

Climate finance mobilization initiatives – Promoting climate adaptation in agriculture

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Commercial Agriculture for Smallholders and Agribusiness

CASA aims to drive global investment for inclusive climate-resilient agri-food systems that increase smallholder incomes. The programme makes the case for increased agribusiness investment by demonstrating the commercial and development potential of sourcing models involving empowered smallholder producers and by tackling the information and evidence gaps holding back investment.

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Acronyms

AAA	Adaptation of African Agriculture Initiative
ACT2025	Allied for Climate Transformation 2025
AIM4C	Agriculture Innovation Mission for Climate
APAN	Asia Pacific Adaptation Network
ARA	Adaptation Research Alliance
ASAP	Adaptation SME Accelerator Programme
B4ICA	Banking for Impact on Climate in Agriculture initiative
CASA	Commercial Agriculture for Smallholders and Agribusiness
CPI	Climate Policy Initiative
CSA	Climate smart agriculture
DFI	Development Finance Institute
FCDO	United Kingdom Foreign, Commonwealth, and Development Office
GARI	Global Adaptation and Resilience Initiative
GHG	Greenhouse gas
GIIN	Global Impact Investment Network
IPAM	International Platform on Adaptation Metrics
JRT	Just Rural Transition
LMICs	Low- and middle-income countries
MRV	Monitoring, reporting, and verification
NbS	Nature-based Solutions
SAFIN	Smallholder and Agri-SME Finance and Investment Network
SMEs	Small and medium-sized enterprises
TIFS	Transforming Innovation in Food Systems
UNEP-FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
WBCSD	World Business Council on Sustainable Development
WMB	We Mean Business coalition

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Executive summary

The Commercial Agriculture for Smallholders and Agribusiness (CASA) programme aims to drive global investment towards climate-resilient agri-food systems that increase smallholder farmers' incomes. CASA's research component has recently identified the challenges faced in mobilizing climate finance for agriculture, and particularly for climate adaptation, as well as the existence of a funding gap for small and medium-sized agriculture enterprises (agri-SMEs) of around \$106 billion (ISF Advisors, 2022). CASA is particularly interested in analysing the evolving landscape of initiatives that aim to mobilize public and private finance for climate adaptation and resilience in agriculture.

Overview

The aim of this report is to gain a better understanding of the landscape of climate finance initiatives, the means by which they aim to create change, the types of members who are engaged in them, and areas which may be under-served by such initiatives. The report identifies and analyses initiatives which support climate finance mobilization for climate adaptation in agriculture in low- and middle-income countries.

The report analyses and categorizes (by sector, climate action focus, geographic scope, and membership typology) a total of 51 initiatives from across the world that aim to mobilize climate finance. The report also introduces a typology for categorizing these initiatives, based on the primary means they use to mobilize action and investment.

The report covers the strategies used to encourage and facilitate engagement among members of different initiatives. It also provides an overview of the coverage of these initiatives, including their geographic and thematic focus, as well as the degree to which they address climate adaptation in agriculture. It offers recommendations to initiatives and their members on ways to enhance their impact and address key knowledge and action gaps.

Key findings

There is a vast and diverse array of initiatives that aim to tackle different pinch-points that hold back investments in climate adaptation and resilience, as well as nature-based solutions, in the agriculture sector in low- and middle-income countries. This study identified **a total of 1,700 organizations that are members of one or more of the 51 initiatives** covered in this report, with **132 of those organizations participating in three or more initiatives**.

Agriculture is the sole of focus of a third of all initiatives analysed and it is increasingly a priority for multi-sector initiatives. Public and private entities are increasingly willing to look for 'win-win' solutions for tackling climate mitigation and adaptation challenges in agriculture, and there is a **growing interest in regenerative agriculture practices**.

There is a paucity of initiatives that focus primarily on developing new means of scaling finance for climate adaptation in agriculture in low- and middle-income countries. This limits the capacity of the existing array of initiatives to attract enough investment from private companies and investors to scale climate finance.

The majority of initiatives are global in scope, with just four having a regional focus. This lack of a regional focus is also present in the membership base of these initiatives: **of those organizations participating in three or more initiatives, less than 7% represent the global South**. This translates into a lack of focus on the local nuances and specific contexts of countries that are highly vulnerable to climate change, with the more generic nature of global initiatives often failing to align with regional or national contexts and needs.

