



# Climate Finance Taxonomies:

## Frameworks for the current landscape

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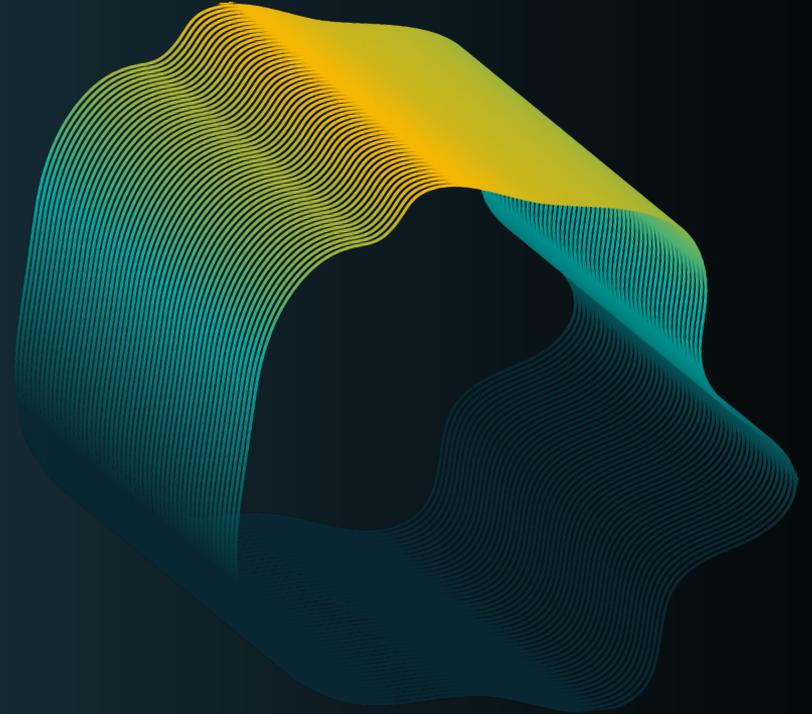
The Climate Landscape Series

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**BFA**GLOBAL



## The Climate Landscape Series Decks

Welcome to our Climate Landscape Series, now available as a public good for all interested parties. Produced by BFA Global, this collection of decks spans essential topics in climate action and finance, including climate justice, the dynamics of digital and climate finance, and the impact of climate change on gender, among others. Aimed at demystifying the complexities of climate action, this series is particularly beneficial for those at the forefront of environmental and financial inclusion efforts, including microfinance institutions, fintechs, and a broad spectrum of stakeholders such as policymakers, financial service providers, NGOs, and academic researchers.

This series, **Climate Finance Taxonomies: Frameworks for the current landscape**, is designed to inform and guide government officials, financial institutions, NGOs, and development practitioners. By making this content widely available, we aim to empower a diverse audience to develop, benchmark, and implement effective strategies and policies for a more resilient and sustainable future.

Our objective is to ensure that this comprehensive resource contributes to the global discourse on climate action, serving as a foundational tool for enhancing climate resilience and fostering inclusive, sustainable development.

# What are taxonomies at the intersection of climate action and inclusive finance?

- A taxonomy for climate action and inclusive finance is a classification system designed to categorize financial and economic activities based on their environmental sustainability, and their contribution to climate mitigation, adaptation, resilience and transition.
  - Studying such taxonomies is important because they: a) facilitate organizing information around how climate action does or can intersect with inclusive finance, b) standardize communication between stakeholders who have diverse specializations, and c) support decision making around where to focus efforts.
- They are still under development, and **there is no single taxonomy for climate action and inclusive finance that is universally accepted.**
  - The [European Union's \(EU\) taxonomy for sustainable finance](#) is a **classification system to help investors and businesses determine which activities are genuinely 'green' or sustainable.** It's one of the most detailed taxonomies available, providing specific criteria for determining whether an economic activity is environmentally sustainable.
  - The [CGAP's taxonomy of climate-responsive financial services](#) aims to provide a framework for the development and delivery of financial products that respond to climate challenges. **This taxonomy classifies products based on their objectives, such as mitigation, adaptation, or a combination of both.** It then further delineates the types of services provided, like loans, insurance, savings, or payment services, and how they address specific climate vulnerabilities.

(contd...)



## Intended Audience

This deck would be valuable to a range of stakeholders involved in environmental finance, policy-making, sustainable investing, and related fields.

**Government Officials and Regulatory Bodies:** to guide the development of more effective, standardized approaches for climate finance that benefits vulnerable groups.

**Financial Institutions and Investors:** to align their portfolios with environmental goals and make informed decisions regarding sustainable investments and risk management.

**Corporate Leadership:** to aid in strategic planning, compliance with sustainability reporting standards, and the development of green products or services.

**Environmental NGOs and Advocacy Groups:** to push for standardization in climate finance, engage with policymakers and the public, and support their funding strategies or project implementations.

**International and Multilateral Development Organizations:** to shape their funding mechanisms and for fostering global cooperation on climate finance.

**Academic Institutions and Researchers:** as a basis for further research on the evolution and effectiveness of climate finance taxonomies.

