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Photo Credit: West Africa Biodiversity and Climate Change, Sierra Leone

PRIVATE SECTOR ENGAGEMENT TO ADVANCE CLIMATE ADAPTATION AND RESILIENCE: A GUIDE TO BUILDING EFFECTIVE PARTNERSHIPS

FEED THE FUTURE MARKET SYSTEMS AND PARTNERSHIPS ACTIVITY
SEPTEMBER 2023

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The Feed the Future Market Systems and Partnerships Activity is advancing learning and good practice in market systems development and private sector engagement within USAID, USAID partners, and market actors. For more information, access to technical resources, and opportunities to engage, visit www.agrilinks.org/msp.

CONTENTS

ACRONYMS

BAA	Broad Agency Announcement
BSR	Business for Social Responsibility
CDP	Carbon Disclosure Project
CSR	Corporate Social Responsibility
DRR	Disaster Risk Reduction
ESG	Environmental, Social, and Governance
FBA	Food, Beverage, and Agriculture sector
FCS	Fragile and Conflict-affected Situations
GDA	Global Development Alliance
GRP	Global Resilience Partnership
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
MNC	Multinational Corporation
NbS	Nature-based Solutions
NDC	Nationally Determined Contributions
NGO	Non-governmental Organization
PES	Payments for Ecosystem-Services
PPR	Performance Plan Report
PSE	Private Sector Engagement
R&D	Research and Development
ROI	Return on Investment
RSPO	Roundtable on Sustainable Palm Oil
SGB	Small and Growing Business
SME	Small and Medium Enterprise
TCFD	Task Force on Climate-related Financial Disclosures
TNFD	Task Force on Nature-related Financial Disclosures
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USG	United States Government

I. EXECUTIVE SUMMARY

Photo Credit: Ou Andeng CFR, World Fish, Kampong Thom Province, Cambodia

Executive Summary

Despite the monumental long-term economic and societal costs of failing to adapt to climate change, global adaptation efforts have not successfully generated the widespread action needed to secure a resilient future.

The 2022 Adaptation Gap Report from the United Nations Environment Programme (UNEP) found that despite increasing flows of international public funding for climate adaptation, overall adaptation finance has not kept up with adaptation costs as the impacts from climate change accelerate.

Governments, particularly in developing countries, face many barriers in funding their climate adaptation priorities. Such barriers include a lack of budgetary resources at the national and subnational levels, high levels of debt distress, and challenges in mobilizing capital from multilateral development banks and private investors. In addition, National Adaptation Plans often lack targeted implementation plans and associated financing and investment strategies.

Climate adaptation initiatives and investments by the private sector are also not happening at the pace or scale needed. **The private sector is a central part of the solution to addressing adaptation** broadly in a way that makes society more resilient to the effects of climate change while ensuring business continuity and generating returns on investment (ROI). Investment and action have been slow due in part to a lack of awareness and knowledge of climate risk management and adaptation approaches and limited communications across value chains regarding the urgency for action.

The Role of Business and Market Implications

Once key barriers are addressed, the private sector will be incentivized to act to advance its self-interest, such as maintaining business continuity and preserving a license to operate. **Building resilience enables businesses to enhance their supply chain, secure their logistics and transport capabilities, and maintain their productivity.**

These self-interested actions can generate societal co-benefits, as business continuity is directly linked with the preservation of ecosystems and supply chains on which community livelihoods and well-being depend.

As such, **the private sector is a critical part of the broader adaptation funding landscape as businesses will need to make key ecosystem, infrastructure, and community investments to ensure their own resilience.**

To build resilience, companies need to be able to anticipate and manage the risks posed by climate change to their operations and supply chains. This could include physical risks that damage company assets, sourcing and logistics disruptions, as well as transition risks that can impact a company's market and reputation.

Testing and scaling adaptation measures to meet new climate realities also present an opportunity for the private sector to innovate and commercialize new products and services, refine business models, and leverage investment opportunities across a variety of sectors.

In its 2022–2030 Climate Strategy, USAID articulates a goal of incentivizing and enhancing the capacity of the private sector to invest in and catalyze adaptation actions. By fostering increased public-private coordination and collaboration, USAID can help address barriers to private sector action on adaptation.

The Role of Partnerships to Accelerate Adaptation

This resource identifies financial, knowledge, and communication barriers that are holding back private sector action and investment in climate adaptation. **It offers guidance in three strategic areas where USAID and other development organizations can partner with the private sector, including financial institutions and multinational, regional, and local companies, to address these barriers.** Throughout these areas of engagement with the private sector, USAID can serve as a bridge to relevant public-sector initiatives and research efforts.

1 **Fostering learning and strengthening capacity on climate risk management.** Climate change is a material risk to the private sector. However, many companies are woefully underprepared for extreme weather events and lack risk management systems that would help them navigate climate risks, develop adaptation approaches, and build their resilience. Supply chain fragmentation can also stymie information sharing within an industry or subsector, which can preclude widespread adoption of adaptation solutions.

By providing adaptation-specific guidance on risk assessments, quantification, and disclosure and fostering learning around adaptation solutions, USAID and other development organizations can help the private sector build or improve integrated risk management systems to address climate threats.

2 **Making ecosystems resilient to climate threats and advancing other adaptation solutions.** Climate adaptation approaches such as nature-based solutions (NbS), climate-resilient infrastructure, climate-smart agriculture practices, and innovative technologies are available to help the private sector to strengthen their physical assets and protect workers and essential resources for producing goods and services—though these solutions require tailoring to local conditions. NbS—actions to protect, sustainably manage, or restore natural ecosystems to address climate change— are becoming increasingly attractive to public and private actors globally.

USAID and other development organizations can facilitate access to the technical expertise, tools, data, and systems needed to design and implement climate adaptation solutions that benefit ecosystems as well as affected stakeholders and communities.

3

Developing financial tools and incentives. Climate adaptation initiatives are typically developed to address climate risks over multiple time frames, including the longer term (10–50 years). This longer timespan exceeds that of conventional business plans, which often focus on the next three to five years. The misalignment between timespans prevents adaptation investments as they can compete with traditional ROI investments within a company. Furthermore, many companies remain largely uninsured against climate risk.

By supporting the acceleration of innovative climate adaptation finance and the scaling up of adaptation incentives, USAID and other development organizations can help vulnerable communities across company supply chains manage climate impacts.

We are in a critical decade for urgent action to adapt to our rapidly changing climate. **By actively engaging and partnering with the private sector, USAID and other development organizations can significantly expand their contributions to addressing the climate adaptation challenge.** We hope the tools and examples in this resource will be useful in this effort.

About this Resource

Addressing climate change is one of the top priorities for the United States Government (USG). The U.S. Agency for International Development (USAID) is advancing climate adaptation goals under USAID's Climate Strategy and co-leads the implementation of the President's Emergency Plan for Adaptation and Resilience (PREPARE) with the U.S. Department of State Office of the Special Presidential Envoy for Climate, which emphasizes the mobilization of public and private capital for adaptation.

The Bureau for Resilience and Food Security's Private Sector Engagement Secretariat has funded this

guidance to support USAID Missions and implementing partners in strategically partnering with a wide variety of private sector actors, throughout USAID's programming, to implement these USG strategies by piloting and scaling innovative, market-based solutions in service of making communities, business, and government more resilient to the disastrous effects of climate change.

This resource has four key sections:

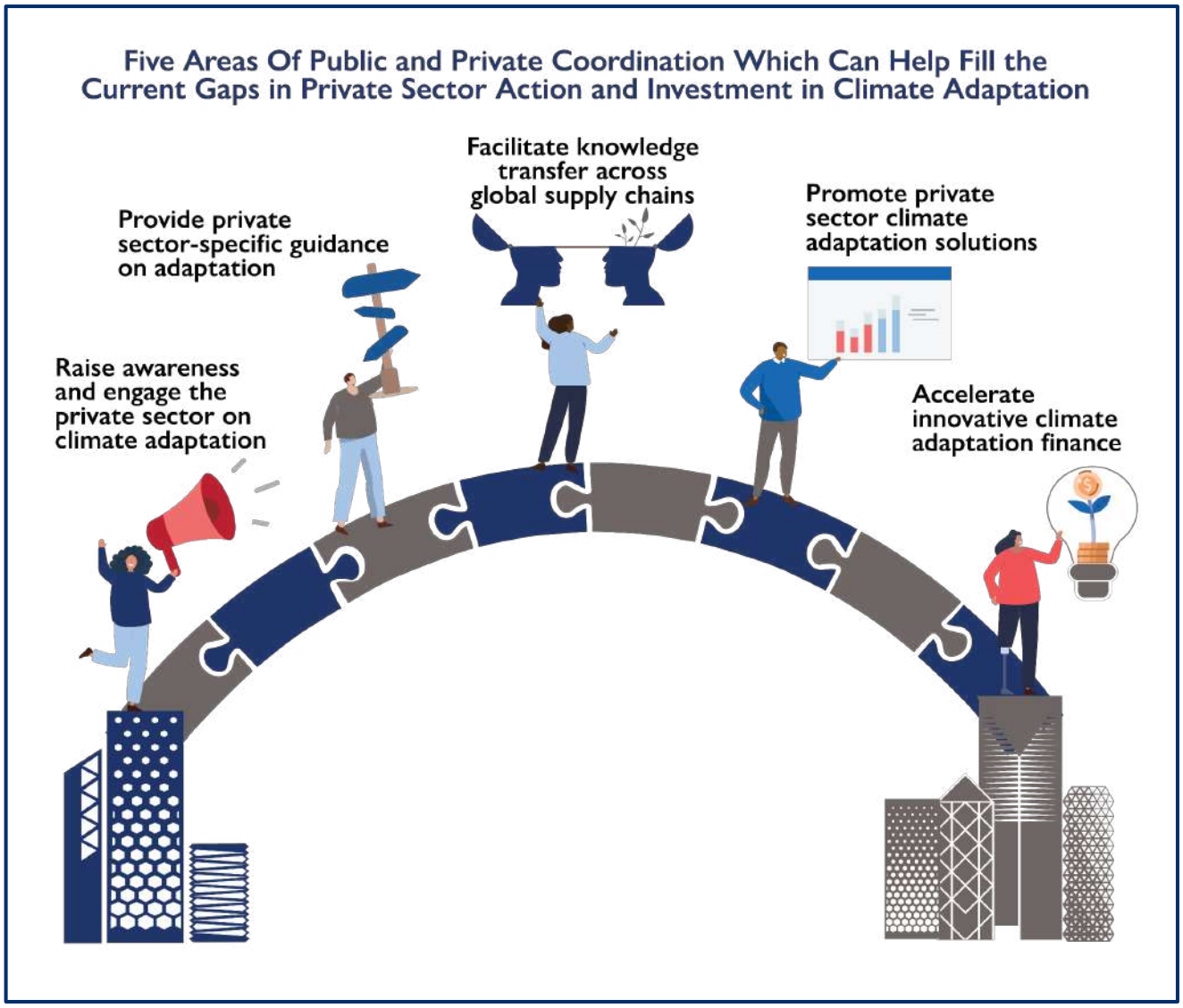
Private Sector Practices in Climate Adaptation for Resilience investigates the key measures that private sector actors are already taking to adapt to climate change and promote resilience across market systems in the future. It highlights trends in companies' climate adaptation commitments, strategies, and targets or goals; analyzes key drivers for action; and provides examples of impactful initiatives and challenges the private sector faces in scaling adaptation.

The **Strategic Opportunity Identification Tool for Engaging the Private Sector on Climate Adaptation** identifies five main steps to establish a new climate adaptation-focused collaboration between USAID (or another development agency) and a private sector entity.

The **Partnership Blueprints** serve as design models that development practitioners can use as a base from which to co-create partnerships with companies to advance climate adaptation solutions. These blueprints fall under three main pathways: I. Learning, Knowledge, and Capacity Building; II. Making Ecosystems Resilient to Climate Threats; and III. Developing Financial Tools and Incentives.

The **Vignettes** provide real-life examples of each of the six partnership blueprints. These short case studies provide technical and partnering lessons that will be relevant for anyone considering establishing a new collaboration or partnership with the private sector that has similar objectives.

II. PRIVATE SECTOR PRACTICES IN CLIMATE ADAPTATION FOR RESILIENCE



Context and Purpose

This section investigates the key measures that private sector actors are already taking to adapt to climate change and promote resilience across market systems in the future. It highlights trends in companies' climate adaptation commitments, strategies, and targets or goals and analyzes key drivers for action, examples of impactful initiatives, and challenges the private sector faces in investing, supporting, and scaling adaptation.

The emerging findings also highlight current obstacles and significant gaps where private sector actors must be incentivized into action and where USAID and other development practitioners may be particularly influential in encouraging behavior change or in shifting an operating model through collaboration and partnership. While an enabling environment, including policymaking and regulatory requirements, can mandate and incentivize private sector action on adaptation, this report focuses on partnerships to scale private sector action and investment in adaptation. In the subsequent guidance, areas where public sector participation is essential to shift behaviors to seed systemic change will be clearly identified.

This background section combines results from the literature review of best available science on climate adaptation and responses to high-level interviews with stakeholders representing multinational corporations (MNCs), regional and local companies, and climate stakeholders (e.g., conveners, climate advocacy groups, non-governmental organizations (NGOs), consortiums).

What Do We Mean by Climate Adaptation?

Defining Core Concepts Related to Climate Adaptation

Absorptive capacity refers to the ability to minimize exposure and sensitivity to shocks and stresses and apply preventative measures and appropriate coping strategies to avoid permanent negative impacts.[1]

Adaptive capacity refers to the ability to make proactive, informed choices in response to longer-term social, economic, and environmental change.[2]

Climate adaptation is the process of adjusting to the actual or expected climate and effects to moderate harm or exploit beneficial opportunities.[3] In this context, adaptation interventions seek to strengthen resilience to unavoidable impacts of climate change.

According to the Intergovernmental Panel on Climate Change (IPCC), **climate change mitigation** refers to the process of a human intervention to reduce emissions or enhance the sinks of greenhouse gases.[4]

According to IPCC, **maladaptation** refers to actions that may lead to increased risks of adverse climate-related outcomes, increased vulnerability to climate change, or diminished welfare, now or in the future.[5]

Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns. Physical risks may have financial implications for organizations, e.g., direct damage to assets and indirect impacts from supply chain disruption.[6]

Resilience refers to the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth.[7]

Business resilience is the ability to rapidly adapt and respond to business disruptions and safeguard people and assets while maintaining continuous business operations.[8]

Transformative capacity refers to governance mechanisms, policies and regulations, cultural and gender norms, infrastructure, community networks, and formal and informal social protection mechanisms that constitute the enabling environment for systemic change.[9]

Transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes. Depending on the nature, speed, and focus of these changes, **transition risks** may pose varying levels of financial and reputational risk to organizations.[10]

*USAID refers to **climate adaptation** as the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth.*

[1] USAID (2022a)
[2] *Ibid*
[3] IPCC (2022)
[4] *Ibid*
[5] *Ibid*
[6] TCFD (2017)
[7] Downing, J., et al. (2018)
[8] BSR perspective as developed and discussed with its corporate members.
[9] USAID (2022a)
[10] TCFD (2017)

How Does the Private Sector Talk about Climate Adaptation?

This study finds that the private sector infrequently refers to climate adaptation, but rather refers to the implications of climate risk and climate resilience, and that there is no widely accepted definition for resilience.

USAID refers to climate adaptation as the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. The Agency also considers climate adaptation as a process that can increase the resilience of vulnerable groups and sustain the development agenda. Furthermore, USAID applies a resilience lens to the design of all programming, regardless of location or technical sector.[11]

The framing of current private sector publicly stated commitments on climate adaptation appears to be directly aligned with USAID's resilience approach, viewing climate adaptation as a strategy to achieve business resilience. However, definitions and approaches are rarely explicit, making evaluations and comparisons of climate adaptation efforts between stakeholder groups complicated.

Current Climate Adaptation Efforts by the Private Sector

While there are several established pathways for companies to address climate mitigation—including implementing energy efficiency measures, adopting renewable energy, and reducing dependency on fossil fuels—recognized modalities for private sector action on climate adaptation and resilience are more limited. Although the private sector has focused more on climate mitigation, mitigation and adaptation can be complementary responses to climate change.[12] Given the projected physical impacts from climate change, more emphasis, investment, and prioritization on adaptation from the private sector are needed.

There are multiple business benefits to climate adaptation and resilience, including maintaining stable operations, securing supplies, preserving a license to operate in the community, and enabling the support and trust of stakeholders.[13] Finally, investing in climate adaptation can help companies adhere to norms and standards that will be increasingly set by governments and institutions in their efforts to promote and scale up climate action. This section assesses a brief history of business efforts in support of climate adaptation to date and identifies the factors that drive corporate action in this space.

[11] USAID (2022b)
[12] IPCC (2015)
[13] Gallagher, E. (2018)

Brief History of Efforts and Early Drivers of Action on Climate Adaptation

Many of today's business efforts on climate adaptation and resilience originate from the disaster risk reduction (DRR) initiatives grounded through the Hyogo Framework for Action (2005-2015) and the Sendai Framework for Disaster Risk Reduction (2015–2030), adopted by the United Nations, which charted a role for state and non-state actors in supporting DRR.[14] Commitments were made to take coordinated action on DRR, improve early warning systems and strengthen preparedness, and reduce risk and build resilience. Further, DRR and resilience-building are evident in several of the UN Sustainable Development Goals (e.g., SDG1, SDG2, SDG11, SDG13).[15] These frameworks and goals have provided high-level guidance for the private sector in preparing for, responding to, and rebuilding after natural disasters.

In addition to DRR, companies have deployed corporate social responsibility (CSR) and philanthropic efforts to respond to natural disasters or weather-related events. Funding, in-kind donations or employee volunteerism, such as tree-planting activities or responding to extreme weather events, are often activated within and outside companies' value chains to support communities in rebuilding or restoration. For example, AT&T developed an employee relief fund and developed disaster preparedness volunteer teams to train and prepare for supporting communities in rebuilding post natural disasters.[16] These efforts are aimed to align businesses with their social and environmental mandates, secure reputational gains among stakeholders, or serve as good neighbors in the community.

For the last few years, corporate efforts on climate adaptation have shifted from CSR initiatives to business imperatives to mitigate climate risk and build resilience. However, business action on climate adaptation is not yet mainstream. These, and several other drivers for action are described in the section below. However, many gaps need to be addressed to scale climate adaptation to promote resilience across market systems.

Current Drivers of Private Sector Climate Adaptation Efforts

There are several drivers that prompt the private sector to commit to and invest in climate adaptation. These include:

Learning about the science and the need for urgent action	Maintaining supply chain continuity	Responding to stakeholder demand and pressure

Learning about the science and need for urgent action: The release of the latest IPCC Assessment Reports in 2022 conveys an emphasized sense of urgency for climate action, and the private sector is considered to have a critical role in addressing climate change. Raising awareness and drawing the connections between climate impacts and business continuity is essential. It is a first step in building a company's adaptive capacity and reducing vulnerability to climate risks.[17] But awareness campaigns or new scientific data alone is not leading to corporate climate adaptation efforts at the scale that is needed.

[14] UNDRR (2015a)
[15] SDGI (n.d.)
[16] AT&T (2022)
[17] Climate ADAPT (2015)

Minimizing exposure and vulnerability to physical risks: Businesses that are heavily dependent on natural resources, such as the food, beverage, and agriculture sectors (FBA), are vulnerable to the vagaries of climate through their direct exposure to the risks from climate change. For example, agricultural yields and farming operations are disrupted from floods, heatwaves, and pest infestation, which can disrupt critical food supply chains and a company's bottom line. Direct exposure and the risks posed from climate change render climate adaptation and resilience investments an imperative investment for companies to safeguard production and revenues.

Unilever reports that shifting weather patterns in India are leading to shorter growing seasons and crop losses for smallholder farmers, highlighting the need to protect and restore water systems and improved infrastructure to guarantee water availability.[18] Sucafina, and its sister company in Uganda, Ugacof, noted that the degradation of soil quality is severely impacting coffee production and suggested an urgent need to implement climate-smart agricultural practices to regenerate degraded soils to guarantee the stability of coffee production.[19]

Maintaining supply chain continuity: Companies sourcing from regions that are vulnerable to climate change face risks in their ability to maintain supply chain continuity. In 2011, severe flooding in Thailand affected more than 14,500 companies worldwide that were reliant on Thai suppliers. Total losses were estimated between US$15–20 billion.[20] The global hard-drive market was significantly affected. Western Digital, which maintains one-third of the global hard-drive market, lost 45 percent of its shipments[21] and HP lost US$2 billion.[22] HP now conducts annual water risk assessments and developed a supply chain visualization monitoring tool in efforts to build its business resilience. These assessments identify sites that manufacture water-intense product types and HP uses this information to assess overall opportunities for risk reduction.[23]

Responding to stakeholder demand and pressure: In 2017, the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommended a standardized framework for businesses to disclose the risks and financial impacts they face from climate change in their activities. It was the first agreed-upon framework with 3,900 supporters representing various organizations across sectors, including insurance companies, asset managers, consulting firms, large banks, pension funds, and non-financial companies. It seeks to capture the financial implications of climate change and successfully made the business case for managing climate risk.

Leveraging the TCFD recommendations, investors are increasingly demanding that companies disclose their climate-related risks and outline contingency plans to mitigate these risks. Select jurisdictions—such as the UK, New Zealand, and Hong Kong among others—are mandating companies to publicly disclose these risks with the aim of accelerating efforts to build resilience.

