights by integrating lessons gained in early REDD-style experiments as well as progress in MRV.

Improving land-use and natural-resource management represents an important arena for expanded attention given the significant potential of agricultural mitigation combined with widespread awareness of the need to safeguard food security. The land sector offers a dizzying array of potential mitigation opportunities, although the absence of one-size fits-all solutions complicates

Sustainable Commodities

Mitigation in the land sector is strongly linked to commodity markets (e.g., beef, soy, paper and pulp, biofuels), that encourage deforestation and poor soil management. Frontrunner companies have committed to zero deforestation supply chains by 2020, but these represent only a fraction of companies in the "deforestation economy." A major opportunity exists to advance the sustainable commodities agenda in China and India, which are highly dependent on commodity imports for food security and economic growth.

global policy advances.¹⁷ National policy (e.g., agricultural subsidies, research and development budgets, land-tenure rules) strongly influences the adoption of agricultural best practices that are commonly associated with net reduction in GHG emissions at the farm and landscape scale.¹⁸

Strategic opportunities for maximizing terrestrial carbon sinks include:

- Embedding land-based mitigation into buildout of the Paris Agreement (i.e., Articles 5 and 6).
- Convening climate-smart agriculture stakeholders to explore incentives and create a shared narrative for cobenefits of land-based mitigation and socioeconomic development.
- Integrating high-credibility, land-based mitigation into NDC targets, regulated carbon markets (e.g., offsets), green bond certification, climate finance, and other mechanisms.
- Incorporating climate considerations into land-use policies (e.g., subsidies, insurance programs), fostering agricultural diversification, and promoting carbon sinks on public lands.
- Resolving conflicts between communities' tenure rights and market-based approaches to the avoidance of deforestation and the improvement of forest management.
- Engaging the public in sustainable commodities (e.g., increase market signals for climate-smart agriculture) and company commitments to zero deforestation supply chains.

Achieving a Less Than 1.5 Degree Celsius Global Temperature Increase

This policy goal emerges from the widespread understanding that full implementation of all NDCs would not limit average global temperature increase to less than 2 degrees Celsius and that a less than 1.5 degree target is greatly preferred for reducing climate-related risks to acceptable levels. Emphasis is on achieving climate change mitigation necessary for long-term human survival rather than what is politically feasible. Of all the policy goals discussed in this paper, this one represents the most profound commitment to steering away from business as usual and toward fundamentally new global arrangements. It is grounded in moral and ethical responses to the existential threat posed by climate change to many populated land areas, to some nation states, and to many terrestrial and aquatic species.

To move beyond the current set of climate commitments and agreed mechanisms and seize the full suite of available mitigation opportunities will require redirecting policies, market rules, and investment strategies to reduce net GHG emissions in all economic sectors by incentivizing clean energy, green infrastructure and supply chains, and sustainable agriculture and forestry. There is untapped potential for advancing

essential GHG reduction pathways that have significant cobenefits (e.g., land-based mitigation, low-carbon economic development) but currently have low visibility in policy and finance. It may be possible to expand what is seen to be politically necessary by articulating links between climate equity, regional and global security (e.g., reduced societal stability with increasing climate impacts in vulnerable regions), and global health (e.g., climate-related increase in disease risks).

Achieving a less than 1.5 degree limit will require mobilization of all stakeholders and formation of novel partnerships. In addition to deep technological and economic transformation, success will depend on broad adoption of new mindsets, lifestyles, and governance models across many different communities. To develop insight into potential openings for the profound shifts in global arrangements necessary for achieving a less than 1.5 degree limit, predictive models and scenarios can be used to envision beneficial overall outcomes and best practices for pursuing them through heterogeneous, decentralized climate action.¹⁹

Accelerating learning across governments, sectors, and geographies will be key for illuminating radical, transformative pathways to a 1.5 degree world. Targeted analytical work will be needed to bridge the gap between slower scientific processes and social movements seeking rapid and transformative action. This policy goal is likely to enter terrain of poorly characterized, weakly tested climate solutions. It will require clarifying the safest, most effective, and most cost-effective GHG removal options, and linking these to governance systems and mechanisms for risk mitigation and sharing.