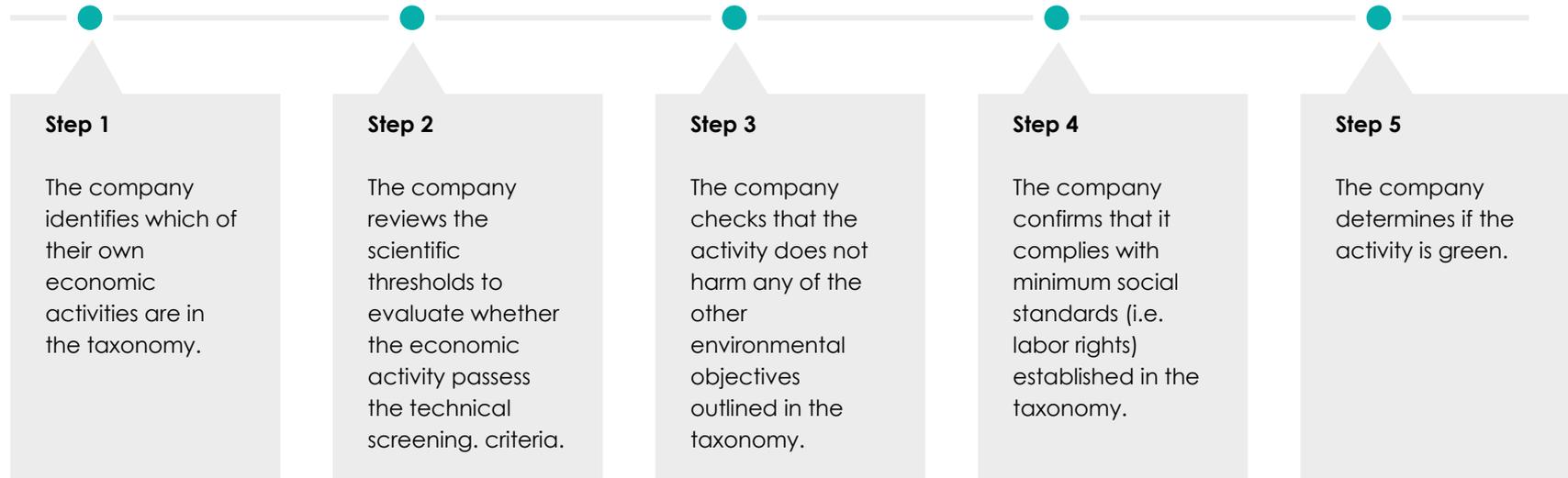
**Environmental Entrepreneurs:** to understand how existing setups can impact funding opportunities and investment attractiveness.



# How does a climate action / inclusive finance taxonomy work?

**A self assessment process by the company to decide if it can be considered “green” or not**

- Investors who are selling financial products in Europe as “sustainable” are required to report their taxonomy assessment.
- Taxonomy figures of invested companies/securities are disclosed after companies themselves have reported their taxonomy assessments.

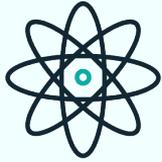


# Current status of taxonomies around the world



This detailed review found over 30 taxonomies that relate to **climate action** and **inclusive finance** in a development context.

- The EU is a frontrunner in terms of taxonomy development. Many countries or regions have based their own frameworks on the EU's.
- 16 of the G20 countries have already implement, announced or worked on a taxonomy.
- In place (part of EU - France, Germany, Italy), China, Indonesia, Russia, South Korea, South Africa)
  - Announced: Brazil
  - Working on creating their own: Australia, UK, India, Mexico, Canada and Japan
  - Considering: US, Argentina and Turkey.



## Build a network of experts

Bring together a mix of sustainability experts and academics and consider reviewing and inviting experts from the International Platform on Sustainable Finance (IPSF)



## Agree framework and objectives

Advise on defining the scope of the taxonomy, methodology, principles, and objectives.



## Define technical criteria

Define “carbon emissions thresholds”, social impact definitions, etc. Leverage expertise in existing taxonomies.

# EU Taxonomy for sustainable finance

The Taxonomy Regulation also sets out 4 overarching conditions that an economic activity must meet in order to qualify as environmentally sustainable:

1

Making a **substantial contribution** to at least one environmental objective

2

Doing **no significant harm** to any of the other five environmental objectives

3

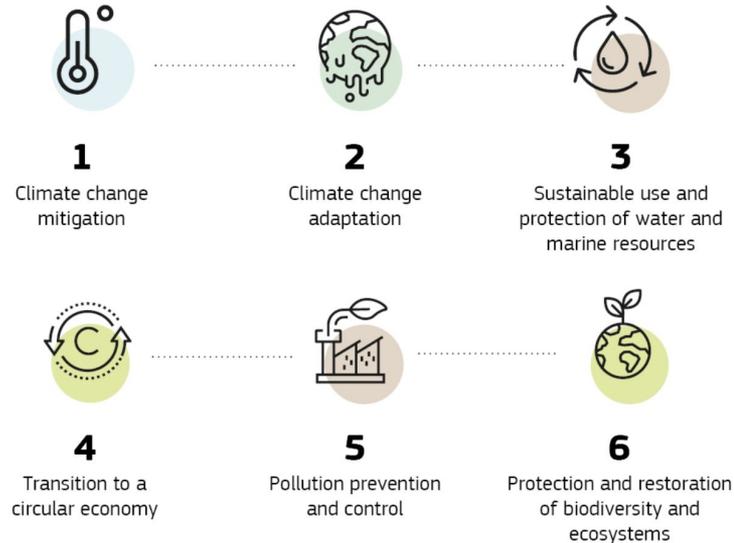
**Complying** with **minimum safeguards**

4

Complying with the **technical screening criteria** set out in the **taxonomy delegated acts**