[18] Unilever (11/04/2022). BSR stakeholder interview.
[19] Sucafina (28/04/2022). BSR stakeholder interview.
[20] Amado, J.C., et. al. (2021)
[21] Wai, Lau & Wongsurawat, Winai. (2012)
[22] WBCSD (2015)
[23] HP (2019)

In 2020, the Task Force on Nature-related Financial Disclosures (TNFD) assembled. The Task Force, of 34 members and initially endorsed by G7 Finance Ministers, aims to provide recommendations for implementation in 2023 on new disclosures for financial services firms and corporates that capture nature-related risks. TNFD's focus is to support companies moving away from financing activities that harm the environment and shifting towards financing nature-based solutions (NbS). There is a growing expectation for private sector action on nature conservation and regeneration, observed through increasing investor interest, the establishment of industry initiatives and commitments, and more recently, the COP26 agenda. It is broadly recognized that the biodiversity crisis, in conjunction with the climate crisis, is undermining business operational stability and affecting supply chains as well as the natural resources on which they rely. In March 2022, TNFD released a beta version of a framework to help companies factor nature into financial and business decisions—meeting investors' and stakeholders' demands for ambitious action to conserve and restore land, ocean, freshwater, and the atmosphere.

The Private Sector's Response to Current Drivers

Private sector actors respond differently to these drivers, depending on a company's adaptive capacity—or the ability to make proactive, informed choices in response to longer-term social, economic, and environmental change.[24] MNCs—with more assets and resources than small and growing businesses (SGBs)—are more likely to invest in climate risk assessments to understand the impact of climate change on their businesses. Equipped with information on their climate risk, MNCs can make informed decisions on how to de-risk and re-prioritize resources to become resilient. With their significant dependence on global supply chains, some MNCs are driven to address supply chain disruptions caused by climate change to maintain business continuity.

Regional and local companies invest in climate adaptation to mitigate their physical risk (e.g., business infrastructures' exposure to extreme weather events like floods and hurricanes). However, smaller firms may have limited funds to assess and prepare for climate risks, and therefore often take reactive responses, for example, by responding to *ad hoc* extreme weather events (e.g., soft protections against flooding of companies' infrastructure). Larger local and regional companies may have resources to take a proactive approach by assessing weather- and climate-related risks and investing in adaptation actions, such as investing in green and gray infrastructure (e.g., dams, sea walls, and dikes) to protect hard assets.

To date, investor pressure and mandatory climate risk disclosures are increasingly required in developed and some emerging economies. In 2021, the G7 expressed their support of mandatory climate risk disclosures,[25] and some emerging economies are exploring or mandating elements of the TCFD recommendations, including Malaysia and Brazil, respectively.[26] As mandatory disclosure is expected to increase in several jurisdictions, this may become a primary driver for many companies to assess their climate risk, potentially leading to greater investment in adaptation.

While these drivers are prompting some businesses to act, climate adaptation is not yet mainstream in the private sector. We explore reasons for this in Gaps Limiting Private Sector Investment in Climate Adaptation.

[24] USAID (2022a)
[25] Reuters (2021b)
[26] Bank Negara Malaysia (2021); Reuters (2021a)

Key Efforts for the Private Sector to Advance Climate Adaptation

More than in other sectors, **FBA companies have been engaged in addressing climate-related risks to ensure quality and consistent crops and yields.** Efforts to promote climate-resilient agriculture and crop systems and address water management challenges have been implemented in response to weather- and climate-related impacts, including pest infestations and soil degradation.

While there are more examples of climate adaptation efforts within the FBA sector than in others, there are **emerging examples that signal increased focus and attention in helping such practices to become more widespread, across sectors, including innovative financing and multi-stakeholder initiatives.** For example, Zurich Insurance Group developed a flood resilience measurement framework for communities with 88 sources of resilience that has been tested in more than 100 flood-prone communities worldwide, including one in Indonesia in partnership with Mercy Corps.[27]

The entries below are examples of corporate efforts on climate adaptation that were investigated for this study.

Examples of Corporate Efforts on Climate Adaptation:

Coca-Cola. In 2018, the Coca-Cola Company assessed the climate to key commodities in its supply chain, starting with coffee and tea, and evaluated possible solutions to integrate climate resilience in the company's existing strategy, risk management, and sustainability systems. The company focuses its efforts on water conservation across geographies, landscape resilience through water vulnerability assessments, and the implementation of NbS for increased resilience of agricultural systems. *Photo Credit: Sucafina*

Mars Inc. Mars' Cocoa for Generations initiative aims to support the climate resilience of cocoa producing systems and of the communities depending on them. The initiative supports rural communities involved in the cocoa supply chain, promoting a community-based approach to resilience and local environmental challenges. Specific activities supported by the initiative involve climate-smart agriculture and regenerative agricultural practices to restore soil quality and stabilize crop yields. *Photo Credit: Mars Inc.*

[27] Zurich Insurance Group (2016)

Unilever. Since 2010, the company has supported smallholder farmers to improve their agricultural practices and enhance livelihoods. Existing programs aim to build climate resilience of the agricultural systems and the associated workforce on which Unilever's supply chains depend. Enhancing smallholder farmers' resilience represents an opportunity for Unilever to promote regenerative farming, protect biodiversity, and ensure a deforestation free supply chain by 2023. *Photo Credit: Unilever*

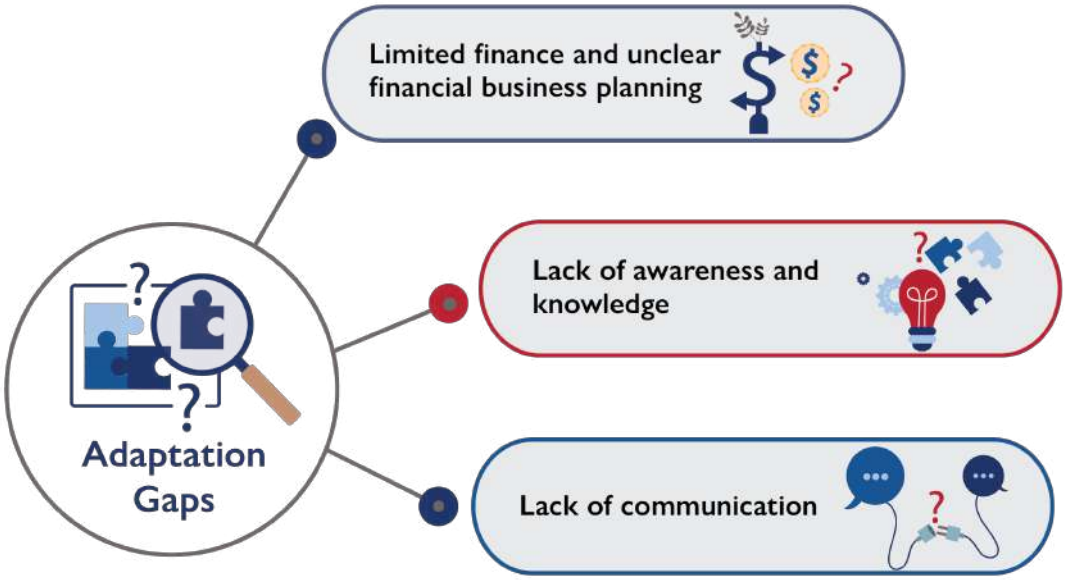
East-West Seed. A company producing and commercializing seeds across South and South-East Asia which undertakes research and development (R&D) efforts on drought-tolerant seed varieties to support farmers affected by the impacts of climate change. East-West Seed also trains smallholder farmers on climate-smart vegetable production and crop diversification, facilitating knowledge transfer on sustainable agronomic practices. *Photo Credit: East-West Seed*

Sucafina and Ugacof. Sucafina is a coffee trading company with a global outlook and direct engagement with sourced coffee plantations and producers. Sucafina partners with coffee farmers, aiming to expand its network to 350,000 farmers worldwide, and delivers training programs to farmers to promote regenerative agricultural practices and access to financial mechanisms to ensure access to basic services such as coffee inputs (e.g., feedstuffs and fertilizers) and education in remote areas. Ugacof, Sucafina's sister company in Uganda, is assessing alternatives to synthetic fertilizer. Rather than feeding plants with synthetic fertilizers, it is exploring affordable and effective ways to feed plants naturally in a way that restores soils. *Photo Credit: Sucafina*

Olam Agri. A global commodity merchant which focuses on food, feed, and fibers, engages farmers in remote areas of least developed countries. The company supports smallholder farmers' resilience through climate-smart agricultural practices and regenerative landscape management (e.g., reduction of synthetic chemical inputs). Olam Agri has been assessing the upstream climate risks associated with its assets to evaluate the risks to key supply chains (e.g., infrastructure exposed to flooding, risks of heat stress for employees, climate risks for plantations and farmers). *Photo Credit: Olam Agri*

The climate adaptation efforts implemented by the companies investigated in this report are often tailored to address the issues that threaten the ecosystems where they source their products. Current efforts by these companies reflect an ecosystem-based approach to climate adaptation that focuses on the management, protection, and restoration of natural resources, and leverages NbS to enhance business resilience. Besides restoring natural or modified ecosystems, NbS also aim to address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.[28] Other examples of NbS leveraged by the private sector are watershed vegetation management and restoration, agroforestry practices that enhance canopy cover and water capture, and mangrove restoration, and conservation for coastal protection.

Gaps Limiting Private Sector Investment in Climate Adaptation



Private sector climate adaptation initiatives and investments are not happening at the pace or scale needed to safeguard communities, ecosystems, or businesses from the impacts of climate change. The gaps are a result of the private sector's limited finance and budgets allocated to adaptation, awareness and knowledge, and communication regarding the urgency for action.

As a feature of any transformational partnership, USAID should engage government to activate policy and regulatory measures that require and incentivize efforts by the private sector for climate adaptation. Some of these pathways are included within the Partnership Blueprints section.

The limiting factors analyzed in the following sections focus specifically on areas where USAID as a primary partner to a company counterpart could play a significant role in accelerating private sector action and investment in adaptation.

[28] UNEP (2021)

Gap 1: Limited Finance and Unclear Financial Business Planning

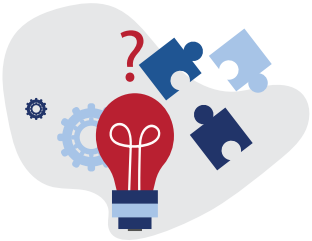
The 2020 Adaptation Gap Report by the United Nations Environment Program (UNEP, 2021) found that despite increased flows of international public funding for climate adaptation, adaptation finance has not kept up with the adaptation costs as the impacts from climate change accelerate. Thus, private sector finance for adaptation is essential, but several barriers exist in mobilizing funds.

Companies have limited experience and difficulties in quantifying the costs of inaction. Financial estimates of current private sector climate adaptation efforts and needs remain elusive. This is a result of both limited experience and a high level of complexity to quantify the cost as the physical impacts from climate change can range significantly, and intangible assets (e.g., biodiversity) can be difficult to quantify. Additionally, Goldstein et al. (2019) reveal an extensive discrepancy between the aggregated financial costs of physical climate risks reported and the global estimates of costs associated with climate change impacts. The research suggests that this underestimation is due to businesses underreporting and underestimating the financial climate impacts. Financial adaptation disclosures are often limited to the costs of ongoing efforts to manage current climate risks, failing to grasp the magnitude of future physical climate risks and impacts on businesses.

Climate adaptation return on investment (ROI) is uncertain and difficult to calculate. Financial benefits derived from corporate climate adaptation efforts have been historically difficult to estimate. Goldstein et al. (2019) finds that the limited economic estimates are mainly presented in terms of avoided future losses rather than direct financial returns in commercial terms. This is driven by limited public data and research on the financial returns of climate adaptation.[29]

There is a misalignment between the finance timeline and the one of climate change impact. Climate adaptation initiatives are developed to address climate risks that are happening today and also those projected to happen over the longer term (10–50 years). This timeline exceeds traditional business plans that focus on the next three to five years[30]. Several private sector interviewees indicate that the mismatch in timelines impede widespread internal company buy-in and alignment on climate adaptation decision-making and action. The Coca-Cola Company, East-West Seed, Mars, and Sucafina agree that companies' 'short-termism' must be addressed to mainstream corporate investment in climate adaptation.[31] Otherwise, what emerges is an existing mismatch between short-term financial decision-making and long-term climate change impacts.[32]

[29] UNEP (2021)
[30] Tall, et al. (2021)
[31] Coca Cola Company (13/04/2022). BSR stakeholder interview; East-West Seed (20/04/2022). BSR stakeholder interview; Mars (13/04/2022). BSR stakeholder interview; Sucafina (28/04/2022) BSR stakeholder interview.
[32] Goldstein, A. et al. (2019)



Gap 2: Lack of Awareness and Knowledge

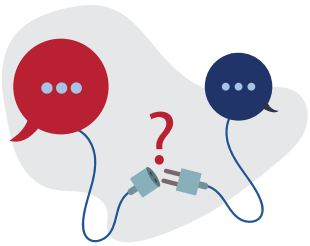
Climate risk management remains challenging for many companies. In a business context, identifying climate risks and determining how best to build resilience in response to climate impacts remains a challenging task, both from an operational and capacity point of view.[33] Based on Goldstein et al. (2019), companies underestimate and underreport climate impacts due to limited internal expertise and knowledge but also linked to the limited availability of and guidance on how to incorporate climate risk management into 'standard' business risk management processes.[34] While select jurisdictions are mandating that companies disclose climate-related risks, the mandatory disclosures have not yet translated into climate adaptation actions at scale.

The Coca-Cola Company suggests that both the limited action and reporting on climate adaptation is due to a lack of consistent metrics, key performance indicators (KPIs), and targets needed to implement and assess progress on climate adaptation.[35] The TCFD recommendations lack the specificity needed to capture private sector efforts to address climate risks, their associated costs, and potential strategies to build resilience. Few companies fully understand the potential impacts of climate change on business endeavors. Indeed, since climate projections have proved to be overly conservative compared to already occurring climate impacts,[36] the private sector might be exposed to enhanced risks that are currently unaccounted for. Therefore, moving from uncertain climate projections to quantifiable risks—and moving from conceptual solutions to hard implementation, coupled with targets and metrics for reporting—remains a challenge for many.

The private sector has limited knowledge of value chain risks. Although climate change affects global supply chains, customers, and consumers, companies are not addressing value chain risks comprehensively and efficiently. Goldstein et al. (2019) finds that a strong majority of companies (76%) view physical climate risks as only directly affecting their operations, only 15 percent reported climate risks in their supply chains and only 8 percent reported risks affecting their clients.[37] Many companies do not have clear insight or mapping of their supply chains, limiting their ability to assess the associated risks. But by focusing solely on operations, companies are ignoring the significant risk posed by supply chain disruption and potentially undermining wider societal adaptation.

Limited private sector awareness and knowledge of viable climate adaptation solutions. There's limited internal expertise and 'know-how' within companies to design and implement successful climate adaptation strategies. Even when climate risks are properly identified, many companies are hard pressed to identify viable climate adaptation. Examples of viable climate adaptation solutions can include the implementation of green infrastructure (e.g., mangrove forests, bioswales, or green roofs) to protect businesses from physical climate impacts and the development of resilient products, such as drought-tolerant seed varieties to sustain production systems and supply chains. These solutions are further discussed in Promote Private Sector Climate Adaptation Solutions under Closing the Climate Adaptation Gaps.

[33] GRP (13/04/2022) and The Coca Cola Company (13/04/2022). BSR stakeholder interviews.
[34] Goldstein, A. et al. (2019)
[35] The Coca Cola Company (13/04/2022). BSR stakeholder interview.
[36] Bump, P. (2021)
[37] Goldstein, A. et al. (2019)



Gap 3: Lack of Communication

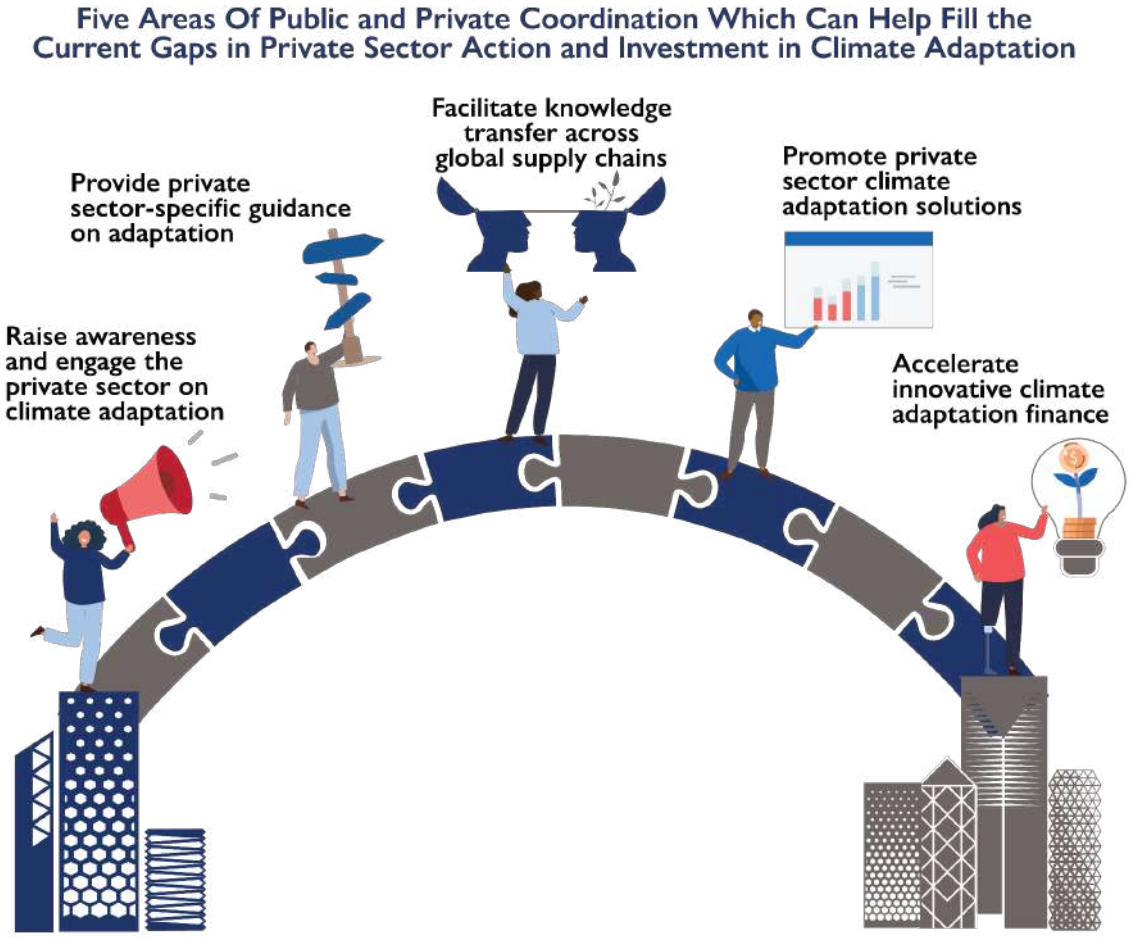
Knowledge on climate risks and adaptation options available to the private sector is fragmented, poorly communicated, and not effectively translated into actionable solutions for the private sector.[38] Despite the rapid advance of available climate information to inform risk management, only a limited number of efforts have focused on translating and distilling this information for use by business practitioners. Information is also rarely segmented by relevance for different types of industries and geographies. Further, there is limited evidence of successful corporate climate adaptation efforts due to a lack of comprehensive repositories of wide-ranging best practice case studies documenting different types of local needs and solutions.

Climate adaptation is perceived by the private sector as 'taking the back seat' in climate action. An overarching cause of current business blind spots in climate adaptation is a lack of public communication regarding the urgency of business action, the clear risks, and costs of inaction to the private sector, and the quantified expected positive outcomes tied to specific shifts in practices. Within the private sector, climate adaptation is often perceived as 'taking the back seat' in climate action, as the focus is often on corporate climate mitigation efforts to meet emissions reduction targets and adopt net-zero goals. As the Global Resilience Partnership (GRP) suggests, climate adaptation is sometimes framed as the acceptance of failure among the business community, referring to a long-held preference to mitigate or tackle climate change rather than adapt to it.[39]

Communication is not flowing across supply chains. UNEP points to a lack of communication around climate adaptation between large buyers and small suppliers, leading to a mismatch between corporate commitments and the actual practices of suppliers.[40] Dialogue and coordinated action among all private sector actors along the value chain must be successfully established to further incentivize action and achieve impact.

[38] Center for Climate and Energy Solutions & Environmental Defense Fund (2022)
[39] GRP (13/04/2022). BSR stakeholder interview.
[40] UNEP (8/04/2022). BSR stakeholder interview.

Closing the Climate Adaptation Gaps



The gaps in private sector action on climate adaptation can be addressed, in part, by fostering increased public-private coordination and collaboration.[41] As noted by the IPCC, such collaboration can help stakeholders transition from an incremental approach to climate adaptation, focused on immediate and near-term climate risk reduction, towards a transformative approach to climate adaptation, leading to systemic change.[42] The private sector can deliver ambitious action on climate adaptation for increased business resilience via public-private partnerships as they have the potential to address regulatory, cost, and market barriers limiting action on climate adaptation while leveraging private sector investments.[43]

The Partnership Section of this guidance will include detailed blueprints—derived from these strategic areas—for USAID-driven engagement with the private sector.

Below are descriptions of five potential areas of strategic focus.