During COP21, Bill Gates published a commentary calling for high-net-worth individuals to step up to investments in developing break-through climate technologies since this is an arena where commercial banks have not engaged. Large-scale research and development investment by this type of agile investor may be required given derisking requirements faced by many financial institutions. As viable mitigation and adaptation technologies are tested in developed countries and markets mature, which will drive down costs, less developed economies can gain access. However, without credible governance mechanisms for vetting advanced climate technologies at multiple stages of development, there will be high risk of public skepticism and backlash, not to mention actual material harm to people, ecosystems, and infrastructure. This is

Deep Decarbonization

Deep economic decarbonization is a central feature of any transition toward a less than 1.5 degree world. A global carbon price has been proposed as the quickest and least expensive path to deep decarbonization by incentivizing adoption of existing and emerging low- and zero-emissions technologies. However, political support has not materialized for this type of top-down global solution. Current policy and market signals largely encourage continued reliance on fossil fuels, yet in order for global average temperatures to stay below a 1.5 degree Celsius rise, much of the fossil fuels remaining in the ground can never be extracted. This requires changing the calculus for financial institutions and investors so that they place their bets on a future energy economy based on renewables and efficiency. Fossil fuel-dependent economies need decoupling strategies, including shifting incentives for energy utilities. Less developed economies need low carbon economic growth strategies. Emerging economies need green infrastructure investments plans.

especially true for investments in geoengineering for which evidence-based, neutral convening can provide a solid footing for investigating risks and opportunities.²⁰ Exploration of radical, transformative pathways for emissions reduction and removal is likely to require many course corrections and willingness to abandon projects that are shown to have low potential.

Strategic opportunities for pursuing a less than 1.5 degree Celsius global temperature change include:

- Convening dialogues among thought leaders focused on the moral and ethical dimensions of unmitigated climate change and new governance concepts (e.g., subnational governments in the lead).
- Using models to determine cost-effective GHG reduction pathways and cobenefits, at scales relevant to subnational jurisdictions, and developing scenarios (e.g., backcasting) to identify viable global arrangements to achieve them.
- Evaluating responsible GHG-negative technologies, incentivizing finance for technology breakthroughs, and promoting national carbon sinks.
- Building social movements around visions and transition pathways for sustainable lifestyles and reduced consumption and aligning climate action with the 2018 Intergovernmental Panel on Climate Change's special report on the impacts of global warming of 1.5 degrees Celsius above preindustrial levels and related global greenhouse gas emission pathways.
- Developing strategic communications focused on loss (e.g., species, land areas, nation states).

Picking Up the Baton

Advancing these six transformational climate policy goals will require concerted effort by a highly diverse set of organizations and coalitions operating across all sectors and geographies.

A Strategic Opportunity for the Stanley Foundation

In selecting a defined policy goal around which to orient its climate change programming, the Stanley Foundation applies a set of filters or criteria to the broad set of strategic opportunities:

- **Deep policy impact.** Does the policy goal represent deep, long-term policy impact achieved through cumulative progress with principled, multilateral cooperation?
- **Uncharted terrain.** Do the paths leading to achievement of the policy goal require improved mapping (e.g., through stakeholder engagement, commissioned analyses) before progress will accelerate?
- **Catalytic collaborations.** Will progress toward the policy goal be best achieved through catalytic collaborations and coalition building focused on strengthening collective action on global climate change policy?
- **Multilateral and multistakeholder engagement.** Is support to multilateral and multistakeholder engagement among governmental and nonstate actors at global, national, and subnational levels essential to achieving the policy goal?
- **Shifting the narrative.** Does progress toward the policy goal require a shift in prevailing narrative(s) in order to reveal opportunities or break through inertia?
- **Agility and risk-tolerance.** Is there an essential role for an agile, risk tolerant convening organization in overcoming barriers to the policy goal?

By applying these criteria to the six climate policy goals described above, the Stanley Foundation has resolved to pursue the following real-world outcome through the foundation's climate change programming:

The global average temperature is limited to a 1.5 degrees Celsius increase above the preindustrial era through stakeholders at all levels taking global collective action to determine and pursue transformational pathways to reducing and removing greenhouse gas emissions.

While this encompasses many elements of the other five policy goals, emphasis will be on promoting more fundamental transformation of global arrangements (rather than what is politically feasible in the nearterm) and helping to construct the multilateral governance platforms that will be needed.

In pursuit of this goal, the foundation's programming strategy will focus on three areas in immediate need of policy progress and multilateral action:

- Advancing the determination of necessary transformational pathways so as to inspire policy development and action that make a 1.5°C target achievable.
- Encouraging sub- and nonstate actors to be on the leading edge of identifying and pursuing necessary transformational pathways to limit warming to 1.5°C.
- Fostering cooperation between and among advocates, sub- and nonstate actors, and the policymaking community as they innovate on the most challenging transformational pathways to 1.5°C.