# EU Taxonomy for sustainable finance

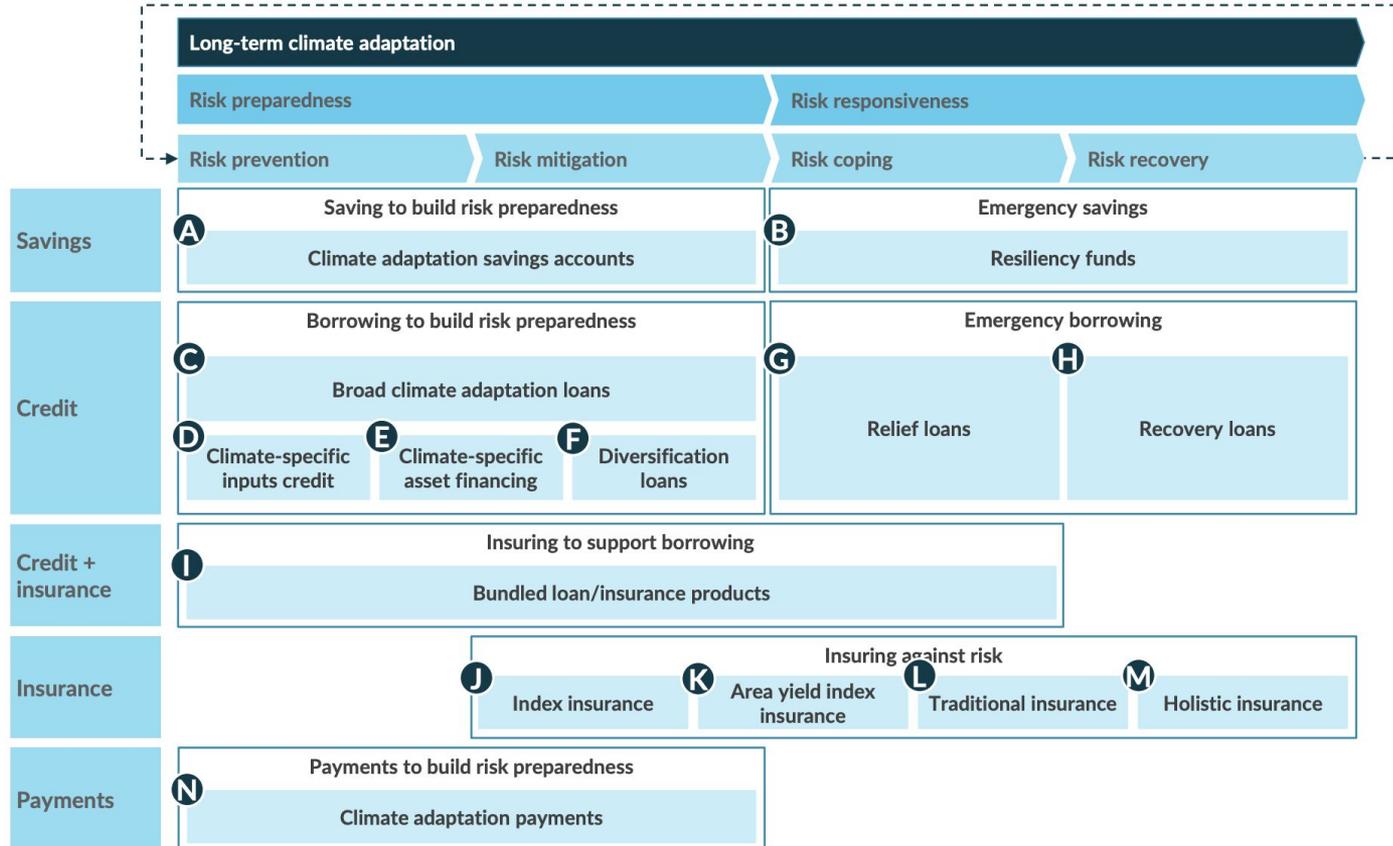
## Climate and Environmental Objectives of the Taxonomy Regulation:



- The EU Taxonomy or Taxonomy Regulation is a cornerstone of the EU's sustainable finance framework and an important market transparency tool. It helps direct investments to the economic activities most needed for the transition, in line with the European Green Deal objectives.
- **The taxonomy is a classification system that defines criteria for economic activities that are aligned with a net zero trajectory by 2050 and the broader environmental goals other than climate.**



# CGAP's proposed taxonomy of climate-responsive financial services

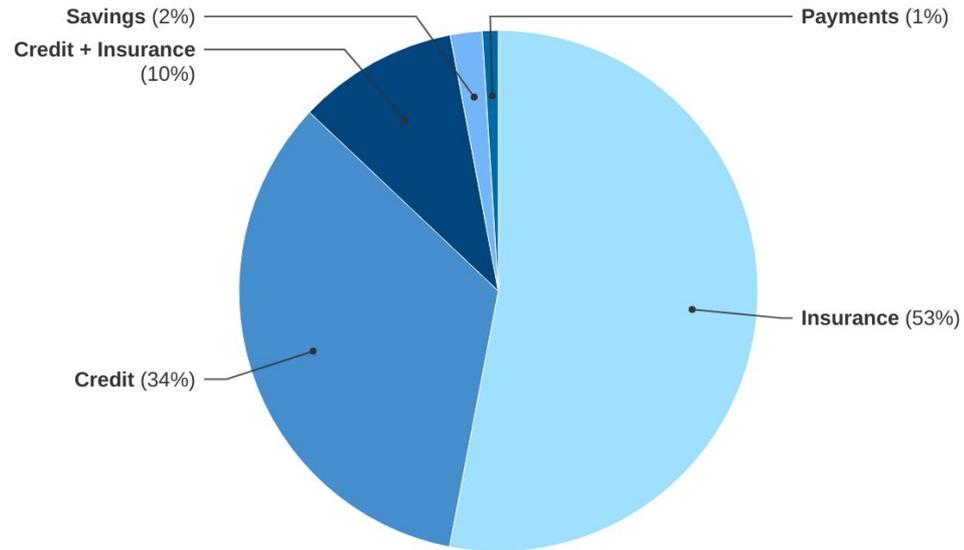


Source: [CGAP](#)