[41] As a feature of any transformational partnership, USAID should engage government to activate policy and regulatory measures that require and incentivize efforts by the private sector for climate adaptation.
[42] IPCC (2022)
[43] *Ibid*

Raise Awareness and Engage the Private Sector on Climate Adaptation

Translate complex climate projections and their impacts for businesses.[44] The best available science and research on the impacts of climate change affecting businesses should be more effectively translated and segmented into actionable and viable solutions for different business sectors to address those impacts. Additionally, the adaptation solutions encompassing best available science should be effectively disseminated to the private sector. By conveying both the magnitude of climate impacts on business sectors and the urgency for action in climate adaptation, businesses can be incentivized to scale up efforts and improve their business resilience.

Business practitioners often face significant internal obstacles to secure the necessary buy-in to invest in climate adaptation. Data and analysis on the benefits and timelines of climate adaptation solutions can help equip corporate senior leadership and boards of directors in making informed decisions on how to respond to climate risks. But to change mindsets and inspire action towards resilience, it is essential for public actors, research organizations, and technical experts to engage with senior leadership and boards of directors. Meaningful engagement through convenings and sector-specific technical advisory services can help build the trust of corporate decision makers, guiding businesses to invest in climate adaptation. As mentioned by GRP, board engagement and support on climate adaptation strategies can speed up and scale efforts towards business resilience and give clearance to invest beyond the traditional three-to-five-year business plan.[45]

Provide Private Sector-specific Guidance on Adaptation

Develop a standardized climate adaptation framework. The TCFD developed a framework for businesses to assess and disclose climate risks, but it falls short of guiding companies on how to address those risks. The private sector needs a framework to implement climate adaptation solutions. Such a framework could provide general agreement on key terminology, guidance on identifying climate adaptation solutions for both operations and the supply chain, and potential KPIs and targets to support companies in measuring impact.

Quantify climate adaptation efforts and the cost of inaction. A significant gap in private sector action on climate adaptation is the lack of clarity on the costs and benefits of adaptation solutions and the costs of inaction. Quantifying these costs and benefits can help business practitioners seek internal leadership approval to invest in climate adaptation. Further, to align with traditional business plans which are three-to-five-years, defined timelines for climate adaptation projects are essential to manage expectations of business decision makers. Lastly, research and analysis on the ROI of climate adaptation projects for the private sector can help articulate the business case for resilience.

[44] Tall, et all. (2021).
[45] GRP (13/04/2022). BSR stakeholder interview.

Facilitate Knowledge Transfer across Global Supply Chains

Facilitate dialogue between buyers and suppliers. As UNEP says, "Adaptation finance is a barrier, but engagement is the greatest challenge."[46] Several stakeholders interviewed maintain that there is a lack of communication and engagement between buyers and suppliers regarding the rationale and urgency for adaptation.[47] With large and complex supply chains, there is a high likelihood suppliers are not aware of buyers' climate commitments, and conversely, buyers might be unaware of the climate risks their suppliers are facing, leading to misalignment of practices and unfulfilled targets. There is an opportunity to design meaningful approaches to multi-stakeholder engagement for the private sector to enable large buyers and small suppliers to convene, share challenges, and identify opportunities related to climate adaptation. Multi-stakeholder engagement can be fostered throughout supply chains and across tiers of suppliers to align on actions, norms, standards, targets, and public commitments.

> "Adaptation finance is a barrier, but engagement is the greatest challenge."

There is a need to help facilitate knowledge transfer through tailored educational programs for adult learners on specific sectoral practices. Mars, Olam Agri, and Sucafina find that educational training often fails to deliver high levels of engagement and adoption of climate adaptation and resilience measures, especially when the targeted audience consists of smallholder farmers.[48]

Promote Private Sector Climate Adaptation Solutions

Business can look to two areas of adaptation solutions: 1), **building resilient business operations and supply chains**, which can include enhancing green and gray infrastructure (An example of green infrastructure is NbS, which offer sustainable management to reduce the climate risks to which companies are exposed. NbS solutions also offer co-benefits such as carbon-sequestration, biodiversity conservation, improved livelihoods, and higher water quality); and 2), **developing new products and services to enhance resilience** (Examples include financial or insurance products to support investments in adaptation as well as new drought-tolerant seeds to maintain quality agricultural yields).

Scale up NbS for adaptation. NbS, can provide corporate environmental, social, and governance (ESG) benefits while reducing the impact of physical climate risks and the exposure of vulnerable assets and populations.[49] There is an opportunity to inform and guide the private sector to leverage the direct and indirect benefits of NbS to build resilience across value chains. Further, investor pressure is likely to mount with future updates to the current beta TNFD framework that helps businesses understand

[46] UNEP (08/04/2022). BSR stakeholder interview.
[47] *Ibid*
[48] Mars (13/04/2022). BSR stakeholder interview; Olam Agri (29/04/2022). BSR stakeholder interview; Sucafina (28/04/2022). BSR stakeholder interview.
[49] UNEP (2021)

nature-related risks. Development practitioners and the public sector can leverage the call from investors by equipping businesses with knowledge of NbS to address nature-related risks.

To expand NbS to sectors beyond FBA, there is an opportunity to implement pilot programs and share their impacts as demonstrated case studies to influence action. Other sectors that can benefit from NbS are consumer packaged goods, such as cosmetics or cleaning products that rely on natural ingredients and forestry products for packaging (e.g., potential for regenerative forestry); hospitality that relies on coastline ecosystems (e.g., potential for mangrove conservation and restoration); and manufacturing infrastructure that relies on trees for cooling (e.g., canopy cover). NbS, such as mangrove and marsh protection and restoration, responsible agroforestry, and the establishment of green belts, offer several co-benefits to climate adaptation, including effective carbon storage while promoting resilient livelihoods. Clearly identifying these ESG co-benefits can support the business case for NbS.

Identify and expand market opportunities for adaptation-related products and services. Adapting to climate change can require new products and services, offering new market opportunities for the private sector. Businesses may require support from the public sector in the start-up phase, product development, or in reaching new markets. For example, the development of high-precision laser and leveling to reduce runoff or pressurized irrigation technologies could be supported by blended finance mechanisms initiated by financial institutions, public-private partnerships, or pilot projects with new customers such as small and medium enterprises (SMEs).

Provide technical support on technology. The private sector needs further guidance on technical and technology development support for climate adaptation solutions. For example, several interviewed stakeholders expressed need for digital agriculture monitoring systems (e.g., via satellites), agricultural mapping tools, sustainable soil management strategies, and climate data analysis from R&D bodies to respond to shifting weather patterns and long-term climate impacts.[50] Mars points to the need for better monitoring technology to determine when a contaminant or pest infestation is on the rise.[51]

Accelerate Innovative Climate Adaptation Finance

De-risk investments and seek innovative financing solutions. The uncertain financial viability of climate adaptation projects is discouraging investors. To attract investment flows, innovative de-risking instruments can be utilized to lower the overall capital costs of climate adaptation projects. Blended finance can be an effective approach to signal public support for climate adaptation and to bring public and private actors together to generate stronger returns and deliver positive impact, rather than focusing too narrowly on risk-avoidance. As an example, BNP Paribas partnered with UNEP to create a blended finance mechanism that supports sustainable rubber production on heavily degraded lands in Indonesia. The projects focus on the restoration of degraded agricultural landscapes through agroforestry to sustain rubber production and improve livelihoods. The partnership contributes to de-risking private

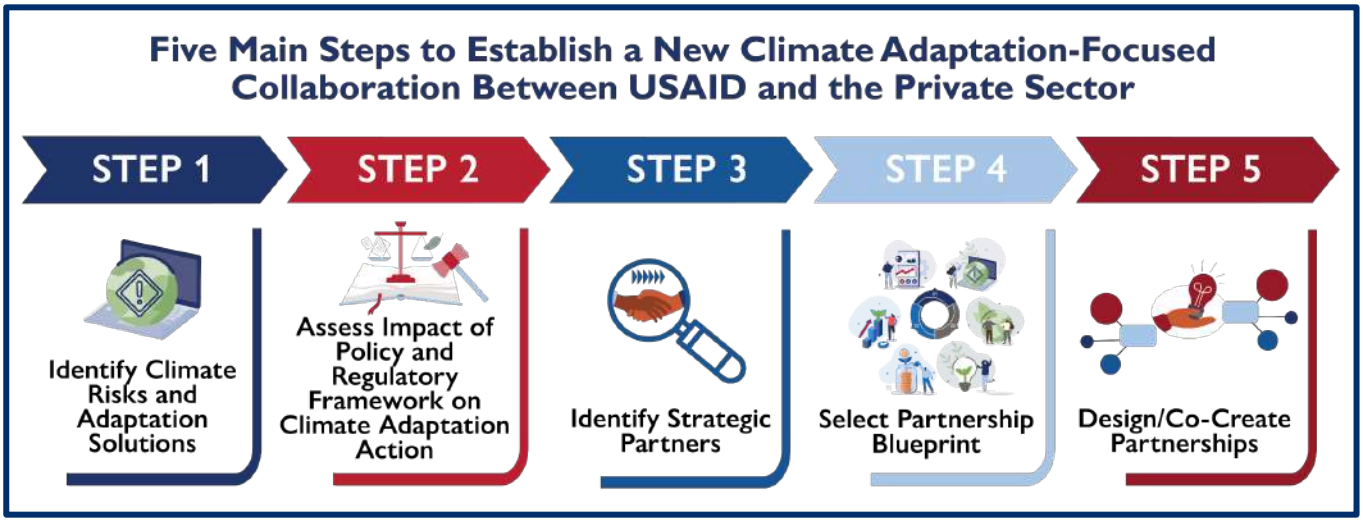
[50] Sucafina (28/04/2022). BSR stakeholder interview; Olam Agri (29/04/2022). BSR stakeholder interview; Mars (13/04/2022). BSR stakeholder interview.
[51] Mars (13/04/2022). BSR stakeholder interview.

sector investments in the project, which helps make the case for investment by drawing in other actors such as insurance companies, private banks, and pension funds.

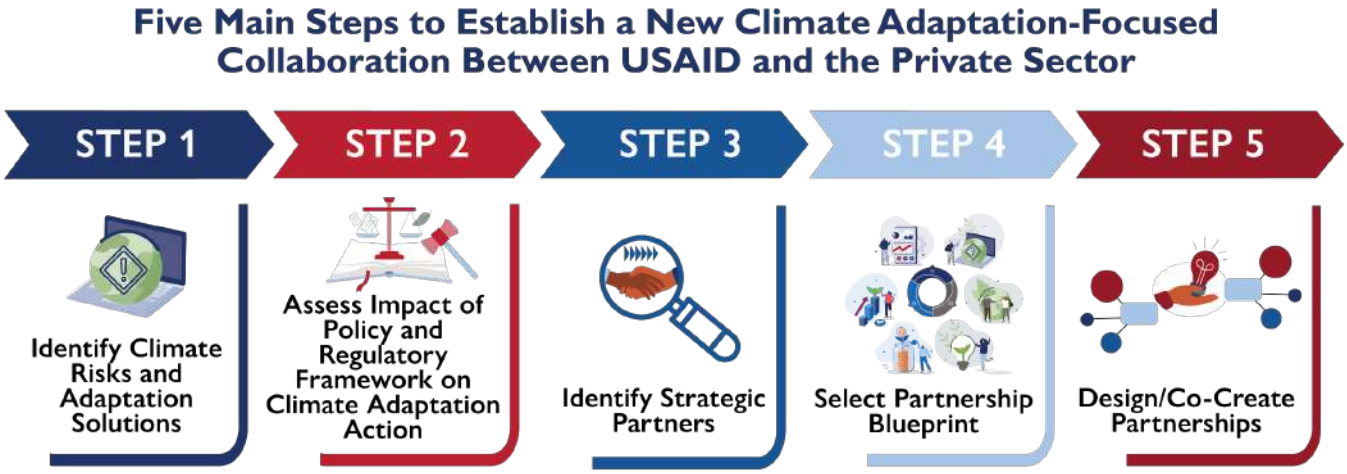
Innovative financial mechanisms can be specifically tailored to promote ecosystem-based solutions to climate risks. Examples of mechanisms to promote private sector financing for NbS can be green bonds, debt-for-nature swaps, ecological fiscal transfers, payments for ecosystem-services (PES), disaster risk insurance, and reduced insurance premiums through adoption of green measures (e.g., sustainable water and land management).[52] The public sector can contribute to the scalability of these financial mechanisms by better integrating them into their activities and partnerships, defining and scaling sustainability standards in the commercial financial sector for lending in the agriculture and forestry sectors.

[52] Ng'etich, S. et al. (2022)

III. STRATEGIC OPPORTUNITY IDENTIFICATION TOOL FOR ENGAGING THE PRIVATE SECTOR ON CLIMATE ADAPTATION



Below, are the five main steps to establish a new climate adaptation-focused collaboration between USAID and the private sector:



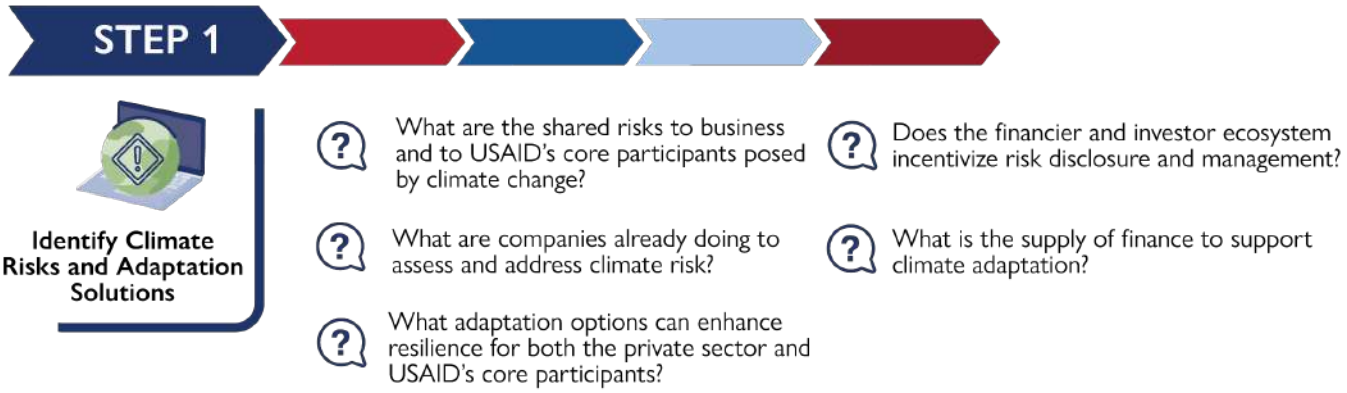
At each step, there are a set of strategic, technical, partnering, or procurement questions for USAID to address by getting out into the field and sourcing information directly from market actors. Depending on the Mission or Operating Unit context and when these questions are being considered, it may be that some of these parameters have already been defined through pre-existing assessments or analyses. In other instances, it may be necessary to commission a new upfront analysis before a partnership or engagement design process can begin.

This tool allows for varying levels of time and resource constraints and can be used at any point in the program cycle. Additionally, this tool does not need to be applied in sequence and should be used more as a reference document than as a step-by-step guide. USAID can jump to any one of the five broad steps depending on its use case. Finally, the questions in the tool are purposefully high level so that they can be applied across contexts. USAID will need to adapt these questions to the local context to which they are being applied before sourcing information from market actors.

There are a variety of use cases for this tool. For example, the tool could be used as part of a broader country strategic planning process or as part of the design of a flagship procurement. Additionally, the tool could be used to guide efforts that broadly and comprehensively evaluate opportunities to engage the private sector within a Mission's ongoing activity portfolio or in the context of developing, updating, or implementing a PSE Action Plan. Within these aforementioned use cases, the tool would help to identify the most strategic private sector partners.

Conversely, USAID may already have a specific company or companies in mind, identified in prior private sector outreach efforts, with whom the Mission would like to pursue collaboration or partnership. In such cases, USAID can skip Step 3 and might consider the questions under Steps 1 and 2 only as they specifically apply to the identified partner(s) rather than to broader industry.

Step I: Identify Climate Risks and Adaptation Solutions



The purpose of the first step is for Missions or Operating Units to define the shared climate risks to businesses across the focus industry or subsector, USAID's core participants, and areas where adaptation measures are most urgent in the geographies of interest. USAID can pose these questions directly to current and potential private sector companies in their network within the geography in question, as well as to relevant industry associations, business networks, and incubators. Consider referring to USAID's Climate Risk Screening and Management Tools as a resource to complement this first step.

A. What are the Shared Risks to Business and to USAID's Core Participants Posed by Climate Change?

What are the acute and chronic climate hazards in the geography being considered (e.g., more intense extreme weather events, heatwaves, extreme floods, drought, salt-water intrusion, sea-level rise, etc.)?

How exposed to climate hazards are business operations such as sourcing of commodities? How exposed are key partners such as suppliers? How have business operations or partners been affected in the past? How did those events affect profitability of the business and the livelihoods and well-being of USAID's core participant demographic who are suppliers, customers, or employees for key industries?

How are climate hazards making the communities where businesses are situated more vulnerable by threatening livelihoods, health, and housing and causing migration?

What existing vulnerabilities can make the risks worse such as inadequate infrastructure or limited access to healthcare?

What are the current capacities of businesses and USAID's core participants to adapt to climate impacts?

B. What are Companies Already Doing to Assess and Address Climate Risk?

How are businesses assessing risk and preparing for possible impacts? How might different types of companies assess risk differently?

Are the businesses using TCFD's recommendations (or other guidance) to assess their risk?

Do businesses have enterprise risk management systems in place to monitor and assess risks on an ongoing basis?

What are the most common climate risks that companies are identifying and how are they addressing these risks?

How are companies engaging with stakeholders, including investors, customers, and local communities, on issues related to climate risks and their management?

C. What Adaptation Options Can Enhance Resilience for Both the Private Sector and USAID's Core Participants?

The following questions aim to identify adaptation approaches that could benefit both the private sector and USAID's core participants. It is important to note that these options are not exhaustive and may vary depending on the specific needs and contexts of different regions and participants.

Which businesses are already investing in climate adaptation to reduce their physical risk? Can the adaptation solutions be expanded, scaled up, or leveraged by other business industries?

What efforts are companies making to advance resilience across and beyond the supply chain? How are companies engaging with suppliers and partners on resilience and adaptation to climate change? What plans exist to ramp up/expand these efforts in the future?

What kinds of investments are companies making in green and/or gray infrastructure to protect hard assets and to ensure supply chain continuity? Do companies incorporate climate-resilient design features in their infrastructure or assets such as flood-resistant building materials? Are companies using nature-based solutions?

What kinds of opportunities for adaptation-related products and services exist and how are these opportunities being exploited? (For example, climate-smart agriculture: implementing climate-resilient farming practices and utilizing drought-tolerant crops can help farmers adapt to changing weather patterns and reduce the impacts of droughts and floods on crop yields. Other examples can include: expanding access to climate data to make informed decisions about how to address climate risks, building supply chains for materials and infrastructure that address human well-being amidst extreme heat, or developing technologies to cut down water usage).

Are companies already investing in DDR? Are they expanding these efforts to look at other, longer-term climate risks?

What are the potential risks and trade-offs associated with different adaptation approaches for business and USAID's core participants and how can they be managed?

What challenges are businesses facing in identifying, implementing, funding, or scaling up the adaptation options?

D. Does the Financier and Investor Ecosystem Incentivize Risk Disclosure and Management?

What kinds of climate risk management standards are demanded by the commercial financial sector for lending?

Are financiers and investors demanding that businesses disclose the risks and financial impacts they face from climate change as well as the contingency plans to manage these risks? Do they view them as opportunities for innovation or transformation of their business models?

Has any business been incentivized by financiers or investors for disclosing and/or managing climate risks?

Has any business stopped receiving financing from financiers or investors due to climate risk or a lack of risk management? Who is they here? The firms or investors/financiers?

E. What Is the Supply of Finance to Support Climate Adaptation?

Do businesses and financiers see investments in adaptation as commercially viable, bankable, and/or creditworthy?

What are the barriers to mobilizing private capital for climate adaptation in this specific context?

Do any international institutions or donor governments provide any kind of concessional financing or guarantees to catalyze private investment in adaptation and/or fund important R&D efforts?

To what extent does this concessional financing help to address the misalignment between the finance timeline and the climate change impact timeline?

Do public-private partnerships already exist that blend financing from public and private sources to advance adaptation? What are these blended finance mechanisms and how successful have they been? What obstacles are they experiencing in identifying bankable deals and deploying capital (e.g., identifying pipeline, striking the right balance between ROI and impact)?

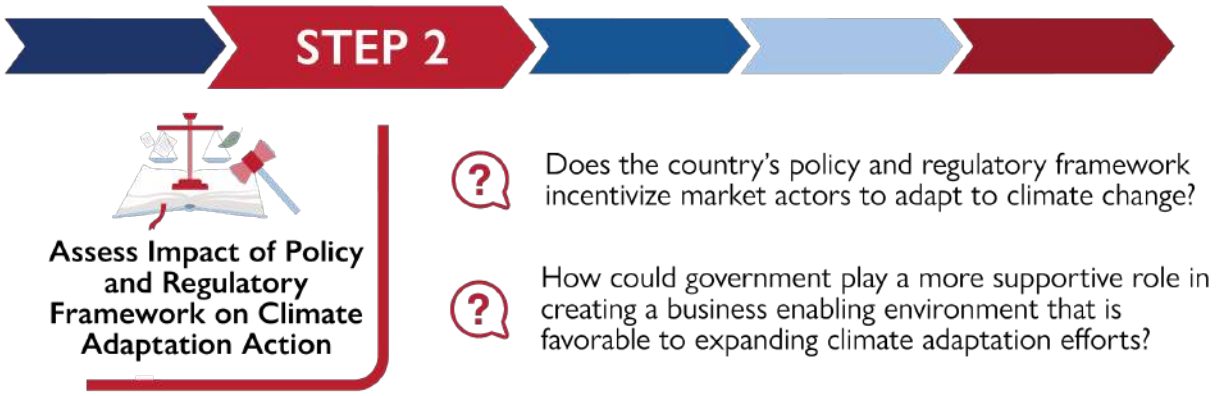
Do de-risking instruments exist to lower the overall capital costs of climate adaptation projects and to attract investment flows?

