In collaboration with PwC



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Critical Business Actions for Climate Change Adaptation

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Introduction

With the impacts of climate change becoming more frequent and intense, the need to manage risks and understand collaboration opportunities has never been more important. Since the adoption of the Paris Agreement, businesses have stepped up their engagement in global climate action. According to the Science Based Targets initiative, more than 1,800 companies have set science-based emissions reduction targets. While the focus on climate change mitigation *(reducing or preventing greenhouse gas emissions)* is positive and must continue, engagement in climate change adaptation *(reducing the negative impacts of climate change and leveraging opportunities)* lags.

(66)

Adaptation and mitigation must be pursued with equal force and urgency.

António Guterres, United Nations Secretary-General

Extreme weather events show that climate change is affecting the world now. The impacts will touch everyone, particularly the most vulnerable.

The number of climate- and weatherrelated disasters has risen almost

> 35% since the 1990s.¹

Global economic output could decrease by 11-18% by 2050 due to climate

change.2

Without action, they will intensify and the costs of adaptation will rise.

According to the CDP analysis of S&P 500 companies, physical climate risks will potentially have

\$40-50 billion

in impacts by 2026.3

Adaptation is gaining traction – but more action is needed, fast

While the past decade saw considerable progress on the Global Goal on Adaptation established under the Paris Agreement, actions fall short of requirements. Governments and donor agencies have driven most investments. Though companies are increasingly taking steps to assess their climate risks and plan for resilience (the capacity of systems to cope, respond or reorganize in ways that maintain their essential function, identity and structure while maintaining the capacity to adapt, learn and transform), action on adaptation remains challenging. It is highly context-specific and there is no unified ambition or target to act as a rallying point.

In 2020, just 7% of tracked global climate finance flowed to adaptation.⁴ Only 40% of CEOs have factored climate change into their risk-management strategies.⁵

1 The case for business action on climate change adaptation

Climate change adaptation is a business imperative for three principal reasons.

FIGURE 1

Why businesses should focus on adaptation.

1. Climate change impacts businesses and their value chains across geographies; this has implications for financial performance

By adapting to and building resilience to climate change, businesses can mitigate risks to their operations and value chains and avoid economic losses due to climate impacts

2. Climate change adaptation presents opportunities for business growth, innovation, efficiency and sustainability

Businesses can capitalize on opportunities by investing in climate change adaptation solutions, thereby gaining from increased revenue and cost savings

3. As climate change is a systemic issue with cascading impacts, global adaptation efforts require multistakeholder collaboration to succeed

By complementing government and public sector efforts, businesses can contribute to protecting communities and ecosystems and beneficial outcomes

By investing in climate change adaptation, companies can lead and help galvanize a system response, while protecting their business

1. Risks to business are ubiquitous, complex and costly

Climate hazards present risks to businesses worldwide but are location-specific. Their impacts depend on the business's characteristics, supply chain spread and complexity. They can be direct or indirect. Direct risks impact business operations; indirect risks impact its upstream and downstream value chain or the wider ecosystem and communities on which it depends, for example for workers or raw materials. Combined, they can have implications on the financial performance.

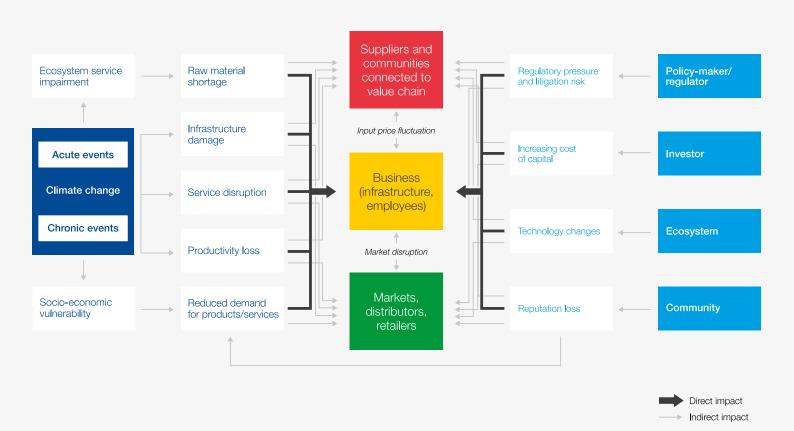
Analysis of 2021 data gathered by CDP for 93 major companies estimates climate hazard impacts of \$250-273 billion.⁶