## CGAP's analysis on identified climate-responsive financial services

### Climate-responsive financial services: Product type breakdown

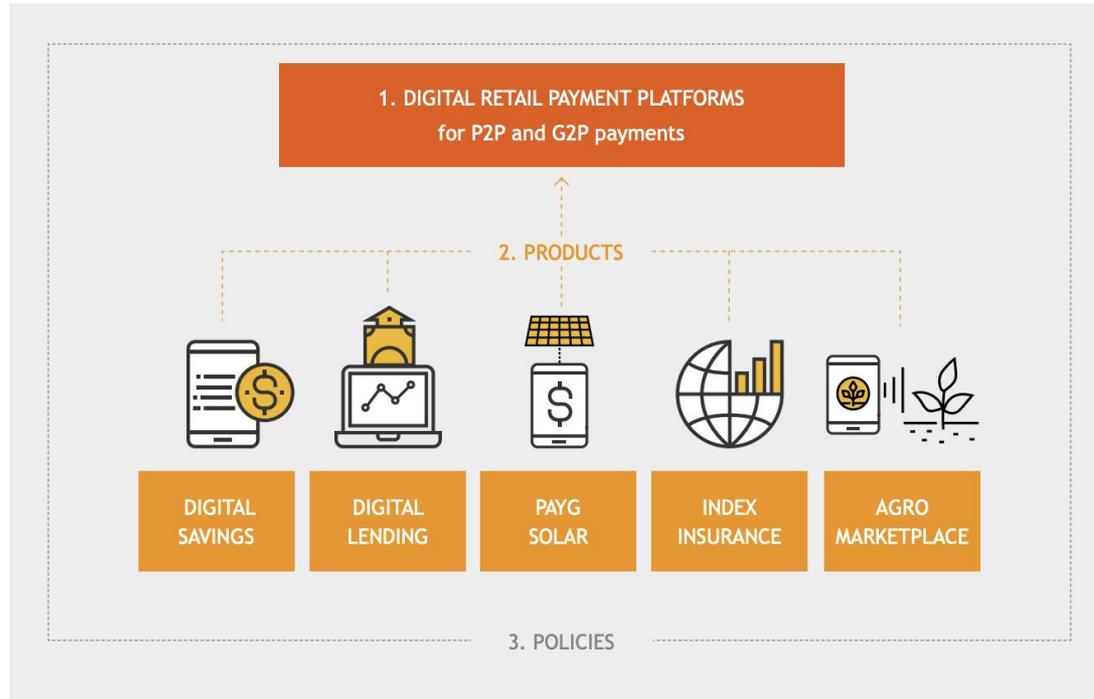


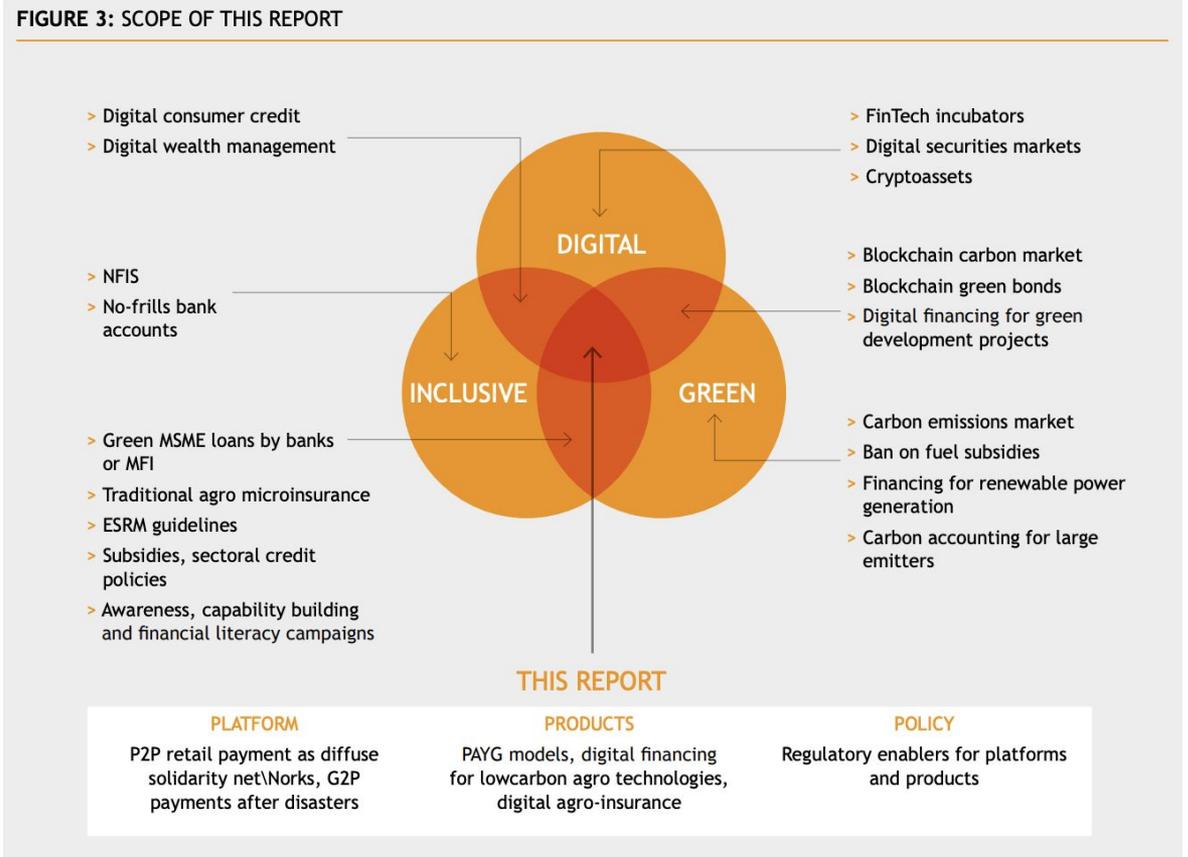
Source: CGAP | Dalberg



# AFI's analysis on climate-responsive financial services

While their research might not be a taxonomy, [AFI](#) provides insights into how digital financial mechanisms can be categorized based on their utility in supporting green finance and inclusivity.





# Climate action-adjacent taxonomy for regulators

To-	Determine details on who the taxonomy applies to and when	Define which economic activities should fall under the taxonomy scope	Establish scientific technical screening criteria to determine if the selected activities should be defined as sustainable or not	Outline and guide stakeholders on how to use the taxonomy for different needs
<p><a href="#">EU Taxonomy examples</a></p>	<p>Companies: Operating in Europe with more than 500 employees and \$40 million annual revenue</p> <p>Investors: Any financial product sold in Europe that is marketed as sustainable</p>	<ol style="list-style-type: none"> <li>1. Electricity generated from hydropower</li> <li>2. Manufacturing of aluminium</li> <li>3. Freight rail transport</li> <li>4. Manufacture of food products and beverages</li> <li>5. Tanning of leather</li> </ol>	<ol style="list-style-type: none"> <li>1. Emissions from the generation of electricity from hydropower energy are lower than 100gCO<sub>2</sub>e/kWh</li> <li>2. Emissions from the manufacturing of aluminium do not exceed 1.5 tCO<sub>2</sub>e per ton of aluminium</li> </ol>	<ol style="list-style-type: none"> <li>1. Generate investment for green projects (i.e. green bonds)</li> <li>2. Company sustainable evaluation</li> <li>3. Comparing level of sustainability of financial products</li> </ol>



## Other taxonomies of interest

- The **Alliance for Financial Inclusion (AFI)** focuses on empowering policymakers to increase access to quality financial services for the underserved through inclusive and responsible policies. While [their research](#) might not be a taxonomy in the strictest sense, it provides insights into **how digital financial mechanisms can be categorized based on their utility in supporting green finance and inclusivity.**
- [Adaptation Solutions Taxonomy](#) which aims to enhance the availability and uptake of climate adaptation solutions by identifying, engaging and empowering SMEs providing such solutions in developing countries.



# CFI's Green Inclusive Finance framework

A framework for understanding how financial services can help low-income and vulnerable people respond to climate change

TABLE 1: Framework for Green Inclusive Finance		
Pathway	Role of Inclusive Financial Services	Example of Inclusive Financial Solution