A Call to Climate Change Networks

All of the transformational climate policy goals below will need passionate dedication from public- private-, and civic-sector leaders collaborating through climate change networks. In addition to joining the Stanley Foundation in support of multilateral and multistakeholder action to limit the global temperature increase to 1.5°C, other strategic opportunities include:

1. **Implementation and ratcheting up ambition of NDCs.** Build public pressure and domestic capacity to translate NDCs into specific policies, measures, financing mechanisms, and investment strategies through cross-sectoral coordination and government-to-government learning.
2. **Increased climate action by China, the EU, and the United States.** Push for major GHG emissions reductions in these critically important players through policy and gap analysis, public diplomacy, and targeted engagement of domestic constituencies.
3. **Massive delivery and doubling of commitments by cities and companies.** Maximize subnational and nonstate climate action by evolving inclusive, flexible institutional frameworks for substantiating commitments, agreeing on impact metrics, and tracking progress.
4. **Trust building in climate finance.** Create a positive cycle of investment in on-the-ground climate mitigation and adaptation through broad agreement on a climate finance road map, safeguards, criteria for accessing funds, and a robust accountability system.
5. **Maximizing terrestrial carbon sinks.** Seize the significant near-term mitigation and adaptation potential in agriculture, forestry, and other land uses through evidence-based understanding of risks and cobenefits, integration into policies and market mechanisms, and acceleration of the sustainable commodities agenda.

Pitfalls and Guardrails for Advancing Climate Policy

Given the urgency and magnitude of the climate change challenge, efficient and effective collaboration will be essential as key actors apply their collective energy toward transformational climate policy goals.

What Pitfalls Might Be Encountered in Advancing Climate Policy?

Too narrow? Given that the Paris Agreement specifies processes focused on implementation of NDCs—which represent climate action that is currently considered politically feasible—many organizations may find themselves fully occupied with advancing these processes, resulting in too little investment overall in profoundly transformative climate action.

Or too broad? Given the widespread understanding that full NDC implementation will fall far short of a less than 1.5°C limit, many organizations could feel compelled to allocate their energy and resources toward well-defined, near-term processes, ambiguous long-term investments, and everything in between, risking ineffectiveness on all fronts.

Analysis paralysis? Given the knowledge gaps and uncharted terrain to be found throughout the climate change policy landscape, many organizations may struggle to determine how much time and attention to put toward investigating strategic opportunities before advancing to actual projects, potentially missing out on lessons and policy openings that emerge from more iterative engagement and analysis.

Or leaping too soon? Given the short time horizon for mobilizing the necessary level of climate action, many organizations may feel pushed toward advocacy of specific solutions based on conventional wisdom or donor interest before they cultivate the necessary technical expertise and political fluency to be credible and effective.

Staying in silos. Whether due to habit, pressure for rapid action, limited staff resources, or other factors, many organizations have a natural tendency to collaborate with partners with similar cultural backgrounds, reinforcing patterns of unequal participation by the Global South in international dialogues and multilateral processes and, as a consequence, diminishing their global relevance.

What Guardrails May Help Organizations to Maximize Their Impact?

Pick a lane. Progress in global climate policy depends on a useful distribution of organizations focused across the full suite of policy goals and strategic opportunities—ranging from near-term, politically feasible to long-term, blue sky—based on their unique niche. Organizations may benefit from internal mechanisms that help them define and stay focused on their priority geographies, technical issues, and constituencies.

Contingent approach. At the same time, given the dynamic and fragmented landscape of climate policy, it may be advisable to combine targeted, results-oriented programs with an adaptive strategy that recognizes the difficulty in precisely anticipating outcomes from project activities implemented in complex policy arenas. A contingent approach relies on mechanisms for tracking the many different influencers that can accelerate or disrupt plans for climate progress and for routinely considering tactical shifts.

Invest in “terrain mapping.” Given the likelihood of operating in fragmented or poorly characterized policy and governance arenas, as well as the value of anchoring transformative policy goals in solid analysis of the best available evidence, “terrain mapping” activities will ideally be part of organizations’ work plans.