FIGURE 2

2 Climate change impacts on business

Impacts due to changing climate

Impacts due to transition to climate-resilient economy



2. Adaptation opens avenues to efficiency, growth, innovation and sustainability

Large-scale public and private sector adaptation efforts are needed to protect businesses, communities and ecosystems from climate change impacts. This requires working together to invest in adaptation strategies across sectors and integrating adaptation and mitigation. This will generate demand for products and services and open up new markets, all of which can help generate revenue and achieve efficiency while making ecosystems and communities resilient.

\$19-20 billion potential adaptationrelated opportunities reported by 93 companies in 2021.⁷

1. Revenue	egeneration	2. Cost savings and sustainability					
Adaptation solutions		Adaptation actions					
Support climate risk-related decision-making and enhance preparedness	Reduce sectoral and geographic vulnerabilities	Implement resource-efficiency practices that contribute to business efficiency and sustainability	Pursue nature-based solutions with mitigation co-benefits that contribute to net-zero goals				
Examples							
 Climate/weather data Software/hardware for data generation/ processing Early warning systems Advisory, design, project management and monitoring services Climate risk insurance 	 Drought-resistant crops Cloud seeding Insulation systems 	 Water conservation/water efficiency measures Grid modernization 	 Afforestation Reforestation Wetland restoration Restorative agriculture Mangrove protection 				

3. Business needs to be part of global climate change adaptation efforts

Given the magnitude and far-reaching nature of climate change impacts, businesses cannot afford to restrict adaptation actions to their operations and value chains. A company operates within a system comprising other businesses, organizations and communities; it cannot achieve the level of action needed to effectively tackle adaptation alone.

Businesses have a key role to play by contributing their knowledge, expertise and resources. This will, in turn, benefit businesses, which are ultimately dependent on a stable and secure operating environment for their future success. \$1.8 trillion worth of investments in early warning systems, climate-resilient infrastructure, improved dryland crop production, mangrove protection, and resilient water resources from 2020 to 2030 could generate \$7.1 trillion in net benefits including avoided losses and economic, social and environmental benefits.⁸

2 A framework for business action on climate change adaptation

The pressing case for business action is clear. So how should businesses respond? Each business should evaluate the pillars and core actions that apply to their context and focus on those that are the most relevant and impactful to them.

Businesses can follow the enabling actions to create a favourable business environment to implement them. They should do this by working with stakeholders whose knowledge and insights are crucial for action on adaptation.

FIGURE 4

Framework for business action on adaptation

Business case	Avoid economic losses	Increase revenue, cost savings and sustainability	Protect communities and ecosystems		
Pillars	1. Enhance resilience	2. Capitalize on opportunities	3. Shape collaborative		
			outcomes		
	\bullet	\bullet	\bullet		
Core actions	Assess the impacts of climate risks on business and act to adapt and build resilience	Leverage products, services and business models that help businesses, communities and ecosystems adapt to and build resilience	Participate in multistakeholder efforts that promote action on climate change adaptation		
	Work with suppliers and communities connected to the value chain to enhance business resilience	Pursue adaptation opportunities that contribute to efficiency, sustainability and climate change mitigation	Deliver transformative projects to build community and ecosystem resilience		
Enabling actions	Establish a climate strategy that integrates climate change adaptation and net-zero transformation				
	Mainstream climate risk considerations into business decision-making				
	Make comprehensive and transparent climate disclosures				

2.1 | Pillar 1: Enhance resilience

Assess the impacts of climate risks on business and act to adapt and build resilience

Mitigate risk by adapting and building resilience to current and future climate change impacts.

Consider:

- Conducting climate risk assessment of operations, including scenario analysis
- Identifying adaptation and resilience measures based on the climate risk assessment
- Implementing the measures identified, monitoring progress and evaluating their effectiveness

Work with suppliers and communities connected to the value chain to enhance business resilience

Involve the larger ecosystem connected to their value chain to ensure business continuity.