 <b>Mitigation</b>	To support the adoption of green technologies and practices that can improve local environmental conditions for households and communities	<ul style="list-style-type: none"> <li>➤ Installment plans to pay for solar lighting systems</li> <li>➤ Financing of “clean” cookstoves (e.g., those powered by electricity or biogas)</li> </ul>
 <b>Resilience</b>	To support the financial resources needed to prepare for, manage through, and recover from climate-related shocks	<ul style="list-style-type: none"> <li>➤ Weather/livestock index insurance</li> <li>➤ Easy-access savings</li> <li>➤ Social protection payments for food or wage security</li> </ul>
 <b>Adaptation</b>	To support necessary changes to livelihood strategies in response to longer-term climate-related events	<ul style="list-style-type: none"> <li>➤ Financing to farmer producer groups for high-value crop diversification and value chain linkages</li> <li>➤ Financing to support weatherproofing homes</li> </ul>
 <b>Transition</b>	To support shifts to new livelihood strategies in response to and in anticipation of future climatic events	<ul style="list-style-type: none"> <li>➤ Financing/remittances for migration to new locations</li> <li>➤ Financing to invest in vocational training for new livelihoods</li> </ul>



# BFA's Menu of Climate Action

Mapping of (Sectors + Activities) X (Climate Action Dimensions + Vulnerable Groups + Financial Products and Services)		Dimension				Vulnerable groups			Financial Products and Services									
		Resilience	Adaptation	Mitigation	Transition	Women	Urban Workers	Small producers	Loans			Payments		Insurance		Savings		
									Green	Emergency	Recovery	Conditional	Unconditional	Standalone	Bundled	Index	Goal-based	
Sectors	Activity																	
AGRICULTURE	Regenerative agriculture	✓				✓		✓								✓		✓
	Financing of water-efficient practices	✓						✓										
	Mitigation against erratic weather		✓					✓		✓			✓	✓		✓		
	Financing for pest-resilient crops		✓					✓			✓					✓		✓
	Financing for stress-tolerant seeds and agricultural methods		✓					✓	✓						✓	✓		✓
AGROFORESTRY	Agroforestry		✓	✓				✓			✓				✓	✓		
	Community-based forest management			✓				✓			✓							
GREEN ENERGY	Reduce GHG emissions			✓		✓		✓										
	Investment in low-carbon energy sources			✓		✓		✓										
DISASTER RISK MANAGEMENT	Hyper-local climate risk monitoring	✓						✓		✓		✓						
	Anticipatory fund disbursement	✓	✓			✓	✓	✓		✓		✓	✓			✓		
	Financing for storm-resilient infrastructure		✓					✓										
	Investment in flood mitigation technologies		✓					✓					✓					
LIVELIHOODS	Financing of green tech SMEs	✓		✓	✓	✓		✓		✓								
	Smoothed out income streams in climate-vulnerable industries	✓	✓			✓	✓	✓		✓	✓	✓	✓					✓
	Finance green skill development				✓	✓	✓	✓			✓							
WHOLESALE	Green bonds and first-loss provisions for last-mile institutions	✓				✓		✓										