What kinds of other financial mechanisms exist to promote NbS to climate issues (e.g., green bonds, debt-for-nature/climate/adaptation swaps, ecological fiscal transfers, payments for ecosystem services, disaster risk insurance and reduced insurance premiums through adoption of adaptive measures)?

How is the country's public sector and/or international donors contributing to the scalability of these financial mechanisms?

What are gaps in catalyzing public and private climate adaptation finance, and what role might USAID take on to address these gaps?

Step 2: Assess Impact of Policy and Regulatory Framework on Climate Adaptation Action



This second step focuses on identifying public sector commitments, policies, regulations, and plans that may incentivize private sector action around climate adaptation within the focus sector and country. This step also uncovers the gaps in public engagement and public support for climate adaptation. Finally, this step identifies key areas where USAID can incentivize public action to foster a more favorable enabling environment for private sector led adaptation efforts to promote industry resilience and the resilience of USAID's core participants.

A. Does the Country's Policy and Regulatory Framework Incentivize Market Actors to Adapt to Climate Change?

What adaptation commitments were made in the country's NDC, National Action Plan, or other plans and policies? What progress has been made against those commitments? See the NDC Partnership and NAP Global Network for more information.

What longer-term adaptation priorities were included in the National Adaptation Plan if one exists?

Are policies and regulations in place that incentivize adaptation, such as mandated risk disclosures, land use regulations, subsidies, or tax incentives or penalties?

Are policies and regulations in place that disincentivize or stall adaptation, such as a lack of financial incentives, limited policy maturity, or fossil fuel subsidies that send mixed signals for investments in climate change-related initiatives?

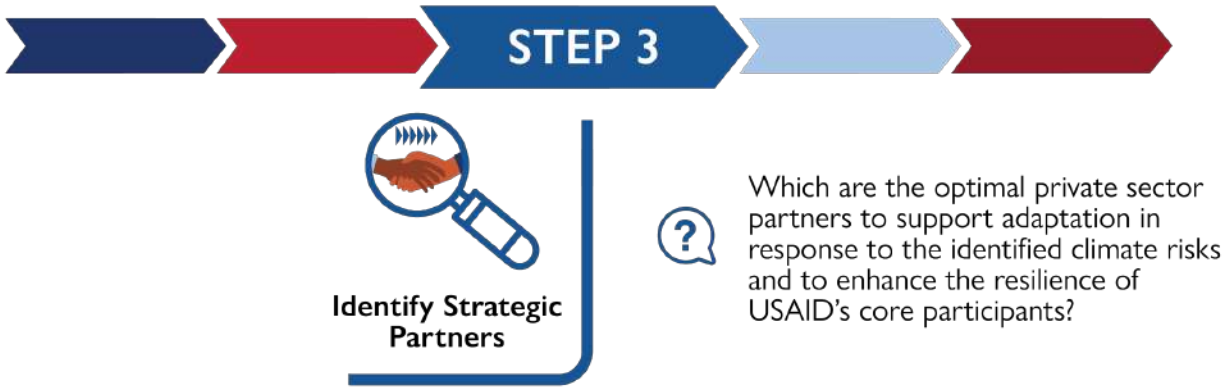
B. How Could Government Play a More Supportive Role in Creating a Business Enabling Environment that Is Favorable to Expanding Climate Adaptation Efforts?

Which new policies and regulations are needed to foster widespread action around climate adaptation?

How can the host government instill confidence within businesses, investors, and financiers in the continuity of its climate adaptation commitments despite potential administration changes?

What kind of public engagement or broader stakeholder participation is needed to advance adaptation?

Step 3: Identify Strategic Partners



The purpose of the third step is to identify strategic private sector partners in the market system with whom USAID could partner to advance adaptation objectives. A set of questions will help assess the roles, motivations, and influence of potential company partners in adapting to climate change. In exploring these dynamics, USAID staff can identify the private sector partner(s) that will allow USAID to have the greatest impact at scale and to drive forward innovation.

A. Which Are the Optimal Private Sector Partners to Support Adaptation in Response to the Identified Climate Risks and to Enhance the Resilience Of USAID's Core Participants?

What sectors are or will be most affected by climate risks in the focus geography?

Which sectors have the most vulnerable infrastructure, workforce, and transport and distribution networks, and are relied upon for critical services, such as health services delivery or food security?

Which companies, including MNCs, large regional/domestic players, and relevant SMEs, have the greatest presence in the geography in terms of operations, revenue, and employees? Which of these companies are most impacted by the climate risk(s)? Where do companies have capacities that are not available in the host public sector? Under what circumstances does it make sense to engage those private capacities for public benefit and when does it not? What are the potential benefits and trade-offs of doing so? For further guidance on identifying strategy partnership opportunities, see USAID's PSE Opportunities Tool.

Which companies employ or serve USAID's core participants through their supply chains?

With which potential partners, among the identified companies, could USAID most strategically support to drive forward innovation or to achieve the most systemic impact at scale?

Which companies might avoid the highest costs as a result of managing climate risk(s)?

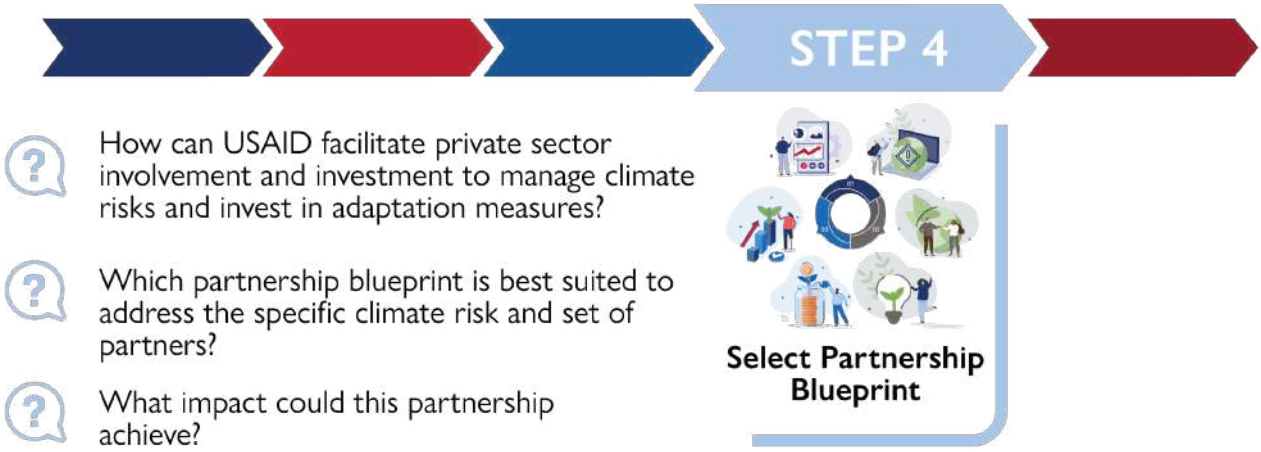
What do USAID and the company stand to gain from a potential partnership: Visibility? Reputational benefit? Influence? A seat at an important platform?

Has the potential partner ever been suspected or involved in greenwashing activities? Is there any news/analysis of greenwashing claims? Is the potential partner transparent and consistent regarding its climate strategy if it has one? Do the company's commitments align with its progress on KPIs? Here is a USAID public resource on how to conduct a due diligence and reputational risk assessment. USAID staff can also access the Agency's internal resource on conducting a reputational risk assessment.

Would there be a clear business case for the potential private sector partner(s) to address climate risks, or would efforts be more philanthropically oriented or fit within corporate social responsibility campaigns?

How is the ability of the identified potential partners to adapt to climate change constrained by the enabling environment? What kind of public sector engagement or support might be critical to facilitating action by the identified private sector partners, based on issues identified under Gaps Limiting Private Sector Investment in Climate Adaptation.

Step 4: Select Partnership Blueprint



Once the most impactful potential corporate partner (or set of partners) is identified, the fourth step is to consider whether and how USAID's collaboration might be essential to the potential partner(s) to test an innovation or scale an established climate adaptation approach. A set of questions will help to select a partnership model that best channels the partner's assets and capacities towards addressing the identified climate risk(s) and supporting adaptation efforts.

A. How Can USAID Facilitate Private Sector Involvement and Investment to Manage Climate Risks and Invest in Adaptation Measures?

Are there critical areas where the selected partner(s) has incomplete knowledge or insufficient capacity? (For example, does the selected private sector partner(s), in the specific sector, have knowledge and capacity to assess supply chain and operational risks from climate change? How strong is the selected private sector partner's(s') capacity in climate risk management? Does the selected private sector partner(s) have sufficient awareness and knowledge of viable climate adaptation approaches? Do companies have sufficient knowledge of climate adaptation-related technologies and how to appropriately use them?)

Are there critical areas where the selected private sector partner(s) cannot access information or broker relationships on their own? (For example: does the selected private sector partner(s) have access to climate risk data that can help inform decision-making? Is there sufficiently strong engagement between the selected private sector partner(s) and its suppliers? Are there key communications breakdowns across the private sector partner's(s') supply chain that are resulting in market failures?)

Based on the private sector knowledge gaps, capacity constraints, and supply chain breakdowns identified in the preceding questions, what role can USAID play to help market actors to adapt to climate change?

Why might USAID's engagement be necessary? Could the potential partner(s) advance the required climate adaptation approach, at sufficient scale, on their own, without USAID's support?

Is USAID's engagement essential to supporting the partner(s) to scale a proven product or service or to managing the risk for the potential partner to test a climate adaptation approach?

In what ways are USAID's assets—such as reputation as impartial broker, convening power, network, productive relationships with national and local governments— useful to the potential partner(s)?

B. Which Partnership Blueprint Is Best Suited to Address the Specific Climate Risk and Set of Partners?

Which partnership blueprint, if any, is best suited to the identified climate risk and/or adaptation issue?

Is there another partnership model outside of this guidance that would better address the climate risk and/or adaptation issue? If so, are there good examples of how that other model has been applied? What lessons can be drawn from those applied examples that can inform the design of the new partnership in question?

Which partnership blueprint corresponds best to private sector motivations and level of maturity in climate risk management to sustainably achieve the desired climate adaptation outcome?

C. What Impact Could this Partnership Achieve?

How will success in this potential partnership be defined? What standard USAID indicators apply to this partnership (e.g., EG11.6 or PSE standard indicators)? How will this be reported in performance plans and reports (PPRs)?

What are the desired and estimated outcomes of this engagement?

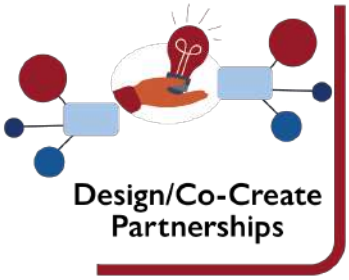
How will the partner's supply chain actors or customers become more resilient? What about other actors of interest to USAID?

What is the pathway to scale during the life of the partnership and beyond?

What are some tactics that USAID might use to ensure that the partnership helps to address systemic issues and that benefits accrue beyond the partner?

Step 5: Design/Co-Create Partnerships

- What should the private-sector partner(s) bring to the partnership?
- What is the best way to set up the partnership?
- What does USAID need to do to maximize the partnership's success?
- What are the key monitoring, evaluation, and learning areas for the partnership?



The purpose of the fifth step is for Missions/Operating Units and implementing partners to co-create a partnership in collaboration with the chosen private sector partner(s) under the selected partnership blueprint. A set of questions will help guide discussions to define shared value objectives, partnership activities, and both USAID's and the private sector partner's intended roles and contributions to implementation. USAID has additional guidance on co-creation. For audiences external to USAID, here is a series of public resources on co-creation, an interactive guide on co-creation, and some additional materials and videos on the topic. Additionally, please see this brief guide from USAID on co-creation and this brief guide on local private sector engagement. For USAID staff, see more guidance on engaging the private sector, co-creation at USAID, and legal topics.

A. What Should the Private-Sector Partner(s) Bring to the Partnership?

- Which activities are required to enable USAID and its corporate partner(s) to overcome challenges, catalyze change, and pursue additional opportunities?
- Which of the company's specific expertise, capabilities, and experience can be leveraged towards climate adaptation efforts?
- In which areas might the company require technical assistance or other support from USAID?
- What is the scope and size of partner financial resources that need to be committed to successfully operationalize the selected partnership blueprint?

B. What Does USAID Need to Do to Maximize the Partnership's Success?

What kinds of staff engagement, country, or subject matter knowledge, and/or financial resources must USAID deliver to achieve its shared objectives with the partner?

What needs to be done to manage the partnership? What decision-making modalities, communication channels, staffing, and relevant processes must be established?

How can USAID facilitate and nurture trusted and productive relationships between the partner company and other actors in the market system to enable replication and promote long-term sustainability of the adaptation approach?

What challenges should USAID anticipate and how might they be addressed?

How can USAID safeguard fair play in the market and avoid distorting the market through this partnership?

What is the scope and size of USAID's financial resources that need to be committed to successfully operationalize the selected partnership blueprint?

C. What Is the Best Way to Set Up the Partnership?

Can partnership activities and resources be embedded into or aligned with ongoing activities?

Does this new partnership require a procurement approach through a GDA, BAA, or other mechanism?

What is the most appropriate modality for the partnership? Is it a pay-per-performance milestone based grant to the partner? Is it technical assistance to the partner? Or does it make the most sense for the partner and USAID to co-fund a third-party implementer?

What is the scope and size of partner financial resources that need to be committed to successfully operationalize the selected partnership blueprint?

D. What Are the Key Monitoring, Evaluation, and Learning Areas for the Partnership?

Which of USAID's standard indicators on PSE or adaptation is the partner mutually interested in tracking and feels comfortable publicly disclosing so that others can learn from the partnership?

What are the key partnership milestones?

What are some of the key learning questions of mutual interest to USAID and the private sector partner? How can these questions be integrated into the learning agenda for relevant USAID buy-in mechanisms such as the Climate Finance and Development Accelerator learning agenda?

What is the theory of change and the vision for partnership success?

What is the vision for sustainability or exit strategy? How will the private sector partner be able to continue key activities beyond the partnership's period of performance and without further involvement and investment from USAID or from any other donor?

How can Missions and Operating Units elevate their learning and achievements from this partnership to a broader Agency and external stakeholder audience?

IV. PARTNERSHIP BLUEPRINTS

Context and Purpose

The following Partnership Blueprints are meant to serve as design models that development practitioners can use as a base from which to co-create partnerships alongside company counterparts, to advance climate adaptation solutions. The blueprints are comprehensive enough to serve as concrete implementation frameworks and broad enough to be adjusted to address the specific needs of different geographies and contexts. The blueprints fall under three pathways for USAID to provide additional and critical support to the private sector in scaling climate adaptation efforts, informed by the gaps in corporate action to address climate change identified in Section II:

1. Learning and strengthening capacity;
2. Making ecosystems resilient to climate threats; and
3. Developing financial tools and incentives.

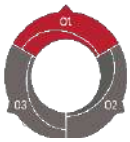
The Role of the Public Sector

The private sector has a critical role to play in advancing adaptation, providing new technologies, business models, and investment opportunities across a variety of sectors to help scale the transition to adapt to new climate realities.[53] However, companies can't act alone, and governments have an essential role in creating business environments that are favorable in successfully establishing widespread climate change adaptation. Many countries have already made adaptation commitments in their Nationally Determined Contributions (NDCs)[54] and have proposed strategies and priorities in national adaptation plans in alignment with the Paris Agreement.

Studies find that adaptation can deliver a high ROI for countries, cities, and companies. The net economic benefit of $1 invested in adaptation could result in a return of $2–10[55] while reducing the impact of physical climate risks and minimizing losses and damages from natural hazards. Despite the potential benefits, there has been limited government action on many adaptation-related commitments due to competing priorities, development and financing needs, lack of capacity and expertise, poor governance, and the inability to keep pace with the increasing frequency of natural disasters.[56]

The public sector has the potential to create an enabling environment to make businesses feel confident in investing in adaptation. By adopting a carrot and stick approach,[57] governments can use policy and regulation levers—such as mandated risk disclosures, land use regulations, subsidies, and tax incentives or penalties[58]—to foster widespread action around climate adaptation. The public sector can provide concessional financing or guarantees to catalyze private investment in adaptation and fund important research and development efforts. There is also an opportunity to establish public-private partnerships that include blended financing from public and private sources to advance adaptation.

Though the partnership blueprints are primarily concerned with USAID's direct engagement with companies, specific areas for collaboration with the public sector are also integrated into these design frameworks, where relevant. These areas of public sector engagement are critical to seeding systemic change to enhance the resilience of other actors in the market system beyond a single company partner.



Pathway I: Learning, Knowledge, and Capacity Building

Partnership Blueprint 1: Building the Business Case for Companies to Assess and Disclose Climate Risk to Boost Investor and Financier Confidence

[53] OECD (n.d.)
[54] NDCs are climate action plans defining targets and strategies to reduce emissions and adapt to climate impacts. NDCs are established by each Party to the Paris Agreement and must be updated every five years.
[55] The Global Commission on Adaptation, WRI (2019); approximate global net benefits
[56] UNEP (2021)
[57] EY (2022)
[58] *Ibid*

Business problem. Businesses worldwide are facing climate-related risks. For example, climate change can constrain access to natural resources vital for production, damage infrastructure, and disrupt essential transportation logistics for goods and services. Without fully understanding climate-related risks, companies are unable to adopt effective adaptation solutions, threatening all business functions, including strategy, finance, operations, marketing, compliance, and human resources. The negative impacts of climate change on business units can hinder a company's ability to maintain and secure critical finance and investment.

Factors constraining the private sector from involvement and investment. Companies want to protect the sustainability and financial stability of their business activities from climate threats, but they often do not have the internal know-how and capacity to perform risk assessments across their own operations and supply chains. This lack of understanding is in part due to the climate modeling data produced by leading scientific authorities, which are complex, disparate, inadequately translated, and poorly disseminated to the private sector.[59] As a result, businesses are not aware of the magnitude of climate risks specific to their sector, market, or region, and do not disclose critical climate risk data to financial stakeholders, such as investors or banks.

While the TCFD's recommendations provide a robust framework for businesses to grasp the types of climate risks and their ability to influence financial aspects, they do not provide step-by-step instructions on how to precisely assess their climate-related risks and evaluate their impact on financial statements. In addition, businesses also tend to be reactive to climate threats rather than taking proactive measures, like building long-term strategies to avoid future risk.[60] USAID can incentivize corporations to assess and disclose climate risk by underscoring the connection to investor confidence and ability to secure funding.

Interest of the private sector in using a market-based solution to address climate adaptation. By proactively recognizing, assessing, and disclosing their climate-related risks, companies can develop thorough knowledge of their operating environment, including the ability to prepare for and respond to climate-related threats. Climate-related risk assessments and disclosures enable businesses to meet investors' and banks' increasing expectations around climate risk transparency.[61] Climate risk reporting is essential for generating confidence in a firm's prospects for maintaining business continuity over the long-term, a prerequisite for retaining or securing new funding for business growth.

Potential partners. Potential partners include SMEs, larger regional or domestic companies, or business associations that are affected by climate impacts and do not have internal knowledge or capacity to assess climate risks.

[59] Detailed analysis of the constraining factors is provided in Gaps Limiting Private Sector Investment in Climate Adaptation.
[60] CDP Worldwide and the CDSB (2018)
[61] Detailed information regarding investors' expectations is in Current Drivers of Private Sector Climate Adaptation Efforts.

USAID's role in alleviating constraints by engaging or partnering with the private sector. USAID's efforts focus on demonstrating the business case—or rationale—for companies to assess and disclose their climate risk to secure investor and bank financing.

Specific activities could include:

- Developing business cases for sectors or commodities in markets exposed to elevated climate risks or that have suffered significant, recent losses due to climate hazards (e.g., rice, maize, Arabica coffee) by hiring climate scientists to analyze projections of climate risks relevant to specific business interests and economists to undertake an assessment of the financial impacts on business (e.g., cost of doing nothing) of the climate-related risks identified per sector or commodity in the market.
- Leveraging and mainstreaming existing analyses developed by USAID and other organizations of climate impacts on agricultural production and crop resilience to those impacts (e.g., temperature tolerance thresholds in coffee production).
- Convening private sector stakeholders within specific sectors or commodities in markets to disseminate the information derived from sector- or commodity-specific business modeling approaches inclusive of the climate-related risks' financial impact on business and train them on the TCFD framework for assessing risks and disclosing high-quality, consistent data, which investors and banks are increasingly seeking from companies.