Undertake analysis. Organizations that invest in filling carefully considered information needs will be in better position to navigate toward their objectives. For example, some likely arenas for targeted analytic work include:

- **High-priority geographies.** Granular level analysis of the gap between current capacity and NDC commitments for critically important countries (e.g., Brazil, China, India, and the United States) could focus on financing and human capital needs.²¹
- **Key sectors.** Filling gaps in sector-specific analysis can clarify major opportunities for mainstreaming zero emissions approaches in transport, waste, land use, and other sectors.
- **Policy options.** Policymakers can benefit from more robust characterization of carbon pricing, carbon taxes, cap-and-trade, low carbon economic development plans, PPPs, and other policy mechanisms for driving down emissions.
- **Multilateral context.** Identification of policy opportunities can build on evaluation of new alliances that are being forged, such as US-China engagement on climate action and trilateral interactions among the United States, China, and India, as well as the roles for the G-20 and the G-8 in the climate arena.
- **Institutional design.** New frameworks for tracking climate progress can draw on analysis of previous initiatives to monitor and aggregate climate action by nonstate actors (e.g., Rio+20 “cloud of commitments”).
- **Climate risk.** Assessment of systemic climate risks in financial institutions (e.g., potential for stranded assets in the energy and land sectors) could accelerate

investors' understanding of the potential for climate change to materially impact portfolios and facilitate new investment screening and targeting practices.

Diversify networks. More explicit efforts to expand representation of the Global South in climate change policy networks could create room for more transformative approaches by diversifying the political contexts and experiences with climate innovation that inform strategy dialogues.²² For example, adaptation practitioners in the Global South bring a wealth of experience but may not be able to communicate the lessons from their work in ways that attract multilateral funding.

Cross disciplines and scales. Similarly, engaging experts from other disciplines (e.g., health, agriculture) and practitioners from different local or regional projects can improve access to practical knowledge that can accelerate innovation and adoption of feasible technologies and best practices. Convening regional events can bring together practitioners to share experiences and link subnational jurisdictions that are poised to implement climate action with other jurisdictions that can learn from their experience.

Collaborate toward outcomes. Organizations that clearly delineate their objectives for seeking and establishing collaborations (e.g., increasing technical credibility insight into specific policy contexts) are more likely to achieve intended outcomes. For example, collaborations can be organized around specific:

- Geographies (e.g., scalable, transboundary innovation; systems knowledge exchange on best practice for climate action among select countries).
- Sectors (e.g., zero emissions pathway for transport; accelerating climate action through forestry, agriculture, and other land uses).
- Constituencies (e.g., subnational jurisdictions or nonstate actors seeking to actualize climate commitments in the face of policy and market barriers).
- Policy outcomes (e.g., climate finance road map, safeguards for tenure rights or socio-ecological resilience within multilateral mechanisms).

Annex-Contributors

Assessment

Early in 2016, the Stanley Foundation commissioned an assessment of major needs and opportunities for collective action on global climate change policy. The assessment, conducted by Christine Negra, was based on interviews with a diverse pool of foundation collaborators and other senior leaders with representation across the following sectors: multilateral organizations (global, regional), government (national, substate), private sector (advisory, corporate/finance), civil society (advocacy, research), and grantmakers/funders. Interviews were conducted via telephone or Skype January 14–22, 2016, with the following individuals:

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Participants in the Policy Lab on Climate Change

On March 7–8, 2016, the Stanley Foundation convened its Policy Lab on Climate Change in New York City, which brought together a diverse pool of internal stakeholders and external thought leaders to refine ideas put forward in the assessment and to discuss the current policy marketplace.

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- 1 United Nations Framework Convention on Climate Change, "Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius," *UN Climate Change Newsroom*, December 12, 2015, <http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/> (January 27, 2016).
- 2 United Nations Framework Convention on Climate Change, "Initial meeting of the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts," *UN Climate Change Newsroom*, March 25, 2014, http://unfccc.int/adaptation/groups_committees/loss_and_damage_executive_committee/items/8107.php (January 27, 2016).
- 3 United Nations Framework Convention on Climate Change, "Non-State Actor Zone for Climate Action," *Climate Action*, 2016, <http://climateaction.unfccc.int/about> (January 27, 2016).
- 4 United Nations Framework Convention on Climate Change, "Country by Country: The map of national contributions with a view to a future agreement," *United Nations Conference on Climate Change COP21*, November 30, 2015, <http://www.cop21.gouv.fr/en/learn/country-by-country/> (January 27, 2016).
- 5 Such as the Paris Committee on Capacity Building, the Warsaw International Mechanism for Loss and Damage, and the Technology Mechanism.
- 6 "[C]ommon but differentiated responsibilities and respective capabilities, in the light of different national circumstances" is in the Preamble, Article 4(3), and Article 4(19).
- 7 Insights may be gained from the European Union experience in which decision makers have developed a formula for allocating climate mitigation responsibilities among very diverse countries that integrates relative wealth with lowest cost mitigation opportunities.
- 8 Michael Northrup, "Is the Post-Fossil Fuel Era Now Inevitable?" *Huffington Post*, January 25, 2016, http://www.huffingtonpost.com/michael-northrup/is-the-post-fossil-fuel-e_b_8954310.html (January 27, 2016).
- 9 Carbon Disclosure Project (CDP), "Global Climate Change Report 2015: At the tipping point?" *Carbon Disclosure Project*, October 2015, <https://www.cdp.net/CDPResultsCDP-global-climate-change-report-2015.pdf>. (January 29, 2016)
- 10 Julia Rosen, "When companies track their climate emissions: Voluntary greenhouse gas accounting has become common in the private sector, but is it helping?" *Ensia*, March 28, 2016, <http://ensia.com/features/when-companies-track-their-climate-emissions/> (April 15, 2016).
- 11 For example, the UN Habitat III (<https://www.habitat3.org/>) agenda, which is expanding its focus from aid to developing countries to all cities, represents an opportunity to encourage an updated UN approach to working with subnational jurisdictions.
- 12 Sanjay Kumar, "Green Climate Fund vows to up its game: Fund sets target of approving US\$2.5 billion this year to help developing nations cope with climate change," *Nature News*, March 30, 2016, http://www.nature.com/news/green-climate-fund-vows-to-up-its-game-1.19627?WT.ec_id=NEWS-20160331&spMailingID=51044976&spUserID=NDMyNjY2MDk1OQS2&spJobID=883988254&spReportId=ODgzOTg4MjU0S0. (April 15, 2016).
- 13 For example, carbon markets in Europe and California have limited offset purchases from emerging economies.