MENU OF CLIMATE ACTION



“Evaluative researchers have only just begun to carefully characterize and determine how **financial services influence how low-income and vulnerable populations respond to and recover from current climatic impacts.**”

Source: [AFI Global report](#)



# Climate shocks and finance

“**Research** has shown that most households affected by shocks face increased expenses.

They need to secure their food supplies, make essential house repairs and replace essential tools and equipment, including mobile phones, electricity, livestock and farming equipment, that were damaged or lost.

The range of immediate needs is extremely diverse and context dependent, hence virtually impossible to map comprehensively.”

Priority financial services in contexts of climate shocks: a conceptual framework



# Lightsmith Adaptation Solutions Taxonomy (ASAP Taxonomy)

1

From 2020, funded by the Global Environmental Facility (GEF), Conservation International and InterAmerican Development Bank (IDB).

2

It builds on the EU Tax and 7 other taxonomies (among those CTCN [taxonomy](#) **which starts defining the risks**).

3

A panel of experts peer reviewers including Climate Policy Initiative (CPI), International Finance Corporation (IFC), Climate Bonds Initiative, DTU, EBRD, EIB, IDB and LSE.

4

It aims to enhance the availability and uptake of climate adaptation solutions by identifying, engaging and empowering SMEs providing such solutions in developing countries.

5

ASAP targets SMEs providing climate adaptation intelligence, products and services

6

Focuses on regions where climate adaptation is a priority

7

Focus on most needed adaptation solutions: (evidence from 21 countries' climate technology priorities)

8

Seeks to enhance the supply and uptake of climate adaptation solutions most needed in developing countries



# Lightsmith Adaptation Solutions Taxonomy (ASAP Taxonomy)



## Resilience+ Innovation Facility

### Alternative indexed financial tools can overcome some limitations of index insurance

Agricultural index insurance has been shown to provide needed support in the event of a shock as well as to unlock investments for greater productivity and income. However, sustained adoption has been a challenge. **The University of California Davis has partnered with the Bill & Melinda Gates Foundation and BFA Global** to deploy alternative financial instruments that can leverage the same index to fill some of the gaps left by insurance.

**The blend of these three indexed financial instruments makes it possible for small-scale farmers to dynamically manage their risk over time.**



<b>Agricultural Index Insurance (II)</b>	<p>For the cost of an insurance premium paid in advance, II releases payouts if the underlying index predicts crop losses.</p> <ul style="list-style-type: none"><li>• Includes leverage: a small pre-paid amount unlocks a large future amount.</li><li>• Requires trust in the index and cash for premiums.</li></ul>
<b>Contingent Savings Account (CSA)</b>	<p>A farmer can use a CSA to save money more safely with the promise of receiving interest if the underlying index predicts crop losses.</p> <ul style="list-style-type: none"><li>• No leverage: only gives access to the amount saved plus interest in an emergency</li><li>• Requires cash.</li></ul>
<b>Contingent Line of Credit (CLOC)</b>	<p>Farmers who are pre-approved for a CLOC receive a loan in the event that the underlying index predicts crop losses.</p> <ul style="list-style-type: none"><li>• Includes leverage: zero up-front cost to unlock a large amount in an emergency.</li><li>• Requires creditworthiness.</li></ul>

## BRAC emergency credit: A new type of indexed loan to address smallholder risk

1

**Financial service providers (FSPs)** often withhold credit from borrowers who have suffered an income shock because they are concerned about default risk. Without safety nets clients are forced into costly coping strategies – reducing consumption, pulling children out of school, selling assets, etc. The traditional lending strategy by FSPs to link credit access to income is a missed opportunity to build resilience.



## BRAC emergency credit: A new type of indexed loan to address smallholder risk

2

In Bangladesh, **BRAC provided pre-approved households a line of credit in the event of a flood disaster.** This new type of loan, or “Emergency Loan” initiated liquidity for rice farmers when a flood index was triggered [The Emergency Loan provided up to 50%](#) principal amount of a client’s last regularly approved loan. A randomized controlled trial showed that **the Emergency Loan generated similar benefits of agricultural index insurance with the potential to quickly scale** through existing MFI operations.

**Resilience:** For smallholders experiencing a flood, the Emergency Loan provided needed to maintain consumption and continue farming practices.

**Productivity Boost:** With the knowledge that they had access to this risk management solution, treatment group farmers invested more in their farms. Pre-approval for the loan generated increased investments in food production by 15% and an 9% increase in consumption.

**Business Case for the FSP:** The Emergency Loan had overall repayment rates that were nearly identical to conventional microfinance loans, net revenues were 4% higher for BRAC branches that made the Emergency Loan available.



## Additional resources



Other “Taxonomies” about household and limited financial options in face of emergencies/calamities.