Expected results. The expected outputs include: the number of climate risk analyses conducted, the number of models developed for sectors or commodities in a market, the number of companies trained on the TCFD framework and quality disclosures, and the number of companies disclosing climate risks in alignment with the TCFD, one year after being trained. The expected outcomes include: useful climate decision models for the private sector in specific sectors or regions so companies are able to understand how climate change affects their operations and supply chains and make informed decisions; more public, concrete, and reliable TCFD-aligned disclosures; and better informed investors and financiers of companies' climate risks, boosting investor and financier confidence in these companies and attracting additional financing.

Partnership Blueprint 2: Strengthening Business Capacity to Establish Climate Risk Management Systems

Business problem. Risk management systems are vital mechanisms to monitor, prepare for, and develop interventions to minimize the negative impacts resulting from increasingly frequent and intense climate-related events. Climate change is a material risk to the private sector, yet many SMEs— and even larger national or regional firms—are woefully underprepared for inevitable climate events and lack the risk management systems that would help them navigate climate risks, build adaptation solutions, and foster their resilience. Without risk management systems, businesses tend to be reactive to climate impacts, resulting in greater costs for restoration, rebuilding, or rerouted goods and services. As companies face more severe and frequent impacts from climate change, the reactionary mindset can be costly and devastating for business continuity.

Factors constraining the private sector from involvement and investment. The potential physical impacts from climate change are often difficult to analyze and make immediately relevant for a company, sector, or geographic region and therefore, setting up a risk management system to address these threats can be challenging. Furthermore, companies lack easily accessible and applicable pragmatic tools to build out climate risk management systems.

Many SMEs, and sometimes even larger local firms, do not have a complete picture of their climate-related risks, nor do these enterprises always have the expertise and capacity required to address them. Barriers to alleviating climate-related risks include: limited understanding of risk monitoring and management, uncertainty around risk mitigation and the effectiveness of varied adaptation solutions, and ambiguity around the financial benefits or ROI of adaptation solutions, which impedes internal alignment on the adaptation investment. The TCFD does not provide guidance on how to mitigate risks or identify appropriate adaptation solutions, nor does it offer analysis on the costs and benefits of risk interventions and adaptation solutions. Thus, there is a clear knowledge and tool gap that must be closed to catalyze corporate action.

Interest of the private sector in using a market-based solution to address climate adaptation. Establishing a climate risk management system can empower companies to become more resilient against all threats. Climate risk management systems include mechanisms to ensure business continuity and help companies avert losses over the long-term, which are also applicable to non-climate threats.

Firms may be additionally incentivized to establish such risk management systems due to the rise of climate-related risk disclosure legislation in different regions. Climate risk management systems not only improve the quality and consistency of disclosures but also aid companies in circumventing heightened regulatory risks and compliance issues.

Moreover, as described in Partnership Blueprint I, transparency and regular disclosures are critical for investors. To preserve or acquire stable capital flows, companies will need risk management systems.

Potential partners. Potential partners include: SMEs, larger regional or local companies, or business associations whose membership is affected by climate change yet lack internal knowledge or capacity to assess climate risks, and public regulators.

USAID's role in alleviating constraints by engaging or partnering with the private sector. To assist local firms in establishing and properly utilizing climate risk management systems, USAID would offer strategic advisory and coaching support focused on:

- Creating templates for climate risk management systems by sector or commodity for a specific market that companies could embed within their own operations. To do so, USAID or its implementing partner would hire a team comprising the following experts: a business risk management systems advisor, a technical climate adaptation expert to identify solutions to address the risks, and a financial advisor to calculate, at a high level, the financial costs, benefits, and ROI of the adaptation solutions.
- Convening businesses to train them on how to use and adopt the climate risk management system templates.

- Providing one-on-one, ad-hoc risk, adaptation, and/or finance advisory support to a select set of businesses that have attended the training as they leverage the templates to set up and implement their own unique climate risk management systems.

- Engaging regulators to promote private sector risk disclosure mandates and supporting the relevant public authority to establish risk disclosure frameworks and guidance, aligned with both international best practice and local regulations, to facilitate firm compliance with the disclosure mandates.

Expected results. The expected outputs include: the number of sector, commodity, or geography-specific climate risk management system templates, and the number of companies trained and actively using a climate risk management system. The expected outcomes include: user-friendly and effective climate risk management systems for companies to manage climate risk and invest in adaptation; more concrete, reliable, and precise climate-related disclosures for public consumption and consultation; and more informed investors of companies' climate risks, boosting investor confidence in these companies.

Pathway II: Making Ecosystems Resilient to Climate Threats

Partnership Blueprint 3: Promoting Adaptation Solutions within Buyer-Supplier Coalitions

Business problem. When suppliers are affected by the physical impacts from climate change, negative repercussions are felt throughout the entire value chain, including buyers. For example, drought can destroy crop yields, shrinking supply and flooded facilities can halt manufacturing, limiting production. Adaptation solutions[62] can help companies adapt to climate change and build resilient business operations and supply chains. One promising category of adaptation is NbS, which includes planting trees and shrubs around or among crops or pastureland to reduce run-off, soil erosion, and nutrient-leaching; seeding natural vegetation that retains rainwater and reduces flooding near critical infrastructure; and restoring mangrove forests to protect coastal ecosystems and properties. Other adaptation solutions include enhancements to gray infrastructure, such as irrigation technologies to sustain yields during drought, or heat-resistant paving materials to keep manufacturing zones cool from rising temperatures.

While adaptation solutions can help companies adapt to climate change, suppliers—particularly SMEs—often lack the knowledge and capacity to adopt these solutions. Though corporate buyers have a vested interest in supporting their suppliers to implement these solutions—supply chains are often too large and complex for effective buyer-supplier collaboration and coordination on climate adaptation at scale.

Factors constraining the private sector from involvement and investment. Many supply chains are highly fragmented, which limits buyers' ability to identify their suppliers across different tiers of the

[62] Detailed exploration of the mentioned adaptation solutions is provided in Closing the Climate Adaptation Gaps: Promote Private Sector Climate Adaptation Solutions.

supply chain—precluding any type of collaboration around climate risk reduction. As a result, SMEs—often the last tier of the supply chain—are not engaged or included in the exploration of how to address the climate risks felt across the value chain. Additionally, while buyers may often be better resourced and better networked than suppliers, they too often lack the internal expertise to independently identify effective adaptation solutions to address climate risks or to implement pilots.

There are existing coalitions (e.g., ASEAN Coffee Federation, Global Coffee Platform, Roundtable on Sustainable Palm Oil, Fashion Industry Charter for Climate Action, etc.) that demonstrate successful buyer-supplier collaboration on sustainable business practices and greenhouse gas emissions reductions; however, the vast majority of these coalitions have yet to integrate climate adaptation into their core agendas and strategic priorities.

Interest of the private sector in using a market-based solution to address climate adaptation. Buyer-supplier coalitions can serve as valuable networks for facilitating widespread adoption of viable adaptation solutions. These coalitions have proven that collaboration on issues within a sector, or focused on a commodity, can drive positive impact. For example, the Roundtable on Sustainable Palm Oil (RSPO) claims that their efforts and certifications produce a 35 percent lower climate change impact compared to non-certified palm oil.

For buyers, providing resources to suppliers for implementing adaptation solutions can contribute to safeguarding supply chain productivity and their business continuity amidst accelerating climate threats. Buyers can also enjoy reputational benefits by spearheading initiatives that support companies at origin to cultivate resilience through climate adaptation measures.

For suppliers, collaboration with buyers on adaptation can unlock new resources to increase productivity, build capacity on climate risk reduction, limit financial losses, and enhance relationships with their clients.

Potential partners. Potential partners include existing buyer-supplier coalitions made up of buyers (e.g., MNCs or large regional companies) seeking to build resilience within their supply chains and suppliers (e.g., local SMEs) that are directly exposed to climate risks.

USAID's role in alleviating constraints by engaging or partnering with the private sector. In this blueprint, USAID's main role is that of an advocate for and a champion of coordinated action around climate adaptation within buyer-supplier coalitions. Specific activities could include:

- Identifying and convening existing buyer-supplier coalitions in specific sectors or commodities that face significant risk from climate threats but lack adaptation as part of their core agendas. USAID would make the case to these coalitions for the inclusion of climate adaptation as a strategic priority, activate each stakeholder's participation, and build energy and momentum around taking coordinated action to deploy adaptation solutions (e.g., green or gray infrastructure or new adaptation products and services) throughout the supply chain.
- Increasing coalitions' awareness of climate risks and incentivizing action to introduce adaptation solutions to address those risks. To do so, USAID or its implementing partners could:

    - Hire technical advisors to evaluate the most viable adaptation solutions for a specific context and offer trainings that illustrate, at a high level, the climate risks facing the buyer-supplier's specific sector and the potential adaptation solutions to address those risks.

    - Hire technical advisors to develop adaptation guidance for the sector within which the coalition works. These recommendations would cover how to assess climate risks, how to identify the most effective adaptation solutions, a high-level cost-benefit analysis per solution, and a monitoring and evaluation process. The buyer-supplier coalition can disseminate the technical guidance to its members.

    - For example, in the coffee sector, an NbS[63] technical advisor could identify the climate risks facing the top five coffee producing countries, the types of NbS that may be appropriate per climate risk and location, and the environmental, social, and economic benefits of implementing the NbS. The training could enable increased visibility of shared risks and opportunities across the value chain, help identify potential areas for collective action, and opportunities for piloting programs in specific markets (e.g., coalescing a consortium of coffee growers to test NbS to combat heat and drought in Huila, Colombia).[64]

    - As another example, an engineer could identify the appropriate gray infrastructure (e.g., gutters, drains, pipes, retention basins) to protect companies' assets from changes in precipitation and raise awareness among the coalition members around the costs and benefits of such adaptation solutions.

    - Offer one-on-one, ad-hoc advisory support to the firms within the targeted coalitions as they implement the selected adaptation solutions.

- Hiring a supply chain or procurement technical advisor to develop a tool to assess sector-specific climate risks and viable adaptation solutions to augment buyers' procurement checklists and supplier audits. For example, the tool could be a questionnaire to gauge suppliers' awareness of local climate risks, capability to determine effective adaptation solutions, investment in solutions, needs for resources to implement solutions, and measurement framework. Through this tool, buyers could determine where the highest levels of climate risk or widest awareness gaps exist within their supply chain. Buyers could also use the tool as an opportunity to improve and increase communication between buyers and suppliers, as well as to ensure consistent, quality supplies in the face of climate change.
- Sharing learning, best practices, and case studies on effective solutions implemented by specific coalitions with a broader audience.

Expected results. The expected outputs include: the number of coalitions engaged, number of people trained, number of companies supported to adopt adaptation solutions, number of tools or resources

[63] Natural vegetation to protect cropland, coastlines, and facilities may differ per location, and an NbS technical advisor can consider a range of factors to ensure optimal solutions are introduced (e.g., native rather than invasive plant species are used).

[64] For guidance on piloting NbS, see Partnership Blueprint 4: Piloting Nature-based Solutions to Strengthen Enterprise the Resilience.

created to assess climate risks and identify the relevant adaptation solution, and number of tools created to support procurement checklists and supplier audits. The expected outcomes include: buyers and suppliers are informed about the range of viable adaptation solutions as a means to mitigate climate risk, suppliers are effectively implementing adaptation solutions, and supply-chain coordinated action is enhanced to scale the adoption of adaptation solutions across a value chain and strengthen relationships between buyers and suppliers.

Partnership Blueprint 4: Piloting Nature-based Solutions to Strengthen Enterprise Resilience

Business problem. Firms across all sectors face rising physical and financial costs as climate change endangers business production and continuity. For example, storm surge can substantially damage hospitality properties, flooding can lead to crop losses, and heatwaves can decrease manufacturing worker productivity. As the physical impacts from climate change worsen, the private sector will face increasing climate risks and impacts to their financial bottom line. These businesses will consequently be forced to adapt to climate change to maintain business stability.

Many countries have made adaptation commitments that include NbS in their NDCs and National Adaptation Plans, proposing that NbS can help to protect communities and the economy from climate change. Although NbS are being mainstreamed at the governmental level, implementation of these solutions are not happening fast enough to adequately respond to current and expected climate impacts. The amount of international public funding dedicated to NbS is relatively small, accounting for approximately 0.6–1.4 percent of total climate finance flows. Using a broader range of funding instruments can help catalyze and crowd-in investments from the private sector.[65]

Factors constraining the private sector from involvement and investment. Of all sectors, FBA is most incentivized to implement NbS to maintain business continuity. Raw materials that serve as key ingredients and essential resources are already under strain—and in greater and greater frequency—from flooding, drought, and heatwaves. For instance, the Coca-Cola Company is employing green infrastructure through revegetation in Monterrey, Mexico, to mitigate the impacts of flooding and stormwater runoff,[66] and Heineken is implementing inter-cropping practices on barley fields in central Mexico in response to intensifying drought.[67] Despite these examples, NbS are not being deployed at scale across this vulnerable sector.

NbS can also be implemented by non-FBA sectors to protect valuable assets. For example, the manufacturing sector can install green roofs on facilities to keep infrastructure and workers cool and textiles free of mold amid rising temperatures and humidity. Yet, emerging results from the analysis of current climate adaptation efforts by the private sector, discussed in Current Climate Adaptation Efforts by the Private Sector, highlight how NbS are rarely adopted in sectors outside FBA. Some companies may not feel the threats are immediately apparent to justify investment, have the know-how or

[65] WRI (2021)
[66] The Nature Conservancy (n.d. (c))
[67] Global Compact CEO Water Mandate and Pacific Institute (2020)

resources to investigate solutions, or have incentives to do so. Relatively few case studies exist on the use of NbS for climate adaptation, which limits sharing of knowledge, learning, and best practices.[68]

NbS can vary in size and scope. Solutions range from small-scale, on-site projects for agricultural yields or facilities to larger scale projects, such as safeguarding upstream water supplies for use in FBA products. Large-scale NbS can require coordination and collaboration between multiple businesses within a sector and region, as well as with local and national governments, utility providers, and communities. In multi-stakeholder coalitions, however, an independent, third-party partner is essential to broker trusted relationships through pre-competitive collaboration.

NbS requires financing, collaboration, technical capacity, monitoring systems, and open-sourced lessons learned. Because businesses often have limited resources to identify and experiment with NbS, strong partnerships with donors and the public sector are essential to ensure the effective design and implementation of NbS, especially at a larger scale.

Interest of the private sector in using a market-based solution to address climate adaptation. As climate risks continue to increase in frequency and severity, businesses will seek opportunities to protect and prepare their assets, including operations, supplies, and transport and logistics of goods and services. Adaptation will be considered as contributing to their economic self-interest.[69] NbS can help businesses increase operational efficiency, including improving water and energy management on farmlands and in facilities, and avoiding future costs associated with disruption and damage.

With the launch of the TNFD, which recommends that businesses shift from harming the environment to protecting and preserving ecosystems, investors will increasingly demand that businesses integrate conservation and restoration activities into their core business operations. To satisfy investors and secure capital, companies will want to deploy NbS where appropriate.

Potential partners. Potential partners include: regional and local companies operating within sectors (e.g., agriculture, manufacturing, hospitality, technology, etc.) or focusing on specific goods and commodities (e.g., rice, maize, Arabica coffee, fishery, apparel, electronics, etc.) exposed to high climate risks or which suffered significant, recent losses due to climate hazards[70] and can implement NbS on the ground; MNCs and large regional companies that want to support and invest in NbS solutions within their supply chain; and policymakers.

USAID's role in alleviating constraints by engaging or partnering with the private sector. To promote the uptake of NbS across the private sector, USAID could enter into multi-stakeholder partnerships with firms operating in sectors that are particularly exposed to climate change. Specific roles and stepwise activities may include:

- Convening and engaging several companies within a high-risk sector in a specific market or region to increase awareness of the climate-related risks to their operations and supply chains

[68] Climate ADAPT 2022.
[69] The Global Commission on Adaptation, WRI (2019)
[70] Assets include natural, operational (e.g., infrastructure, production, logistics), and human resources, among others.

and promote climate adaptation solutions for increased business resilience. Examples include hospitality-sector companies with properties along a shared coastline, large FBA MNCs and the farmers in their supply chains, and large electronic brands and manufacturing suppliers that often share or occupy space in the same industrial park.

- Collectively identifying the climate-related risks disrupting logistics, affecting worker well-being, destroying crop yields, or damaging infrastructure.

- Developing a governance structure to represent all stakeholders' interests and partners' contributions through defining key roles and responsibilities for all parties to facilitate mutual accountability. The governance structure would be responsible for drafting and generating stakeholder feedback and buy-in into a monitoring and evaluation plan to measure the impact of the pilot program, which would consist of a timeline and KPIs from inception to pilot activation, and annual progress reporting.[71]

- Serving as an independent partner to broker trusted relationships between competitors and facilitating cross-sector collaboration in a pilot, strengthening relationships between MNCs or large regional buyers and their SME suppliers, instilling confidence among companies that guidance is led by leading authorities in climate adaptation, and de-risking companies' investment by co-funding the solutions and unlocking both cash and in-kind resources.

- Hiring adaptation technical advisors to analyze the local ecosystem and identify the appropriate NbS to address the climate risks given NbS should be site-specific[72] and providing technical support to implement NbS on-the-ground whether that is on farmland, at a manufacturing site, or on a hotel property.

- Training for implementation, management, and maintenance of the NbS. For example, USAID and its implementing partners could train farmers on new agricultural practices, such as soil preparation or irrigation to cultivate new vegetation, facility operators on how to manage new green roofing installations, and coastal resort operators on how to maintain and monitor mangrove restoration.

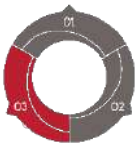
- Aggregating information for and developing and disseminating case studies on the impact of the pilot programs to replicate and scale NbS across different markets.

- Engaging local policymakers to promote an enabling environment favorable to NbS implementation. Options can include establishing subsidies or tax incentives for companies investing in NbS—or more broadly, establishing public-private partnerships and blended financing approaches, such as developing compensation mechanisms to support the provision of ecosystem services (e.g., flood control).

Expected results. The expected outputs include: the number of sectors and companies within each sector engaged in detecting climate risks and NbS, the number of pilot programs identified, the number of governance structures and monitoring and evaluation plans created to support NbS pilot programs, the number of enterprises trained on NbS to implement pilots, the number of pilot programs

[71] Timelines and KPIs will vary per pilot size, scope, and location. Social and ecological elements of different NbS projects (e.g., reforestation of agricultural lands as opposed to implementation of a green roof on a manufacturing facility) require tailored timelines and KPIs.
[72] Environmental Science and Policy (2019)

implemented, and the number of case studies developed as a result of successful pilot programs. The expected outcomes include: enhanced knowledge and use of NbS by enterprises, reduction of enterprises' climate risks and associated costs, strengthened assets, healthy biodiversity, and communities less vulnerable to climate risk.



PATHWAY III: DEVELOPING FINANCIAL TOOLS AND INCENTIVES

Partnership Blueprint 5: Scaling Up Parametric Insurance to Incentive Adaptation Solutions

Business problem. Global losses from natural disasters reached $280 billion in 2021, while only $120 billion was insured.[73] Although the insurance gap decreased over the last few decades in industrialized countries, it remains unchanged at around 90 percent in developing countries. Extreme weather events will increase in frequency and severity because of climate change, and regional and local companies will face increasing costs from disruption or damage to assets. Without insurance, these costs could be insurmountable. At the same time, traditional indemnity insurance does not fully cover such climate risks as extreme weather events. Parametric insurance, also called index-based insurance, can provide businesses coverage for such extreme events, and enable quick payouts, but it is not widely adopted.

While remaining largely uninsured against climate risk—either due to the lack of availability of viable insurance policies or lack of awareness regarding the need to be insured—companies are also not investing in adaptation solutions to lessen or avoid current and future damage from a changing climate. As a result, companies risk double jeopardy—lack of preparedness to rebound from climate risks, such as extreme weather events, and the lack of funds to rebuild.[74]

Factors constraining the private sector from involvement and investment. There is limited awareness and incentive among businesses to both buy insurance and invest in adaptation, and while insurance package options are expanding, they still fall short of need.

Regional and local businesses, particularly SMEs, tend to take reactive rather than proactive measures (e.g., buying insurance and implementing adaptation solutions) to address their climate risk. Because small business owners often underestimate the likelihood and severity of natural disasters, they may not perceive insurance coverage as a worthwhile purchase. Additionally, the claims process for traditional insurance coverage is too long for most small business owners to perceive them as valuable. As mentioned above, an alternative option to overcome this barrier is parametric insurance, which offers more timely payouts after extreme weather events strike. Furthermore, parametric insurance ensures lower risks of cash flow problems due to contract penalties and potential revenue losses because of pre-agreed payout amounts and fixed pre-specified triggers. Awareness of these products remains low

[73] Munich RE (2022)
[74] See Gaps Limiting Private Sector Investment in Climate Adaptation: Limited Finance and Unclear Financial Business Planning.

among businesses.

Despite its benefits, there are several challenges to scaling parametric insurance, especially among small business owners in development markets. Insurance is not widely bought in developing markets due to limited product availability and restrictive costs. Additionally, insurance brokers are largely unaware of parametric insurance, which further limits the product from gaining traction. Another challenge is that tailoring parametric insurance products to address the needs of a specific market requires significant upfront investment that could push up the price of premiums, making these products unattractive to customers.