Consider:

- Conducting value chain climate risk assessments to identify hotspots
- Conducting community- and ecosystemlevel climate risk assessments to prioritize adaptation areas
- Supporting value chain stakeholders with technical and managerial skills and financial support
- Collaborating with communities to ensure the sustainability of critical natural resources

2.2 | Pillar 2: Capitalize on opportunities

Leverage products, services and business models that help businesses, communities and ecosystems adapt and build resilience to climate risks

Respond to increasing demand for products, services and business models that enhance the resilience of communities and businesses.

Consider:

- Reviewing how existing or new products and services can support adaptation
- Investing in adaptation solution research, development and innovation
- Collaborating with other businesses and stakeholders to develop new adaptation solutions and to create a system that fosters innovation and scales up solution deployment

Pursue adaptation opportunities that contribute to efficiency and sustainability

Implement adaptation interventions to drive efficiency and sustainability; leverage adaptation opportunities that also contribute to the net-zero transition.

Consider:

- Prioritizing adaptation interventions related to natural resource conservation, resource efficiency and climate change mitigation while developing a climate change strategy
- Exploring the monetization of adaptation projects that sequester carbon under carbon market mechanisms
- Working with other businesses and communities to implement these strategies

2.3 | Pillar 3: Shape collaborative outcomes

Participate in multistakeholder efforts that promote action on climate change adaptation

Catalyse comprehensive government, stakeholder and community action on adaptation by leveraging unique competencies, resources and scale. Consider:

- Engaging with governments by participating in policy-making and planning processes
- Collaborating with national, regional and local governments to implement adaptation strategies

- Collaborating with industry players, community and indigenous leaders, academia and development agencies to promote action on adaptation
- Contributing insights and experiences to support global adaptation efforts

Deliver transformative projects to build community and ecosystem resilience

Play a role in delivering on the Global Goal on Adaptation by co-creating adaptation projects with and for communities and ecosystems that are not directly part of their value chain.

2.4 | Enabling actions

Create a favourable organizational environment to enhance business resilience, capitalize on opportunities and catalyse systemic action.

Establish a climate strategy that integrates climate change adaptation and net-zero transformation

Adopt a holistic approach that looks at adaptation and net-zero transformation as integral and equally important climate strategy components and draw synergies between the two.

Consider:

- Formulating a climate policy that integrates mitigation and adaptation strategies
- Communicating the policy and strategy to all stakeholders
- Establishing a governance mechanism that includes board oversight

Mainstream resilience considerations into business decision-making

Act on the adaptation agenda more effectively by integrating climate change risks into business decision-making, establishing systems and processes focussing on planning and implementing adaptation strategies, and allocating financial and human resources.

Consider:

 Integrating climate risk assessment and adaptation planning into risk management and business continuity planning

Consider:

- Joining initiatives that focus on adaptation, such as the Race to Resilience
- Designing, investing and implementing adaptation projects with other businesses, the public sector or non-state actors
- Adding a climate lens to existing community programmes to address the vulnerabilities of beneficiaries
- Providing technical and financial support to community and non-governmental organizations or others involved in adaptation
- Viewing climate risk and adaptive capacity as criteria for new investments and when reviewing existing projects
- Assigning climate action roles and responsibilities at all management levels
- Building employee skills in and knowledge of adaptation
- Linking management and staff compensation to successful climate strategy implementation
- Prioritizing financial resource allocation and technical expertise for successful climate strategy implementation

Make comprehensive and transparent climate disclosures

By publishing climate disclosures, businesses can gain the trust of investors and customers. Climate reporting has the potential to be a strategic lever in driving value creation and ensuring the systems, processes and information are in place to inform decision-making and deliver sustainable outcomes.

Consider:

 Developing climate disclosures aligned with the Task Force on Climate-related Financial Disclosures (TCFD) and other guidance

The beginning of a journey

The World Economic Forum is focused on catalysing business action on adaptation through a multistakeholder approach. The new Business Agenda on Climate Change Adaptation initiative, which includes over 65 companies and organizations, will host dialogues and facilitate collaboration on aspects of this framework through 2023 and beyond.



Contributors

This briefing paper, developed in collaboration with PwC, presents a framework that businesses can use to develop their climate change adaptation approach. It was shaped through consultation with a broad group of stakeholders from business, government, civil society and international organizations.

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