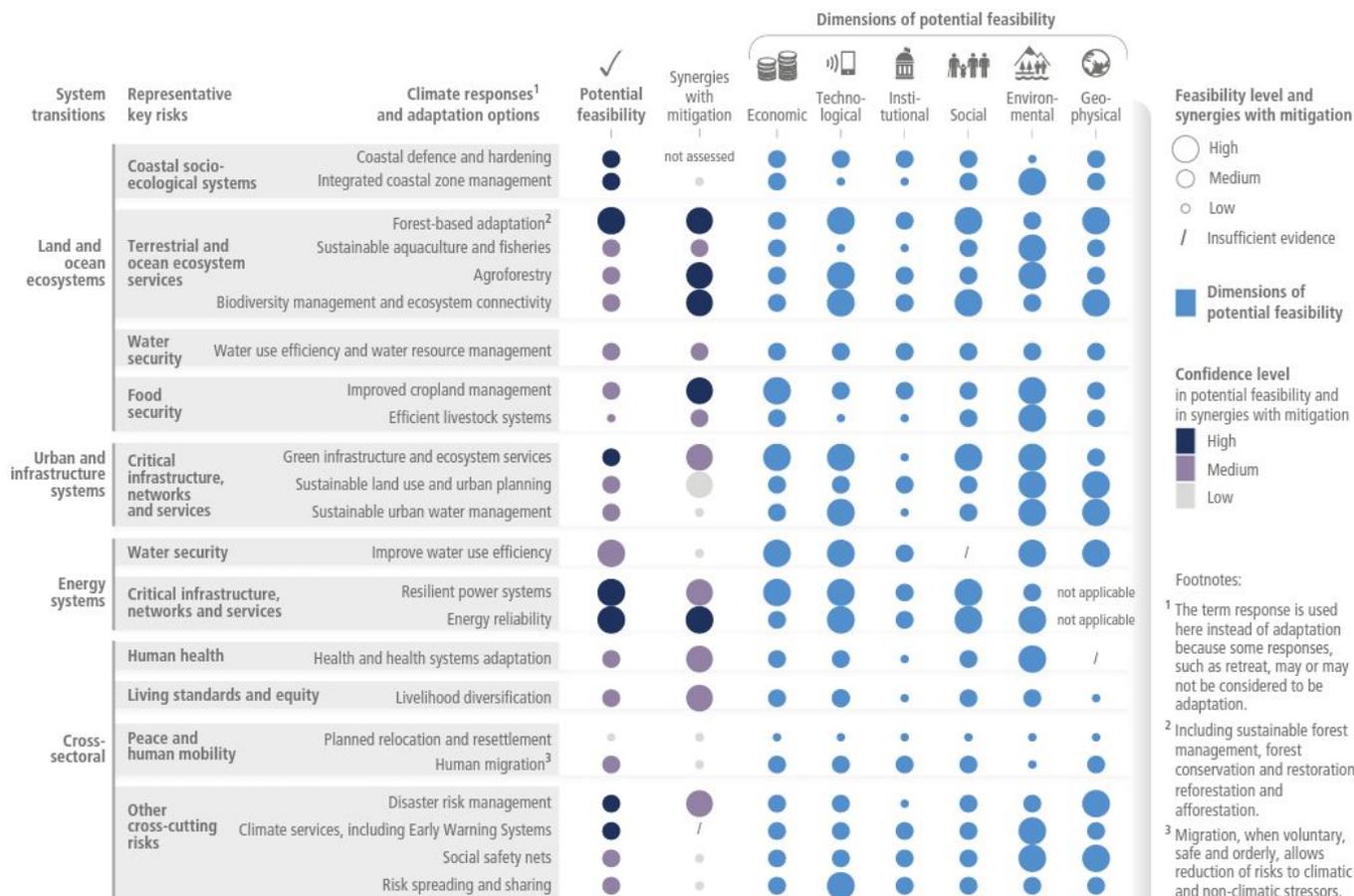
- [The Role of Financial Services in Humanitarian Crises](#), Mayada El-Zoghbi, Nadine Chehade, Peter McConaghy, and Matthew Soursourian, Access to Finance Forum, April 2017
- [Financial instruments for disaster risk management and climate change adaptation](#), Linnerooth-Bayer, J., Hochrainer-Stigler, S. International Panel on Climate Change (IPCC), 2015.



Analysis based on the Intergovernmental  
Panel on Climate Change Report,  
Climate Change 2022:  
Impacts, Adaptation and Vulnerability.

(a) Diverse feasible climate responses and adaptation options exist to respond to Representative Key Risks of climate change, with varying synergies with mitigation

Multidimensional feasibility and synergies with mitigation of climate responses and adaptation options relevant in the near-term, at global scale and up to 1.5°C of global warming



[Intergovernmental Panel on Climate Change Report,](#)

[Climate Change 2022:](#)

[Impacts, Adaptation and Vulnerability.](#)



## (b) Climate responses and adaptation options have benefits for ecosystems, ethnic groups, gender equity, low-income groups and the Sustainable Development Goals

Relations of sectors and groups at risk (as observed) and the SDGs (relevant in the near-term, at global scale and up to 1.5°C of global warming) with climate responses and adaptation options