As explored in Section II, Private Sector Practices in Climate Adaptation for Resilience, while viable adaptation solutions exist, they are still far from being mainstreamed in the private sector due to limited finance, misaligned financial business planning, and lack of internal expertise and capacity.[75] Private sector engagement in adaptation strategies, plans, and solutions is currently narrow, and implementation is not happening at the pace necessary to address current and projected climate risks. As a result, businesses are ill-equipped to manage the inevitable impacts from climate change. Lastly, if companies are uninsured, they are unable to recoup financial losses following catastrophic events.

Interest of the private sector in using a market-based solution to address climate adaptation. Insurance companies and brokers can incentivize regional and local companies to purchase insurance by offering lower premiums to those investing in adaptation solutions to protect their assets. For example, a company that invests in mangrove restoration to reinforce coastal property or plants vegetation and trees to reduce high temperatures may be eligible for lower premiums. Insurance companies would favor businesses that implement adaptation solutions, as such solutions lower their risk threshold. Insurers can then expand their product offerings and enter new markets to increase revenue by providing parametric insurance to companies in developing countries where it is needed most.

As climate change continues to threaten business continuity, parametric insurance can protect companies from exorbitant costs of damage or disruption. Under parametric insurance, an extreme weather event will trigger quick payouts, providing liquidity when it is most needed. The transparent and objective determination of the pay-out procedure—based on climate data and analytics—guarantees an expedited process for businesses, thereby removing the lengthy claims process. Additionally, the discounted premium will allow businesses to allocate budget to the implementation of adaptation solutions, enhancing the resilience of the company.

Potential partners. Partners are likely to be: global and local insurance providers that can offer parametric insurance, insurance brokers that sell insurance directly to businesses and receive commissions, regional and local companies that need support to respond to increasing climate threats, and policymakers.

[75] To explore further the reasons why adaptation solutions are not being mainstreamed, see Gaps Limiting Private Sector Investment in Climate Adaptation.

USAID's role in alleviating constraints by engaging or partnering with the private sector. To promote adaptation among local and regional companies, USAID would support the development of parametric insurance coverage, leveraging discounted premiums to scale implementation of adaptation solutions. Specific activities could include:

- Convening insurance providers and insurance brokers to train brokers on how pay-outs are triggered and can be calculated for uninsured regional and local businesses based on their sector and needs (e.g., risks to infrastructure or risks to crop yields), develop and calculate the premium discount that regional and local business can receive for investing in adaptation solutions, develop a list of criteria to validate and certify adaptation solutions that would warrant a discounted parametric insurance premium (with the assistance of technical adaptation experts), and formalize the product offering with the discounted premium to be offered to the market.

- Serving as a trusted independent partner to provide informed but unbiased guidance on insurance coverage for businesses and broker relationships between insurance companies, brokers, and uninsured businesses.

- Deepening penetration in a market for parametric insurance by convening global and local insurance providers and brokers that need to engender greater awareness of their offerings among regional and local businesses facing significant climate risks to their assets, and drawing the connections for businesses by conducting trainings and sharing insurance companies' case studies that demonstrate the need for and benefits of parametric insurance among businesses and how pay-outs are triggered.

- Hiring risk management and climate adaptation advisors to develop case studies demonstrating the value of adaptation solutions to mitigate climate risks and associated costs, disseminate e case studies locally and throughout USAID's networks globally to facilitate learning and knowledge-sharing, and create tutorials for businesses to understand how to receive discounted insurance premiums.

- Engaging local policymakers to encourage insurance companies to incentivize adaptation solutions by subsidizing the premium discount.

- Supporting policymakers to consider policy options that would directly incentivize firms to adopt adaptation solutions, such as tax incentives.

Expected results. The expected outputs include: the number of insurers and brokers expanding parametric insurance; the number of new parametric insurance offerings in the market; the number of discounted premiums, linking parametric insurance with adaptation solutions; the number of new SMEs covered by parametric insurance; and the number of new adaptation solution projects implemented to achieve discounted premiums. The expected outcomes include: enhanced knowledge of parametric insurance products by local insurance providers, brokers, and local and regional companies; new or expanded markets for parametric insurance and investment in adaptation solutions; reduction of climate risks and associated costs on behalf of local and regional companies; and strengthened assets, thriving biodiversity, and safer communities through improved insurance coverage and adoption of adaptation solutions.

Partnership Blueprint 6: Attracting Private Sector Financing for Adaptation Solutions by De-risking Investments through Blended Finance

Business problem. Even if companies understand their climate risks and identify adaptation solutions to mitigate these risks, financing options are scarce. Businesses find that the ROI for such solutions is uncertain and difficult to estimate, limiting their investment in adaptation solutions. Furthermore, climate adaptation solutions are developed to address climate risks happening both today and over the long-term—10-50 years in the future—exceeding traditional business plans that are concerned with the next three to five years. This discrepancy constricts company-wide internal buy-in and alignment on financing adaptation solutions. The financial services industry, including banks and private-equity firms, view the return on this type of investment as uncertain and risky, effectively leaving companies without financing options to implement adaptation solutions. In the specific case of NbS, annual investment is $133 billion, of which 86 percent comes from public finance. Annual investment will need to triple by 2030 to meet global climate change targets and halt biodiversity loss.[76] To de-risk NbS investments for the private sector and attract financing from businesses and the financial services industry, the public sector can leverage its funds and help create catalytic and innovative funding structures using blended finance to enable greater adoption of NbS.

Factors constraining the private sector from involvement and investment. The private sector, including corporate and financial institutions, is no stranger to financing innovation, but momentum only builds once companies find ways to de-risk opportunities for investment. NbS (e.g., watershed restoration) and technological approaches (e.g., drought-tolerant seeds) to adapt to climate change can be expensive, nascent to the market, and few case studies may exist on their ROI. This level of uncertainty can prevent the private sector from being early adopters and financers of adaptation solutions.

Interest of the private sector in using a market-based solution to address climate adaptation. Blended finance can be a powerful way to de-risk investment in adaptation solutions, such as product development that can build sector-wide resilience as well as NbS that can offer multiple benefits to the environment and to local communities. The creation of financial structures for both public and private financers to deploy capital alongside each other—combining concessional financing and commercial funding, respectively—can make accessing capital cheaper for companies.[77] For private financers, blended finance provides opportunities to access new markets, creating new, attractive, and commercially viable products under more favorable conditions.

Blended finance mechanisms can make projects more affordable for businesses seeking funding to implement adaptation solutions, and by investing in adaptation solutions, businesses can boost investor confidence that they are addressing their climate risks, creating a virtuous cycle to scale up climate adaptation.

[76] UNEP (2021)
[77] Hatashima, Hiroyuki & Demberel, Unurjargal. (2020)

Potential partners. Partners could include: businesses that want to invest in adaptation solutions (mostly MNCs) and to implement solutions (mostly regional and local companies), financial institutions (such as commercial banks and private equity firms) to generate capital, other public or philanthropic funders, and policymakers.

USAID's role in alleviating constraints by engaging or partnering with the private sector. To unlock private capital for adaptation solutions, USAID could focus on the following activities:

- Identifying climate risks and solutions[78] by convening sectors or commodities within that market—including MNCs, regional and local companies—and hiring climate technical advisors to help pinpoint companies' climate risks (e.g., pest infestation and soil erosion affecting coffee growers, coastal erosion, or salinization of freshwater ecosystems) and identify the solution to address those risks (e.g., new vegetation and intercropping, planting mangroves, accurate forest monitoring, etc.).

- Building the business case to invest in adaptation solutions by hiring financial advisors to calculate, at a high level, the costs businesses will incur over time by not mitigating the climate risk as well as the financial benefits adaptation can provide.

- Offering pre- and post-investment technical assistance to companies that want to address their climate risk through the implementation of adaptation solutions to define, study, refine, and develop the investment project concept to the point that it can raise implementation financing. Once a deal is complete, offering post-investment technical assistance to strengthen commercial viability of the adaptation project and enhance its impact on operational, organizational, and supply chain resilience.

- Designing the blended finance structure (e.g., commercial debt/equity, concessional debt/equity, guarantee, insurance, grant) that provides incentives for all partners to invest,[79] drawing in private capital providers, (e.g., banks, private-equity, or venture capital firms) and facilitating transactions.

- Developing a governance structure for assessment, oversight, and management of the funded solution and establishing a monitoring and evaluation plan to measure its financial impact. A strong governance structure is essential in effectively executing the investment project when there are multiple partners and stakeholders involved.

- Developing and disseminating case studies to demonstrate the impact of the funded adaptation solution and the associated financial return[80] to facilitate replication across different markets and companies of all sizes.

- Engaging governments on how to most effectively deploy concessional financing to incentivize private sector adoption of adaptation solutions outlined in countries' NDCs and National Action Plans. Other options could include engaging with the public sector to roll out tax incentives or subsidies to firms adopting a select set of adaptation solutions.

[78] For more information on identifying climate risks, solutions, and building the business case, see Partnership Blueprints 1 and 2.
[79] USAID (2020b)
[80] Timelines associated with the ROI depend on several factors such as the type of project, its size, and the geography. This activity should be tailored for each project to be meaningful.

Expected results. The expected outputs include: the number of new adaptation projects (e.g., new products or NbS) that are funded with blended finance, the amount of funding mobilized, and the amount of private sector capital unlocked through blended finance, and the number of case studies developed and disseminated. The expected outcomes include: mobilization of new private capital for the adaptation solutions, effective and efficient public-private partnerships to develop successful adaptation projects funded by blended finance, and the scale up of adaptation solutions to promote resilience.

V. VIGNETTES

Photo Credit: Tree Seedlings in Haiti for Reforestation, Steve Goertz

Partnership Blueprint 1:
Building the Business Case for Companies to Assess and Disclose Climate Risk to Boost Investor and Financier Confidence


Photo Credit: USAID APIK Activity

USAID Adaptasi Perubahan Iklim Dan Ketangguhan (APIK) Activity, a Place-based Approach to Building Resilience in Indonesia

This vignette highlights how international development agencies can partner with the private sector to strengthen the capacity of businesses to assess and disclose climate risks. Greater understanding of climate risks can help businesses identify geographic and/or operational areas that need adaptation solutions, contributing to long-term business continuity and more resilient value chains. Transparent, high-quality climate risk disclosures can boost investor confidence and secure financing for businesses.

Timeframe: 2017–2020 (focus on private sector engagement)

Description

Content and purpose. Indonesia is one of the most climate vulnerable countries in the world. As an archipelago nation,[1] Indonesia is prone to flooding and coastal erosion as a result of storms and sea-level rise. Additionally, inland areas of Indonesia are also vulnerable to droughts, floods, wildfires, soil erosion, and changing seasons. Poor land management and unsustainable farming practices are exacerbating risks, and these extreme weather events lead to water and food insecurity and create economic hardship for small farmers and fisherfolk who are not prepared to adapt. The private sector, and especially agribusinesses,[2] are also significantly affected by these climate risks.

In 2015, USAID launched a five-year initiative, APIK, that supported the government of Indonesia to enhance climate adaptation and disaster resilience efforts. This Activity sought to mainstream climate change adaptation and disaster risk reduction (DRR) into national and subnational governance frameworks, enhance the ability of local communities and businesses to tackle climate change and weather-related disasters, and facilitate the adoption of climate and disaster risk management information by key stakeholders to better anticipate and plan for extreme weather events.[3]

[1] According to Indonesia's National Coordinating Agency for Survey and Mapping, the total number of islands in the archipelago is 13,466.
[2] Interview with Paul Jeffery, DAI, April 2023
[3] USAID (2020a)

From 2017, the APIK Activity broadened to include active engagement of the private sector in efforts to build resilience to natural disasters for businesses and communities.

Role of partnership. The objective of engaging with the private sector was to increase understanding of actual and potential impacts of climate change and weather-related disasters on businesses and to pilot initiatives that could enhance community resilience within key supply chain geographies.[4] The main objectives of engaging the private sector in APIK was to:

- **Identify shared community and business risks in key economic subsectors.** APIK engaged and mobilized key business associations and networks to identify shared risks in critical subsectors of the economy, such as the fishing industry in the Maluku Islands, cocoa and corn production in southeast Sulawesi, and sugarcane and poultry in East Java.
- **Prepare business to adapt to climate-related impact.** Stakeholders included business associations, small and medium enterprises (SMEs), chambers of commerce, business networks, and local and multinational companies.[5] Activities focused on supporting companies to integrate adaptation and DRR into business models and forecasting.
- **Co-create and pilot climate adaptation projects with companies that have community-based supply chains.** Specific projects included low-cost weather stations for farmers, coastal barriers to protect villages prone to sea-level rise, infiltration wells, and farming innovations such as climate-smart chicken sheds.[6,7]

Gaps and Challenges

Gaps and challenges addressed by partnership. APIK's engagement with key businesses, networks, and supply chain actors helped to establish a baseline understanding of shared climate risk and to raise awareness of how to assess that risk.[8] APIK accompanied private sector partners in piloting adaptation solutions related to protecting business assets, strengthening resilience in communities, accessing specialized labor resources, ensuring supply chain continuity, and facilitating access to markets. The outcome of APIK's private sector engagement in these areas provided the Indonesian government

[4] USAID (2020a – Annex K)

[5] E.g., Syngenta, Cargill, PT Multi Bintang (Indian Beer company, part of Heineken Group). Full company list available in Table 6: APIK Private Sector Engagement Summary. USAID (2020a)

[6] For instance, PT Cargill Indonesia (one of the major suppliers of livestock feed products), supported climate adaptation among chicken farmers by raising awareness of changing weather patterns, developing training, and piloting climate-smart chicken sheds to manage extreme weather conditions and water use more efficiently. USAID (2020a – Annex K)

[7] This vignette essentially focuses on the first activity listed.

[8] At the end of the project, APIK conducted an end-line survey to measure the change in awareness on the impacts of climate change and weather-related disasters to businesses. It observed a significant increase in the number of companies (40%) which are investing in ecosystems, watersheds, and other natural resources as part of their climate mitigation and adaptation efforts.

with scientific input and regional-specific research on climate impacts for policymaking.[9] Additionally, APIK helped demonstrate to the Indonesian government that more strategic partnerships could generate greater impact. Prior to APIK, the typical government approach to working with the private sector was small corporate social responsibility projects. APIK's engagement with the private sector was also in partnership with the government and thus helped the government to work with businesses more effectively.

Gaps between the partnership blueprint and the vignette. APIK's engagement with the private sector was not focused on disclosing climate risk data to investors or financiers (as included under Partnership Blueprint 1). Yet even when disclosure isn't mandated, adopting the Task Force on Climate-related Financial Disclosures (TCFD) framework can be useful in guiding risk assessment. The TCFD framework has been adopted by more than 4,000 companies[10] and is considered the leading framework for strengthening businesses' capacity to assess, disclose, and manage climate risk.

Critical Steps to Advance Climate Adaptation under the Blueprint

- **Identify businesses to engage.** APIK conducted a business perception survey to evaluate the private sector's awareness of climate risks and climate adaptation and gauge their interest in the project. The survey findings were leveraged to design APIK interventions with the private sector. Potential businesses were identified through the survey and online research and contacted directly. Businesses received information about adaptation efforts and APIK's work in the area.[11]

- **Strengthen capacity and awareness of businesses regarding climate risk, including economic, environmental, and social impacts.** APIK leveraged resources and expertise from local partners, investors, information aggregators, and thought leaders to support Indonesian companies in their journeys toward climate adaptation. APIK also offered in-kind technical assistance to business partners.[12] Activities included:
    - Workshop sessions to build general awareness on climate and disaster risk, held in collaboration with large businesses, SMEs, and the government of Indonesia.
    - A series of detailed climate vulnerability assessments, projections, and project briefs were shared with businesses.[13, 14] The APIK team also provided in-kind business advisory services to SMEs.
    - Events to officially hand over products, such as guidelines, tools, and reports, to local stakeholders and share lessons learned and success stories. These events were used to publicize and share information on successful partnerships to encourage more businesses to engage in adaptation and resilience-related activities.

[9] USAID (2020a)
[10] TFCD (n.d.)
[11] Interview with Paul Jeffery, DAI, April 2023
[12] *Ibid*
[13] *Ibid*
[14] This work has been provided by APIK and occasionally by external consultants.

- Tailored climate information tools and services for those on the frontlines of climate adaptation and disaster response developed through the application of open-source, user-centric monitoring technologies.[15]
- While not relevant in this case, in future partnerships USAID and its implementing partners could train the private sector on the TCFD framework for assessing risks and disclosing high-quality, consistent data, which investors and banks are increasingly seeking from companies.

Key Insights into the Process and Relationship Aspects of the Partnership:

This section offers recommendations based on the roles and processes learning involved in this partnership:

- **Effective knowledge management is critical.** APIK's knowledge management team had an active role in communicating with the private sector throughout the engagement process. The team captured and disseminated lessons learned from the adaptation pilots and summarized key benefits from the partnership. These communications helped to catalyze replication[16] as many businesses sought evidence on the benefits and return on investment (ROI) [17]before scaling or testing the adaptation solutions. For example, PT Multi Bintang (part of the Heineken Group) learned about APIK's private sector engagement efforts by attending the East Java CSR Forum. Following the Forum, APIK developed a partnership with the company focused on upstream water resource management and eco-tourism. Demonstrating ROI was essential (even if beyond APIK's period of performance). The partnerships with Cargill and chicken farmers in East Java were good examples of partnerships which generated significant and rapid improvements in the quantity and quality of egg production, creating a clear business interest to keep engaging.
- **There is a significant need to bridge the data gap.**[18] Most companies remain constrained in accessing and utilizing data on climate risk for their sector. There remains a gap in the translation and application of scientific data. Businesses don't necessarily know how to utilize a scientific climate report or vulnerability assessment, but need to understand how climate change will impact supply chains, assets, workforce, and markets and how to adapt. Once scientific data is translated into a usable form for the private sector, companies need to be trained on how to effectively integrate the data into their risk assessment and management systems.
- **Find a way to align incentives that facilitate multi-stakeholder engagement.** Engaging multiple companies within a collective partnership effort was challenging for APIK. Each company wanted to leverage its partnership with APIK and USAID for its own benefit. Many companies were also concerned that multi-stakeholder partnerships would result in some companies being free riders

[15] For instance, water pressure telemetry hardware developed by the DAI Maker Lab for use in water utilities and sanitation efforts and weather monitoring stations was established for farming and fishing villages.
[16] The APIK Activity was covered 392 times by local media and had 8 stories featured in international media, such as climatelinks.org and weadapt.org. Its social media channels were active—91,000 website views, 361 Twitter followers and over 424,000 accounts reached. The team continues to liaise with Indonesia's Ministry of Environment and Forestry to encourage them to host APIK products on its website and in the USAID Development Experience Clearinghouse.
[17] Though we don't have access to ROI calculations, there was a clear increase in revenue from many of the investments. For example, two months following the launch of a partnership with Cargill, egg production new, climate-smart chicken sheds increased by 7.7% (≈ 52 kg/1,000 chickens to 56 kg/1,000 chickens). Of the 2,000 chickens in the new sheds, 90% of them were already producing eggs.
[18] USAID (2020a)

(i.e., reaping the benefits of the partnership without making the requisite investment).[19] Finding that hook to draw multiple company partners—that share risks and incentives into joint initiatives—is likely to result in greater impact at scale and bolster the resiliency of entire subsectors.[20]

[19] Interview with Paul Jeffery, DAI, April 2023
[20] *Ibid*

Partnership Blueprint 2:
Strengthening Business Capacity to Establish Climate Risk Management Systems


Photo Credit: Feed the Future

GIZ Global Programme Risk Assessment and Management for Adaptation to Climate Change (Loss and Damage)

This example highlights how a development agency can support the private sector and particularly micro, small- and medium-enterprises (MSMEs) to develop and implement climate risk assessments and management systems. These systems help businesses to proactively assess, monitor, and manage their climate risks with the goal of building greater resilience.

Timeframe: 2013–2023

Description

Content and purpose. The escalation of weather and climate-related loss and damage has been significant in recent decades, and projections from climate models indicate that the frequency and intensity of extreme weather events will increase as the climate continues to change. As climate risks evolve, they will affect decision-making processes across businesses, necessitating continuous analysis and proactive measures to address them. However, many (MSMEs) and even some larger local firms lack the necessary expertise and capacity to comprehensively understand and address their climate-related risks.

To close this gap, the German Federal Ministry for Economic Cooperation and Development (BMZ) commissioned GIZ's Global Programme Risk Assessment and Management for Adaptation to Climate Change (Loss and Damage) (GP L&D) to develop a climate risk assessment and management (CRM) framework to avert, minimize, and address loss and damage.[1] This risk-based iterative framework to manage risk and the potential impacts related to natural and climate-induced hazards[2] aims to support the public and private sectors[3] in addressing climate-related loss and damage in a comprehensive manner. The tool—a six-step methodology to assess climate risk, combined with risk management measures[4]—has been designed to be easily accessible and tailored to different geographies and across

[1] GIZ (2021d)
[2] GIZ (2021a)
[3] In this vignette, the focus in on the development of the program for the private sector only whereas the scope of work of GP L&D was broader.
[4] GIZ (2021b)

different sectors.[5] GIZ promoted the framework among businesses located in many of the countries most affected by climate change.