- 14 Experts point to the need for evolution from incremental adaptation to resilience (e.g., “bouncing forward” from a shock by building better institutions and systems) to transformational adaptation of institutions.
- 15 For example, 80 percent of INDCs included agriculture as part of mitigation and adaptation targets. Meryl Richards et al., “Agriculture’s prominence in the INDCs,” CCAFS *Info Note*, November 23, 2015, <http://www.prweb.com/releases/2016/04/prweb13312192.htm> (January 29, 2016).
- 16 Dhanush Dinesh (Ed.) “Agricultural practices and technologies to enhance food security, resilience and productivity in a sustainable manner: Messages to the SBSTA 44 agriculture workshops,” CGIAR *Research Program on Climate Change, Agriculture and Food Security (CCAFS)*, February 12, 2016, <https://ccafs.cgiar.org/publications/agricultural-practices-and-technologies-enhance-food-security-resilience-and#.Vx5u-ZMrLUI>. (April 15, 2016)
- 17 Christine Negra, “Agriculture and climate change in national green growth strategies,” CGIAR *Research Program on Climate Change, Agriculture and Food Security (CCAFS)*, July 2013, <https://ccafs.cgiar.org/publications/agriculture-and-climate-change-national-green-growth-strategies#.Vx5uSJMrlUK> (April 15, 2016).
- 18 Marieke Veeger, “Shifting the paradigm: Narratives of the future guide the development of Costa Rica’s INDC,” CGIAR *Research Program on Climate Change, Agriculture and Food Security (CCAFS)*, December 14, 2015, <https://ccafs.cgiar.org/publications/shifting-paradigm-narratives-future-guide-development-costa-ricas-indc#.Vx5t45MrLUI> (April 15, 2016).
- 19 David Shukman, “Geo-engineering: Climate fixes ‘could harm billions’,” *BBC News Science & Environment*, November 26, 2014, <http://www.bbc.com/news/science-environment-30197085> (April 15, 2016).
- 20 For other countries and regions (particularly those representing a major portion of future emissions which are not receiving necessary support), analysis may be needed to support setting priorities and selection of appropriate financing mechanisms with highest likelihood of positive transformation toward a low carbon economy.
- 21 For example, more deliberate recruiting and meeting design focused on multicultural social dynamics.

The Stanley Foundation

The Stanley Foundation advances multilateral action to create fair, just, and lasting solutions to critical issues of peace and security. Our work is built on the belief that greater international cooperation will enhance global governance and spur global citizenship. The foundation frequently collaborates with a wide range of organizations using different forums, formats, and venues to engage policy communities. We do not make grants.

Our programming addresses profound threats to human survival where improved multilateral governance and cooperation are fundamental to transforming real-world policy. Current efforts focus on policy improvement to prevent genocide and mass atrocities, eliminate the threat of nuclear terrorism, and drive collective and long-term action on climate change. The foundation also works to promote global education in our hometown of Muscatine, Iowa, and nearby.

A private operating foundation established in 1956, the Stanley Foundation maintains a long-term, independent, and nonpartisan perspective. Our publications, multimedia resources, and a wealth of other information about programming are available at www.stanleyfoundation.org.

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