System transitions	Climate responses <sup>1</sup> and adaptation options	Observed relation with sectors and groups at risk				Role of Financial Services	Example of Intervention
		Ecosystems and their services	Ethnic groups	Gender equity	Low-income groups		
Land and ocean ecosystems	Coastal defence and hardening Integrated coastal zone management	-	/	-	-		
	Forest-based adaptation <sup>2</sup>	not assessed					
	Sustainable aquaculture and fisheries Agroforestry	+	+	+	+		
	Biodiversity management and ecosystem connectivity	+	/	/	-		
	Water use efficiency and water resource management	+	•	•	•	Financing for water-efficient methods	Water-saving tech, desalination
Urban and infrastructure systems	Improved cropland management Efficient livestock systems	+	+	+	+	Insurance against soil degradation	Area yield index insurance, drought-resistant seeds
	Green infrastructure and ecosystem services Sustainable land use and urban planning Sustainable urban water management	+	/	+	+	Invest in low-carbon technology	Solar Loans
	Improve water use efficiency	+	/	•	•		
	Resilient power systems Energy reliability	not assessed					
	Cross-sectoral	Health and health systems adaptation Livelihood diversification	•	•	+	+	Financing for green tech SMEs
Planned relocation and resettlement Human migration <sup>3</sup>		+	•	•	•		
Disaster risk management		not assessed				Technical training for resilient practices	Insurance, funding of risk responsiveness
Climate services, including Early Warning Systems Social safety nets		+	/	-	+	Hyper-local climate risk assessment	Relief loans, hyper-local early warning apps
Risk spreading and sharing		-	-	•	•	Carbon credits and trading	PayGO cook stoves



# Catalyst Fund's Investment Thesis

The Catalyst Fund is a VC fund and accelerator backing early-stage tech entrepreneurs who are scaling solutions for a climate-resilient future in Africa. It focuses on backing game-changing entrepreneurs building tech and tech-enabled ventures offering affordable, accessible and appropriate solutions for climate-vulnerable communities across key economic sectors, and we grow them to become commercial and scalable companies. Sharing the investment thesis, as it comes from an analysis and understanding of the sectors.

Disclosure: BFA Global is the general partner and venture building provider of Catalyst Fund.

# Catalyst Fund's investment theses

Our theses point to a specific set of solutions, each carefully selected for their role in building resilience among vulnerable people

## THESES

**FINANCIAL  
RESILIENCE**



**SUSTAINABLE  
LIVELIHOODS**



Climate-smart  
**ESSENTIAL  
SERVICES**



## SOLUTIONS

Insurance  
Carbon finance  
Emergency payments  
Data for pricing risk

Climate-smart agtech  
Green economy  
Fishery management  
Agro-forestry management

Water management  
Cooling & Ventilation / Cold storage  
Sustainable energy access  
Waste management

## RESILIENCE OUTCOMES

Households and users have access to range of financial services that build their financial health and resilience.

Vulnerable people access and develop livelihoods that are adapted to climate change and its related effects.

Vulnerable people access essential services that are adapted to climate change and equip them to manage its impacts.



## Catalyst Fund's African regional investment insights



Four billion people worldwide are vulnerable to the impacts of climate change and urgently need solutions to prepare, adapt and build resilience. Without solutions, 130 million people may fall back into poverty due to climate change impacts, erasing decades of hard-earning development gains. **Resilience solutions are quickly becoming a basic demand for populations who are most exposed.**



Although it has contributed less than 4% of global emissions, **Africa is the most vulnerable continent to climate change**, with 48% of the continent's GDP vulnerable to extreme climate patterns. Global stakeholders are recognizing this imbalance and building resilience and adaptation is increasing becoming a priority for many actors and over \$100 billion will have been allocated to climate finance by this year with over \$30 billion going to Africa.



## Catalyst Fund's African regional investment insights



Experts suggest that climate adaptation in Africa will require financing of over \$50 billion a year until 2030. Globally, estimated annual adaptation needs are \$160-340 billion by 2030 and \$315-565 billion by 2050.



Catalyst Fund's goal is to **start filling this gap, catalyze more investment, and enable the emergence of many more solutions to build a more resilient future**. Catalyst Fund companies provide climate resilience solutions with embedded fintech innovations (i.e. Bekia, Cold Hubs, and Aquarech).

## Key lessons and insights

- The development and variance of taxonomies: **Classification systems that categorize economic activities based on environmental sustainability are still in development, with no single universally accepted taxonomy, other taxonomies have also been developed in a humanitarian crisis context.**
- The European Union and CGAP have developed relevant taxonomies. **The EU's system focuses on helping investors identify genuinely sustainable activities, while CGAP's centers on the creation and delivery of climate-responsive financial products, classifying them based on their objectives and the services they offer.**
- Other interesting frameworks when analyzing climate responsive financial products are:
  - The Alliance for Financial Inclusion (AFI) which emphasizes the importance of inclusive and responsible financial policies. While not a traditional taxonomy, their research offers perspectives on how digital finance tools can be classified to support green initiatives and financial inclusivity.
  - CFI's green inclusive finance framework outlines how financial services can support low-income and vulnerable individuals in addressing climate change challenges.

(contd...)



## Key lessons and insights

- Agricultural index insurance has been shown to provide needed support in the event of a shock as well as to unlock investments for greater productivity and income. However, sustained adoption has been a challenge. **The University of California Davis has partnered with Bill & Melinda Gates Foundation and BFA Global** to deploy alternative financial instruments that can leverage the same index to fill some of the gaps left by insurance. The blend of these three indexed financial instruments makes it possible for small-scale farmers to dynamically manage their risk over time.



## The Climate Landscape Series Decks

- **Conceptual Frameworks for Climate Action:** Climate Justice, Digital Finance and Climate Finance Flows
- **Climate Finance Taxonomies:** Frameworks for the current landscape
- **Climate Change and Gender**
- **Climate Innovation:** Climate Smart Essential Services & The Opportunity for Philanthropy
- **Climate Resilience Insurance:** Learnings, Gaps, Opportunities
- **Inclusive Climate Finance:** G2P Programs
- **Building an Inclusive Voluntary Carbon Market for Resilient Communities**
- **Climate Finance:** Data and Data Platforms

# Thank you!

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