Role of partnership. GIZ sought to make the CRM framework dynamic and iterative, so it consulted with a broad range of stakeholders to inform the design. By capturing a diversity of experiences and perspectives, GIZ was able to maintain a holistic and effective approach to risk management.[6] Throughout the design and implementation of the CRM framework, GIZ engaged with the following set of stakeholders:

- Decision-makers, including executive and technical personnel from local, regional, or national governments in BMZ partner countries, who participated in training sessions on the framework. For the public sector, the framework helps better integrate CRM into public policies at the national and sectoral level.[7]
- Technical experts—including disaster risk reduction and development planners and climate adaptation experts—who supported the trans-disciplinary research behind the CRM's design.
- Representatives of the private sector and especially MSMEs, who were trained to use the CRM framework to strengthen their business resilience.
- Civil society organizations, which were provided with qualitative information on how they are potentially affected by climate change.
- International organizations, donor agencies, and academia that participated by sharing their knowledge around risk assessment and management.[8]

Gaps and Challenges

Gaps and challenges addressed by partnership. Through the GP L&D program, GIZ decided to develop the CRM framework to help businesses include climate considerations in their decision-making and ultimately adapt their assets, markets, and products to be more resilient. By designing and disseminating the CRM framework, GIZ equipped the target audience with a robust tool to improve decision-making, implementation, and learning.

Critical Steps to Advance Climate Adaptation under the Blueprint

Below are the key activities and steps GP L&D followed in this case:

- **Develop a climate risk assessment framework.** GIZ effectively leveraged and combined a broad range of vetted processes, strategies, and instruments related to climate change mitigation and adaptation, disaster risk reduction, risk finance and insurance, and sustainable development

[5] Interview with Marlena Kiefl, GIZ, June 2023
[6] *Ibid*
[7] GIZ (2021d)
[8] GIZ (2022)

pathways for the CRM framework.[9] GIZ convened experts[10] from the International Institute for Applied Systems Analysis (IAASA)[11] and Climate Analytics,[12] an NGO specializing in climate modeling, to stress test and strengthen the framework.

- **Select the target geographies and industries.** GIZ decided to focus its efforts on the geographies most affected by climate change, such as countries with extensive, at-risk coastlines (e.g., small island developing states). Once countries were selected, GIZ analyzed the industries that were most important to their respective economies and most at risk. The selection process was supported by local teams that were able to communicate the climate risks faced by communities and businesses.[13] The selection methodology was tested in two countries, Tanzania (at the local and national level) and India (at the state level), before being extended to other areas.[14] The targeted private sector categories were mainly local MSMEs and agribusinesses.[15]
- **Customize the CRM framework.** Given that climate risks are unique to each context, it is imperative to tailor risk assessments to the specific local, regional, national, and institutional characteristics. This customization is essential to accurately identify climate risks and evaluate their potential impact.[16] Then, based on a participatory and iterative approach—including dialogue among different stakeholders such as governments, communities, and the private sector[17]— sector-specific risk assessment modules were developed and integrated to reflect the specific climate risks faced by different industries and geographies.[18]
- **Provide technical assistance and build private sector capacity.** GIZ provided technical assistance and training to a variety of stakeholder groups in partner countries, including the private sector, to 1) build their capacity, knowledge, and practical skills; 2) contribute to a more informed dialogue among stakeholders; and 3) support the implementation of the CRM framework.[19] To guarantee an effective knowledge transfer, the GP L&D conducted two training of trainers and established a pool of certified international trainers to work alongside local counterparts. Additionally, for each training, GIZ ensured that the training courses adequately addressed the local climate risks and context[20] and that feedback loops were in place.[21] By 2021, the training program had successfully reached over 500 participants across different countries and regions in Central America, the Caribbean, Africa, and Asia.[22]

[9] GIZ (2021c)
[10] Interview with Marlena Kiefl, GIZ, June 2023
[11] IAASA is an international research institute that advances systems analysis and applies its research methods to identify policy solutions to reduce human footprints, enhance the resilience of natural and socioeconomic systems, and help achieve the Sustainable Development Goals (https://iiasa.ac.at/).
[12] Climate Analytics is a global climate science and policy institute established in 2008 to bring cutting edge analysis to bear on climate change. About us / Climate Analytics
[13] Interview with Marlena Kiefl, GIZ, June 2023
[14] GIZ (2021b)
[15] Interview with Marlena Kiefl, GIZ, June 2023
[16] Mechler R et al (2021)
[17] *Ibid*
[18] Interview with Marlena Kiefl, GIZ, June 2023
[19] GIZ (2021d)
[20] *Ibid*
[21] Interview with Marlena Kiefl, GIZ, June 2023
[22] GIZ (2021d)

Key Insights into the Process and Relationship Aspects of the Partnership

This section offers recommendations based on the roles and processes learning involved in this partnership:

- **Encourage a whole-of-society approach to ensure meaningful adoption of the CRM framework.** It is important to engage with and strengthen the participation of multiple stakeholders, including the public and private sectors, communities, climate-affected populations, and decision-makers to increase buy-in and facilitate implementation.[23] This circular approach to risk management, fostering dialogue between communities of practice through capacity development offerings and involving relevant institutions, was critical to the adoption of the CRM framework.

- **Qualitative data can be a good alternative when quantitative data is unavailable.** When tailoring the CRM framework to specific geographies or sectors, GIZ and its implementing partners faced challenges in securing climate risk data. For instance, it was difficult to collect quantitative data on sea level rise in the Caribbean due to the lack of existing institutions and mechanisms to capture that data.[24]To overcome this challenge, GIZ conducted interviews to collect qualitative data and anecdotes from potentially or already affected communities to inform the CRM framework. This alternative approach also provided valuable insights on how local stakeholders perceived the impacts of climate change and gave GIZ an opportunity to raise awareness about climate risk and adaptation.[25]

[23] GIZ (2021c)
[24] Day, O. et. al. (2021)
[25] Interview with Marlena Kiefl, GIZ, June 2023

Partnership Blueprint 3:
Promoting Adaptation Solutions within Buyer-Supplier Coalitions


Photo Credit: KOA

African Cocoa Initiative (ACI), an effective model supporting sustainable growth and improved food security on diversified cocoa farms in West Africa

This vignette illustrates how development practitioners can use the guidance under Partnership Blueprint 3 to mobilize existing buyer-supplier coalitions in specific sectors that face significant climate risk but currently lack climate adaptation as part of their core agendas.

We approach this vignette from a forward-looking perspective, as though we are evaluating whether the World Cocoa Foundation (WCF)/ACI could be an appropriate platform to support coordinated action around adaptation.

Timeframe: 2011–2016

Description

Content and purpose. Cocoa is an important cash crop in West Africa but faces several environmental and resource constraints in addition to challenges of meeting rising global demand. Those constraints include environmental degradation, pest infestation, and poor soil quality.[1] Studies find that warming temperatures and precipitation fluctuations are affecting cocoa quality, productivity, and output.[2] A lack of access to proper farming equipment and credit makes farm maintenance and innovation difficult, preventing farmers from adapting to the changing conditions on their own.[3]

In 2011, the WCF, USAID, and the Sustainable Trade Initiative (IDH) launched a trilateral partnership through USAID's Global Development Alliance (GDA), called ACI, to institutionalize public and private sector models that support the sustainable growth of cocoa production in Cameroon, Cote D'Ivoire, Ghana, and Nigeria.[4] The initiative was created as a result of WCF's members—which include cocoa and chocolate manufacturers, processors, supply managers, and global brands, such as Mars and Cargill—seeking industry-wide engagement to improve dialogue that promotes the sustainability of the cocoa sector and builds a platform for local government engagement.[5] WCF looked to USAID and IDH for investment and experience in advancing sustainable production in the cocoa industry.

[1] World Bank (2017)
[2] Vrije Universiteit Amsterdam and Bern University of Applied Science BFH (n.d.)
[3] USAID (2017b)
[4] Ibid, p. 43
[5] Ibid, p. 45

Role of partnership. ACI, a GDA partnership, had on-the-ground operations in Cameroon, Cote D'Ivoire, Ghana, and Nigeria and initially focused on four main areas of work:[6]

- Establishing and strengthening national public-private partnership platforms;
- Addressing farm productivity constraints through improved planting material;
- Enhancing public- and private-sector extension and farmer training services; and
- Fostering market-driven farming input supply services.

Through its activities, ACI sought to double cocoa productivity and incomes for 100,000 farmer households. In many ways, ACI was an effective industry-wide initiative, bringing together and building alignment among manufacturers, processors, and brands to collaboratively support the farming communities from which they source. ACI also successfully fostered public-private dialogue between the global cocoa industry and host-country governments.[7]

Gaps and Challenges

Gaps and challenges addressed by partnership. Communications among cocoa buyers, farmers, processors, and government agencies in West Africa was disjointed, resulting in ineffective problem management throughout the industry. Among buyers and suppliers, there was a lack of transparent dialogue and trust, and there was also a concern that local governments were not communicating or managing farmer-support systems properly, such as distributing planting material fairly.

Private sector actors were interested in improving industry dialogue and establishing a platform for effective government engagement on challenges related to the cocoa industry and farming practices that could improve production and support climate-smart approaches.[8] Improved communication with national governments enabled the implementation of government agriculture extension and trade resources. This partnership demonstrates how a development agency can leverage its public sector relationships to generate improvements in industry-wide productivity.

Gaps between the blueprint and the vignette. Partnership Blueprint 3 focuses on mobilizing existing buyer-supplier coalitions in specific sectors that face significant risk from climate threats but lack adaptation as part of their core agendas. ACI did integrate climate-smart agriculture into its activities, and in doing so, considered how to manage climate risk alongside other considerations. However, climate adaptation was not a central focus of this coalition.

Approach this vignette from a forward-looking perspective, evaluating whether WCF/ACI could be an appropriate platform to support coordinated action around climate adaptation. Once a platform or coalition is evaluated and selected, USAID can consider next steps under this blueprint, which are to

[6] USAID (2017b) pp. 45-46
[7] Twenty-four public-private partnerships were formed as a result, surpassing the goal of 20. USAID concluded that future public-private partnership platforms should build upon the successes of ACI. USAID (2017b)
[8] USAID (2017b)

identify the most pressing collective risks and to integrate implementation of the right adaptation solutions across coalition member activities.

Critical Steps to Advance Climate Adaptation under the Blueprint

- **Select the most effective buyer-supplier coalition.** Often, there can be multiple coalitions or platforms within the same industry or subsector. USAID will want to select a coalition that adequately represents the experience and interest of each group of stakeholders within its membership and that provides an effective channel to align interests across these groups.

  Applying this consideration to the ACI case, reflect on whether WCF was able to identify areas of alignment among participants (in this case smallholder farmers) and private-sector partners to determine whether the coalition was effectively taking steps to enhance benefits across its ongoing activities.[9]

  Under ACI, in Cote D'Ivoire, farmers and farmer organizations had limited engagement with the Conseil Café Cacao (the government's Council for Regulation, Stabilization, and Development of the Coffee and Cocoa sectors) Public-Private Partnership Platform. Instead, farmers' interests were represented by the cocoa companies and the Ivorian government.[10] Because farmers' voices were not being represented directly, there was a risk that their needs and priorities could be subsumed by the interests of the companies and the government. [11] In evaluating whether ACI could be a good platform for USAID to work through to advance climate adaptation in the cocoa sector, consider how to shift the coalition's governance and decision-making structures to ensure that farmers' input is aggregated and reflected from multiple farmer organizations.[12]

- **Evaluate the governance mechanism.** In evaluating a coalition, USAID will want to consider whether its governance structure facilitates discussion, exchange of opinions, and joint decision-making. ACI's steering committee met bi-annually and served as the main forum for decision-making, issue alignment, and a collective voice for the industry.[13] Multiple partners noted that steering committee meetings tended to be "report oriented" without clear decision points and outcomes, partly due to the number of participants—at times up to 80 people.[14]

  To facilitate effective senior-level decision-making, USAID might want to consider re-engineering the ACI steering committee to allocate enough time for discussion and action by those with authority to make decisions.[15] Effective avenues for discussion and deliberation are more likely through a combination of the formal steering committee and other mechanisms, such as individual and informal calls.[16] Without this frequency and flexibility for partner inputs to be shared beyond formal steering committees, partnerships risk not getting a complete and nuanced view of partner priorities and concerns.[17] Some less-vocal partners may also get sidelined, particularly where steering committees are noted for their "unwieldy" composition[18].

[9] USAID (2017b) pp. 43-44
[10] *Ibid* pp. 43-44
[11] *Ibid* pp. 43-44
[12] *Ibid* pp. 43-44
[13] *Ibid* pp. 45-46
[14] *Ibid* pp. 45-46
[15] *Ibid* pp. 45-46
[16] *Ibid* pp. 45-46
[17] *Ibid* pp. 45-46
[18] *Ibid* pp. 45-46

- **Identify the collective critical climate risks to address.** Once an appropriate coalition has been identified, USAID should support that coalition in identifying collective priorities to address the shared climate risk. Through the ACI platform, USAID could support the cocoa industry in the main West African-producing countries to define an action plan to address climate threats in a way that can unite and activate all stakeholder groups—in this case, the cocoa companies, farmer groups, and national governments.
- **Identify adaptation solutions and build momentum around coordinated action.** Potential next steps would be to conduct a climate risk assessment to sensitize coalition members to the key findings from that assessment, develop adaptation guidance for the cocoa sector, and provide capacity support to members to implement the most viable adaptation solutions (e.g., the use of different practices, the adoption of green or gray infrastructure, or the dissemination of adaptation products and services) throughout the supply chain. Throughout the implementation of these solutions, USAID would want to take steps to maintain energy and momentum around coordinated action by all supply chain actors and stakeholder groups.
- **Promote transparency as a key trust-building element.** Over time, trust improves communication channels and strengthens the platform for engagement between buyers and suppliers within an industry and between the industry and governments. For example, the public-private partnership platform built with the Ivorian government under ACI resulted in higher levels of trust over time.[19] The platform also helped incentivize ACI members to co-create solutions to address issues of common concern. USAID brought credibility to the program, making public-sector actors more willing to understand the needs of the private sector. In advancing climate adaptation through the platform, USAID could take steps to leverage the goodwill already created by the coalition and to deepen the level of trust among stakeholders.

[19] USAID (2017b), p. 47

Partnership Blueprint 4:
Piloting Nature-based Solutions (NbS) to Strengthen Enterprise Resilience


Photo Credit: INOCAS

Piloting a Nature-Based Solution (NbS) to Increase Climate Resilience of Brazilian Farmers and Commercialize the Macaúba-based Silvopastoral System

This example showcases how companies can partner with development agencies to leverage NbS to build climate resilience and commercialize new products. In this case, Brazilian-German company INOCAS[1] integrated macaúba palm trees within a silvopastoral system[2] to reduce farmers' climate risk and build the first value chain for vegetable oil production without land use change in Brazil.[3]

Timeframe: 2018–Ongoing

Description

Content and purpose. Smallholder farmers in the Brazilian state of Minas Gerais are increasingly exposed to the impacts of climate change, such as increasing heatwaves, more frequent droughts, and worsening soil fertility. The farmers also depend largely on monoculture cattle farming in conjunction with small-scale farming (i.e., coffee, corn, sunflowers, soybeans). The lack of agricultural diversification and other non-agricultural economic opportunities encourages deforestation to expand pasture[4] and field sizes, making these farmers even more vulnerable to pests, soil degradation, and income volatility. Simultaneously, local harvest workers face seasonal unemployment due to a lack of jobs during the off season of crop production, reducing incomes and forcing migration.

INOCAS developed the Macaúba Project, drawing on research on renewable resources and analysis of macaúba oil produced in silvopastoral systems by the University of Leuphana.[5] Macaúba, a palm tree native to Brazil, naturally supports both climate mitigation and adaptation. It sequesters carbon, enhances soil and water quality, reduces wind speed and temperature fluctuations, is more drought resistant than West African oil palm, and creates shade to protect other species from heat. The

[1] INOCAS, or Innovative Oil and Carbon Solutions, is a private company that was a spin-off from a European Union-funded research project on biofuels for the airline industry.
[2] Combining tree production with livestock.
[3] Any way in which humans modify the natural landscape. https://www.carbonbrief.org/land-use-change-has-affected-almost-a-third-of-worlds-terrain-since-1960/
[4] Cattle farming also negatively impacts the environment as land degradation and deforestation reduce carbon capture by forests and soil, increases runoff, and adds to erosion.
[5] Leuphana University of Luneburg (2016)

Macaúba Project aims to develop 2,000 hectares of macaúba trees in silvopastoral systems in partnership with Brazilian smallholder farmers, serving to boost their climate resilience and diversify their livelihoods.

The project seeks to create macaúba oil, a marketable product. The development of the macaúba industry provides new sustainable palm oil for the food and beverage and cosmetics industries and for sustainable aviation fuel. Macaúba production provides additional revenue streams for smallholder farmers when seasonal unemployment traditionally rises and generates new feedstock availability (e.g., fodder from the macaúba tree) for farmers. Macaúba cultivation also helps to increase productivity of existing pastures, reduce land degradation, and reinforce native ecosystems in the face of climate impacts.

INOCAS' goal is to establish a profitable flagship project showcasing the scalable potential of a NbS that, by definition, offers multiple benefits. In this case, silvopastoral macaúba reduces climate risks of smallholder farmers, sequesters carbon dioxide, reduces pressure on existing forests and other important ecosystem hotspots, and improves livelihoods.

In 2017, the Inter-American Development Bank (IDB) launched a global call for proposals to access competitive funding for projects that engage the private sector in the Climate Investment Fund's Forest Investment Program (FIP).[6] INOCAS proposed the Macaúba Project, and it was one of five projects selected, which ultimately helped to open doors for INOCAS to secure start-up funding.

Role of partnership. The partners within the Macaúba Project include INOCAS, which led the development and implementation of the partnership; the IDB Lab, which provided financing and took a management role in INOCAS; Fundo Vale,[7] a business promotion and investment fund, which provided equity investment and support to INOCAS for promoting macaúba palm oil as a viable commercial product; and Viveiro Nativo,[8] a Brazilian seedling production company, which invested equity in INOCAS, joined its board, and provided technical expertise.[9]

The partnership focuses on the following four activities:

- Supporting farmers in macaúba palm tree production and in doing so, helping them to generate a new source of income;
- Developing a germination laboratory for the production of seeds;
- Planting 2,000 hectares of a silvopastoral system on degraded pasture areas with smallholder farmers; and
- Creating an oil mill for the processing of macaúba, ensuring a market for the smallholder farmers.

[6] The Forest Investment Program (FIP) is a targeted program of the Strategic Climate Fund (SCF) within the Climate Investment Funds (CIF) https://climatefundsupdate.org/the-funds/forest-investment-program/
[7] Fundo Vale|
[8] https://viveironativo.com.br/
[9] Interview with Johannes Zimpel, INOCAS, June 2023

Gaps and Challenges

Gaps and challenges addressed by partnership. The Macaúba Project sought to develop a new marketable product from renewable resources that does not require land use change, as compared to other palm oil products. The project also sought to ensure the product and farmers cultivating the palm oil can respond and adapt to a changing climate. Further, the project enabled farmers to diversify income when faced with a changing climate and seasonal unemployment.

While INOCAS was created to implement the concept of silvopastoral systems researched by the University of Leuphana, the concept had not been tested under real-life conditions. Therefore, INOCAS needed financial support to pilot the NbS, especially since macaúba trees require eight years of growth before reaching peak productivity. As a start-up, INOCAS also required management and governance support, which IDB provided.[10]

Gaps between the blueprint partnership and the vignette. In this example, the IDB Lab intervened once the sector, region, specific markets, and solutions were already developed and available. As such, the steps focused on problem identification listed within the partnership blueprint are not covered in this vignette.

Critical Steps to Advance Climate Adaptation under the Blueprint

Below are the key activities and steps the Macaúba Project followed to advance adaptation:

- **Engage critical local stakeholders.** Before funding INOCAS, the IDB Lab ensured that the project included robust and strategic partners at the local level. INOCAS identified the participating farmers and developed structured agreements and contracts between farmers and harvesters, including wage and price structures. IDB Lab identified "champions" who were able to promote the solutions to their peers.
- **Provide scientific research and technical assistance on NbS.** Technical advisors and academic researchers were involved in the project to analyze the local ecosystem and to identify the appropriate NbS to address climate risks and provide other benefits. These researchers also provided technical support to implement the NbS on the ground.
- **Provide technical assistance to farmers and agricultural workers.** By establishing a Macaúba Training Center, farmers and harvesters were organized into groups and trained in the planning, cultivation, harvesting, and overall management of macaúba silvopastoral systems.
- **Facilitate access to markets.** INOCAS is seeking to commercialize its macaúba harvest to provide sustainable palm oil to the cosmetics industry, the most lucrative market for macaúba palm oil. The company has recently partnered with Natura & Co—a global cosmetics company headquartered in Brazil—to develop its knowledge and expertise in commercializing cosmetic-grade macaúba palm oil. This partnership has the potential to transform into a sales relationship between INOCAS and Natura & Co. Actors like USAID can support companies like INOCAS to conduct further market analyses and build relationships with commercial buyers.

[10] Interview with Johannes Zimpel, INOCAS, June 2023

- **Engage local policymakers to promote an enabling environment favorable to NbS implementation.** INOCAS engaged in regular dialogue with the state of Minas Gerais, which ultimately adopted a law to support macaúba plantations.[11]

Key Insights into the Process and Relationship Aspects of the Partnership

USAID could play a similar role to IDB in this kind of partnership. This section offers process and relationship insights from the Macaúba Project:

- **Leverage local partner relationships to facilitate engagement.** The Macaúba Project had to overcome a lack of interest from local farmers because the macaúba tree, though native to the region, was not considered a productive plant. This initial perception resulted in low farmer participation rates that jeopardized overall project success. To resolve this issue, INOCAS conducted extensive outreach to farmers to find champions who had successfully grown macaúba trees and could inspire others. Through identifying and using early adopters, the project team built a critical mass of farmers interested in being integrated into INOCAS' supply chain. INOCAS developed various offerings to integrate smallholder suppliers, including smallholder finance and land leases.

- **Offer flexible financial instruments and innovative solutions.** The partnership leveraged grants and concessional loans from USAID's Financial Innovation Program (FIP) to de-risk investments and bridge the "first mover" or "pioneer" gap. In this case, the loan could not advance because the IDB Lab was unable to find an on-the-ground partner to channel the loan to end beneficiaries. Upon further evaluation, the IDB Lab decided to take a $3 million equity stake in INOCAS.

- This partnership also provided an opportunity to scale and replicate the approach in other locations. INOCAS conducted a survey to identify the best regions in Brazil and strategies for expanding the project to 30,000 hectares of macaúba trees by 2030.

- **Bring the experience and expertise needed to start-ups.** With two seats on the board of INOCAS, the IDB provided strong support to INOCAS' governance structure. This partnership also provided visibility for INOCAS to attract new investors. Mirova,[12] now one of the project investors, was first introduced to the project by IDB as a corporate governance consultant to INOCAS. IDB's support has been critical to INOCAS' organizational development and growth.

[11] LEI N° 19.485, 2011: […] *encourage the cultivation, extraction, marketing, and consumption of Macauba products and […] promote the development of Macauba projects, preferably by cooperatives, involving all actors in the supply chain*".
[12] INOCAS (2021)

Partnership Blueprint 5:
Scaling up Parametric Insurance to Incentivize Adaptation Solutions

Photo Credit: Mexican Reef Protection Program

Mexican Reef Protection Program—World's First Nature-based Solution (NbS) Incorporating Parametric Insurance

This vignette highlights a partnership that established a parametric insurance policy to restore nature and protect a vulnerable region and its tourism industry from extreme weather events. It also illustrates how adapting to climate change and safeguarding assets can be beneficial to local communities, businesses, and the government. Finally, this example demonstrates how the insurance industry can pilot solutions to insure climate risk.

Timeframe: 2018–Ongoing

Description

Content and purpose. The coral reef of Quintana Roo in Mexico attracts tourists[1] while also helping to reduce storm damage and coastal erosion.[2] Due to climate change, more frequent and intense hurricanes along the Caribbean coast[3] have damaged the natural ecosystem and disrupted the tourism industry, forcing closures of hotels, cutting income, and halting employment.

In 2016, The Nature Conservancy (TNC) performed a risk analysis highlighting that storm damage to buildings along the coastline could triple with the loss of the coral reef[4] and identified the opportunity to insure the reef based on its economic value. TNC invited reinsurance company Swiss Re to develop an insurance mechanism, bringing its expertise in disaster risk financing and parametric insurance. Swiss Re's core mission is "to make the world more resilient," and therefore, the opportunity to participate in the Quintana Roo partnership was a perfect match for the insurance company's expertise in building an effective marketplace to help protect and strengthen the natural environment and biodiversity.[5]

In 2018, the Quintana Roo government and coastal property owners developed the Coastal Zone

[1] Tourism along the Mexican Caribbean coast is worth US$9 billion, with over 300 hotels offering more than 100,000 rooms. Kellet J, & Way M. (2018)
[2] Reef can decrease up to 97% of a wave's energy before it hits the shore Ferrario, F., et. al. (2014)
[3] Severe weather events increase in both severity and frequency. The number of weather-related disasters increased five times between 1970 and 2020. Green Finance Institute (n.d.)
[4] Green Finance Institute (n.d.)
[5] Swiss Re (2020)

Management Trust (CZMT), a multi-stakeholder partnership and trust fund initiated by TNC, to conserve and restore the reef.[6] In October 2020, Hurricane Delta hit the coast of Quintana Roo and triggered the policy.

Role of partnership. The Trust, including the Quintana Roo government, TNC, the National Commission of Protected Natural Areas (CONANP), and Cancun and Puerto Morelos Hotels' Association fulfills several functions:

- Manages an activity budget financed by different funding sources, including from the government, philanthropic grants, and federal taxes revenue;[7]
- Promotes coastal conservation[8] by contracting services for reef resilience and maintenance, ensuring that the reef is better able to withstand hurricanes;
- Finances the parametric insurance policy developed and provided by Swiss Re,[9] which pays out when winds reach a minimum of 100 knots (115 mph) within the insured area (payments vary according to wind strength); and
- Contracts a reef restoration team, including divers, fisherfolk, and scientists, to intervene when the insurance policy is triggered.

Swiss Re was a key partner through its role in offering parametric insurance. Overall, this partnership benefits public, private, and community stakeholders as it helps to decrease beach erosion and increase coastal resilience for local communities, diminishing costs from infrastructure loss for the tourism industry and government.[10]

Gaps and Challenges

Gaps and challenges addressed by partnership. Since the Quintana Roo reef provided economic benefit to both public and private stakeholders, it was essential that the private sector purchased the insurance product alongside the Quintana Roo government. This joint purchase ensured that the tourism businesses had "skin in the game" to develop a community-based approach to protecting and preserving the reef asset.

TNC's establishment and management of the Trust was critical in facilitating transparent financial flows from each partner.[11] Though Swiss Re was an expert in structuring innovative parametric insurance products, TNC's role as convener was critical in enabling Swiss Re to negotiate the terms of the product with public and private joint purchasers, which it would not have been able to do on its own since so many stakeholders were involved. TNC also played a critical role in offering technical expertise to drive forward coral reef protection and preservation as a key adaptation solution to reduce potential damage from extreme weather events.

[6] The Nature Conservancy (2022)
[7] Gonzalez, G. (2018)
[8] The Nature Conservancy (2018)
[9] Swiss Re (2021)
[10] The Nature Conservancy (n.d. (b))
[11] Interview with Jackie Higgins, Swiss Re, April 2023

Though the sale of parametric insurance to the Trust was not in itself a significant profit-making opportunity for Swiss Re, the insurance company found this opportunity to build the evidence base for parametric insurance and help create a market for the larger insurance industry[12] to be particularly valuable. Swiss Re viewed its participation in the alliance as a necessary step in making the case for using insurance as an efficient financial instrument and risk management tool that can enhance resilience and improve sustainable management of ecosystems and the economies and communities that depend on them.[13] Additionally, Swiss Re[14] recognized the reputational benefits of partnering with a well-known international environmental organization such as TNC.

Gaps between the blueprint and the vignette. Although discounted insurance premiums for the integration of nature-based solutions (NbS) (as included under Partnership Blueprint 4) were not offered under this partnership, development practitioners can consider the addition of such a design feature when replicating this partnership model. For example, insurance companies and brokers can incentivize regional and local companies to purchase insurance by offering lower premiums to those investing in adaptation solutions to protect their assets. This could help incentivize businesses to use NbS to safeguard their assets and further enhance their resilience, helping them reduce disastrous effects from extreme weather events. Insurance companies can benefit by reducing the likelihood of insurance claims. Yet, insurance companies and brokers have yet to align on offering lower premiums to incentivize NbS. USAID and other development organizations could help to subsidize the insurance premiums to establish a demonstration effect, and then convene insurance companies and brokers to determine how to feasibly offer premium discounts going forward to incentivize adaptation measures.[15]

Critical Steps to Advance Climate Adaptation under the Blueprint

- **Analyze the climate risks and identify the adaptation solution.** As a result of increasing extreme weather events affecting Quintana Roo,[16] TNC conducted a risk analysis, finding that storm damage to infrastructure could triple with the loss of reef[17] and determining that an innovative insurance mechanism could be a viable solution with multiple beneficiaries.

- **Serve as a trusted independent partner and engage critical stakeholders.** Between 2016–2018, TNC built support for reef conservation and financial instruments by partnering with the state government, the tourism industry, and financial, reinsurance, and insurance experts.[18] TNC worked with CONANP to scope innovative methods and financial instruments to restore and protect the reef from climate risks.[19] Swiss Re developed the parametric insurance mechanism to provide

[12] Interview with Jackie Higgins, Swiss Re, April 2023
[13] Swiss Re (2020)
[14] Swiss Re is no longer the insurer today, Munich Re is.
[15] Interview with Jackie Higgins, Swiss Re, April 2023
[16] The notion of insuring coral reefs—not just for their own sake but for the sake of protecting coastal communities—was analyzed after two hurricanes struck Mexico's Caribbean coast in 2005, causing US$8 billion in damage. The Nature Conservancy (2022).
[17] The Nature Conservancy (n.d. (a))
[18] The Nature Conservancy (n.d. (b))
[19] *Ibid*

financial protection to vulnerable coastal ecosystems and communities. TNC engaged local businesses through the Cancun and Puerto Morelos Hotels' Association.

- **Provide scientific and technical assistance on adaptation solutions.** TNC specializes in preserving and restoring coral reefs and other vital ecosystems and has demonstrated the value of nature as a cost-effective way to protect people and property from flood and storm damage.[20] TNC scientists and CONANP created protocols, recruited reef brigade members, and delivered intensive classroom and underwater training sessions to identify conservation solutions.

- **Provide technical assistance on risk management and innovative financial mechanisms.** Swiss Re provided its expertise in risk management, financial innovation, and parametric insurance. The re-insurance company designed and developed the parametric insurance mechanism that underpins the CZMT. The insurance mechanism triggers an immediate post-disaster response, deploying people and resources to repair the damage. To strengthen efforts and investments from businesses in adaptation—such as tree planting or protecting mangroves on their property—a financial incentive could supplement the insurance policy. While it was not used in this example, a discount on an insurance premium, could incentivize businesses to further build resilience to protect their assets, which would also benefit insurance companies by reducing claims.

  In thinking about how to apply this partnership blueprint to future contexts, **a few areas where USAID and its implementing partners can add value are by:**

  ✓ Helping to form an independent governance body to provide unbiased leadership,

  ✓ Leveraging its network and convening power

  ✓ Disseminating outcomes of the partnership to replicate and scale in other markets

  ✓ Working with the insurance regulators to support institution building and ensuring that current and upcoming regulations will not prevent the development of parametric insurance;[21]

  ✓ Convening and educating on the value of financial products;[22]

  ✓ Supporting the development of reliable data that can be used and trusted to trigger parametric insurance mechanisms.[23]

- **Develop a governance structure.** The CZMT is governed by a technical committee providing independent oversight and expertise to ensure that the Trust is achieving its objectives. It also includes a scientific committee that oversees spending on conservation projects.

[20] The Nature Conservancy (n.d. (a))
[21] Interview with Jackie Higgins, Swiss Re, April 2023
[22] *Ibid*
[23] *Ibid*

Key Insights into the Process and Relationship Aspects of the Partnership

This section offers recommendations based on the roles and processes learning involved in this partnership:

- **Leverage influence and networks to build trust.** The Cancun and Puerto Morelos Hotels' Association influence[24] was essential in convening hotel operators in the region to help design the partnership. Those hotels financed the Trust through their taxes.

- **Engage with local governments.** The local government enabled the Trust to use the existing tax structure to collect fees from the hotel owners.

- **Develop an independent governance body.** Due to public concerns over corruption,[25] the Trust is not managed by the government. Instead, an independent governance body involving experts, such as marine and freshwater scientists, economists, and financial experts, was created to ensure public and private sector interests are considered.[26]

- **Offer reliable financial mechanisms.** Insurance policies funded by the users and beneficiaries of nature could make communities less reliant on government programs, which are subject to budget fluctuations of each administration.[27]

- **Communicate the benefits.** In October 2020, Hurricane Delta hit the coast of Quintana Roo and triggered the policy. The resulting payout of $800,000 offset the costs of repairing the insured reefs.[28] It enabled 80 brigade members in the Puerto Morelos National Park (supervised by CONANP) to respond within a week. The brigade stabilized 1,200 large coral colonies that had been displaced and transplanted 9,000 broken coral fragments. [29] TNC and Swiss Re each drafted case studies and disseminated lessons learned from the experience through their communications platforms. Following the success of this partnership, parametric coral reef insurance has been duplicated to cover the Mesoamerican Reef system and the Hawaiian reef.[30]

[24] Green Finance Institute (n.d.)
[25] Meinecke, S. (2018)
[26] Green Finance Institute (n.d.)
[27] Kirkman, A. (2020)
[28] INAS (n.d.)
[29] Green Finance Institute (n.d.)
[30] Evans, S. (2022)

Partnership Blueprint 6:
Attracting Private Sector Financing for Adaptation Solutions by De-risking Investments through Blended Finance


Photo Credit: South Pole website

Landscape Resilience Fund, an Impact-driven Fund Mobilizing Private and Public Finance to Advance Climate Adaptation

This example highlights a blended finance revolving fund—combining public, private, and philanthropic funding—that offers low-interest flexible loans to small and medium enterprises (SMEs) to finance climate adaptation projects within the agriculture and forestry supply chains. The Landscape Resilience Fund (LRF) aims to strengthen the climate resilience of farming communities.

Timeframe: 2019–Ongoing

Description

Content and purpose. Adaptation costs continue to rise as the impacts from climate change accelerate. To safeguard communities, ecosystems, and business operations from climate change, companies need to invest in climate adaptation measures. However, to date, private sector climate adaptation initiatives and investments are not happening at the pace or scale needed. A lack of technical expertise on adaptation solutions and the uncertain financial viability of adaptation projects can discourage companies from undertaking such investments. To attract investment flows, blended finance can be used to lower the overall capital costs of adaptation projects, de-risk investments, and incentivize business participation.

The lack of private sector finance for adaptation drove South Pole,[1] a climate solutions consultancy with experience in managing impact funds, and the World Wide Fund For Nature (WWF),[2] the world's largest conservation organization, to co-develop the LRF. In 2019, South Pole first proposed a revolving loan fund focused on climate adaptation and sustainable landscapes to the European Institute of Innovation and Technology's (EIT) Climate-Knowledge and Innovation Community (KIC).[3] Convinced by the idea, EIT Climate-KIC provided seed funding for South Pole and WWF to collaboratively build out the LRF concept.[4]

At COP25 in 2019, the concept for the adaptation and sustainable landscapes fund was one of nine

[1] South Pole (n.d.)
[2] WWF (2020)
[3] EIT Climate-KIC (2020)
[4] Interview with Marie Andrée Liere, LRF, June 2023

winners of the first Challenge Program for Adaptation Innovation launched by the Global Environmental Facility (GEF).[5] During 2020, the LRF pitched its idea to a multinational company (MNC) that was seeking opportunities to finance community and landscape adaption projects.[6] The LRF officially launched in 2021.

Role of partnership. The partnership aims to enable the most climate-vulnerable populations in specific landscapes in the Global South to effectively adapt to climate change by mobilizing finance for commerce, communities, and conservation.[7] This partnership combined expertise from South Pole, which serves as the fund manager, oversees fundraising and financial management, and leverages its strong private sector network; WWF, which serves as an advisor and implementing partner and retains a seat on the board; a multinational company, which is providing anchor funding and also retains a seat on the board; and the GEF, which provided a $1.3 million grant to cover technical assistance efforts. South Pole and WWF leveraged their respective expertise in climate finance and conservation to design a revolving loan fund, which offers low-interest loans with flexible repayment options. The funds are reinvested into new SMEs to support adaptation efforts. The loans range from $0.5–2 million, with a loan duration of up to six years. By de-risking adaptation investments by agribusinesses, LRF aims to build the business case for adaptation and crowd in other firms to make similar investments at scale.

SME agribusinesses play a critical role in corporate value chains, yet their yields and livelihoods are at increasing risk from climate hazards.[8] Projects financed by the LRF contribute to reducing the vulnerability of agribusinesses—and the smallholder supplier communities these businesses depend on—by strengthening their capacity to establish and maintain climate-resilient farming and ecosystem management practices. The SMEs and their climate adaptation projects funded by the LRF are selected based on nine investment criteria,[9] including scalability, climate resilience, Sustainable Development Goals (SDG) co-benefits, and environmental and social safeguards. The SMEs work to preserve ecosystems, such as mangroves and forests, that are vital for protecting communities against climate threats such as floods or heatwaves.

Gaps and Challenges

Gaps and challenges addressed by partnership. The LRF was developed to unlock private investment in climate adaptation and in the land use space and address gaps faced by different stakeholders:

- It is often challenging for MNCs to engage directly with SMEs within their supply chains on topics such as climate-resilient agriculture, climate-smart livestock, and sustainable land management due to a lack of expertise and fragmented supply chain structures. By identifying and supporting SMEs to advance climate adaptation projects through the provision of low-interest, flexible loans, the LRF is paving the way for future productive collaborations between MNCs and SME suppliers to become more resilient to climate threats.

[5] GEF (2021)
[6] *Ibid*
[7] Landscape Resilience Fund, pitch deck
[8] GEF (2021)
[9] Landscape Resilience Fund, pitch deck

- Companies typically perceive investment in adaptation measures as risky, and the return on investment (ROI) for such investments is not yet firmly established. The LRF de-risks the financing of adaptation solutions by providing a mix of public and private finance and offers more affordable opportunities for private sector involvement and investment in adaptation.

- Innovative agricultural SMEs have limited access to affordable financing and are often excluded from formal financial instruments due to insufficient collateral or assets. The LRF provides these firms with financial support as well as technical assistance to be investment-ready.

- It is often challenging to establish public-private coordinated action to adapt to climate change. Through its landscape approach, the LRF facilitates multi-stakeholder partnerships where public sector entities also participate to support local governments in their climate commitments. Public sector organizations can benefit from new knowledge on best practices to establish climate-resilient projects.

Gaps between the partnership blueprint and the vignette. This vignette offers an example of using soft loans, with funding secured from GEF and other corporate climate leaders. The blueprint identifies several blended debt and equity fund structures funded by a variety of finance and investment sources (e.g., commercial debt/equity, concessional debt/equity, guarantee, insurance, and grants).

Critical Steps to Advance Climate Adaptation under the Blueprint

- **Identify promising SMEs.** The LRF leverages WWF and South Pole's extensive global network and regional relationships to identify new financing prospects or opportunities for collaboration. SMEs can also apply for funding on the LRF website. The funded SMEs are in developing countries where climate risks are high.[10] Through thorough screening and due diligence processes—including a review of the SMEs' business and financial records, alignment with the LRF's mission, and site visits—the LRF determines the ability of potential SME loan recipients to responsibly take on the debt. Often local debt providers are unwilling to financially support the SMEs, which leaves little risk of crowding out local finance. Once invested, the LRF regularly monitors the SMEs in its portfolio, providing support as needed to preempt any potential repayment issues.
- **Provide technical assistance and capacity building for SMEs towards investment readiness.** The LRF provides hands-on and financial support via the GEF Pre-Investment Support facility that offers resources or consultancy services depending on SMEs' needs. Technical assistance is provided to help facilitate the issuance of a loan, including support for financial modeling, drafting business plans, securing offtake agreements, supporting SMEs to develop environmental and social action plans, and monitoring and reporting. This can improve an SME's credibility, readiness, and likelihood to attract additional private investment.
- **Strengthen an integrated landscape approach.** The LRF supports multi-stakeholder platforms and serves as a trusted independent partner to locally engage critical stakeholders. Through the local landscape coordinators who are hired in each investment landscape, the LRF connects SMEs with local stakeholder organizations to strengthen landscape development and ecosystem management in the landscapes. For example, in Ghana, LRF connected cocoa SME Koa with the Forestry Commission of Ghana to gain additional support in the region. The LRF's landscape

[10] Landscape Resilience Fund (2023)

approach helps smallholder farmers gain access to better farming materials, such as drought-resistant seeds and training.[11]

- **Mobilize financial resources to catalyze investment in climate adaptation.** The LRF provides flexible, concessional loans to SMEs.[12] These low-interest loans with flexible payment options offer attractive financing models to SMEs advancing climate adaptation in the most vulnerable countries. The LRF created a revolving fund in which repaid loans are reinvested into new SME adaptation projects.

Key Insights into the Process and Relationship Aspects of the Partnership:

This section offers recommendations based on the roles and processes learning in this partnership:

- **Develop a robust governance structure.** The LRF relies on a board of trustees, including highly experienced practitioners, such as a sustainability officer at a multinational company, and a technical committee with expertise in deal structuring and climate adaptation. This governance scheme ensures effective strategic guidance for the fund.
- **Secure long-term financial support.** The LRF's revolving fund model enables it to be self-sustaining and capable of multiplying the impact of each dollar committed over time.
- **Nurture collaboration between the different partner organizations.** The close collaboration between WWF and South Pole mutually reinforced their efforts, with each entity's expertise—conservation and climate finance, respectively—complementing and enhancing that of the other.[13]

[11] Interview with Marie Andrée Liere, LRF, June 2023
[12] GEF (2021)
[13] Interview with Marie Andrée Liere, LRF, June 2023

VI. APPENDIX

Photo Credit: Jake Lyell for Millenium Challenge Corporation

List of Organizations Interviewed

MSP thanks the following organizations that participated in interviews or workshops. Their insights helped us shape our analysis:

The Coca-Cola Company • East-West-Seed • Global Resilience Partnership • Mars Inc. • Olam Agri • Sucafina and Ugacof • UNEP Copenhagen Climate Center • Unilever.

List of vignette participants: Paul Jeffries, former Chief of Party, AKIP; Marlena Kiefl, GIZ; Johannes Zimpel, CEO Inocas; Jackie Higgins, Senior Vice President, Public Sector Solutions, Swiss Re Management, US Corporation; Marie-Andrée Liere, Adaptation & Impacts Manager, Landscape Resilience Fund

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