Knowledge-sharing and enabling-environment initiatives rely on the contributions of their members to drive action, share data, insights and good practice examples, and engage in governance of the initiative. While this expectation aims to help increase 'buy-

in' from member organizations, it might act as a deterrent to companies and commercial investors engaging, particularly if participation in these initiatives does not lead directly to new business opportunities.

Knowledge gaps

Table 1 sets out the main knowledge gaps identified by the analysis. These are topics on which future knowledge initiatives could focus in order to overcome barriers to increased private sector investment in climate adaptation in agriculture in low- and middle-income countries (LMICs).

Table 1: Summary of knowledge gaps

Knowledge gap	Description
Examples of good practice and case studies of success	Good practice examples of innovative financial mechanisms and partnerships, and case studies of business success, to demonstrate the viability and impact of such investments.
Metrics for adaptation outcomes resulting from investments	Common and high-quality metrics, methods, and monitoring, reporting, and verification (MRV) approaches for outcomes arising from adaptation and resilience actions and investments, as well as those arising from the implementation of nature-based solutions (NbS) and regenerative agriculture.
Investment data on climate-smart agri-businesses	Impact data and financial data on climate-smart agriculture technologies in LMICs are important for investment decision-making. Gathering and synthesizing this data was identified as a key knowledge need, with the aim being for initiative members to use this data to identify target businesses for investment.
Understanding nature-based solutions and regenerative agriculture	Agreed definitions and parameters regarding what NbS and regenerative agriculture are. There is a need for a scientific consensus on the long-term carbon sequestration potential of these approaches in agricultural contexts, and the opportunities for monetizing this.
Examples of effective policies for stimulating investment in climate adaptation in agriculture in low- and middle-income countries	A common 'roadmap' for transforming the agriculture sector in the context of meeting the 1.5°C maximum global warming target and sufficiently addressing the resilience and adaptation needs of agricultural producers and value chain businesses in LMICs.

Opportunities for action

Table 2 sets out the possible priorities for climate finance mobilization initiatives which could help to unlock new and increased private sector investment in climate adaptation and resilience in the agriculture sector in LMICs. This includes suggested research priorities for knowledge initiatives, to address some of the critical knowledge gaps outlined in Table 1.

Table 2: Summary of suggested action areas

Action area	Possible actions
How to support agri-SMEs in low- and middle-income countries to access public and private climate finance for adaptation and resilience	Work with high-potential agri-SMEs, public climate finance providers, and commercial investors to analyse bottlenecks and barriers to investment, as well as to develop innovative finance models.
Understanding the adaptation co-benefits of regenerative agriculture from a business perspective	Work with a small number of small and large agri-businesses that are interested in regenerative agriculture, and co-operatives of smallholder farmers already applying such practices, to analyse the likely benefits for each stakeholder, and the potential means of enhancing benefits and minimizing trade-offs.
Understanding the economic benefits and trade-offs of in-situ adaptation and resilience measures in existing supply chains	Work with multi-national businesses to produce an economic analysis of the short- and long-term costs, loss avoidance, profits, and supply chain resilience, including consolidation effects, as against the costs of shifting suppliers and locations under near-term and medium-term climate impact scenarios of production suitability niches.
Understanding the motivations and incentives for private sector and investor engagement in blended finance opportunities for adaptation and resilience in agriculture in low- and middle-income countries	Work with blended finance specialists and initiatives to explore incentives for investor engagement in such models in the agriculture sector. This would look to go beyond areas where there is already some interest and investment (e.g. insurance).
Country- and commodity-specific roadmaps for transformative change towards climate resilient production and value chains	Develop specific country- and commodity-level plans which both align with achieving a 1.5°C maximum global warming scenario and also aim to develop sufficient adaptive capacities among producers and value chain actors in relation to expected climate shocks and slow-onset hazards.
Understanding the impact of initiatives on their members: Does engagement in climate finance initiatives increase organizational commitments to climate adaptation action? Do initiatives strengthen the partnerships and networks of member organizations? Does engagement in initiatives improve the climate literacy of individuals and organizations?	Building on the findings of this study, conduct social research analysis of members of key climate finance initiatives, to delve deeper into the impacts such initiatives have on organizational engagement with, and commitment to, climate action, and on the understanding of climate change concepts, and to investigate their ability to foster and/or strengthen innovative partnerships among members. This would test the theory of change of the efficacy of these initiatives and would help to understand what works for different types of members, and why certain groups are often under-represented.

Recommendations for climate finance mobilization initiatives

Table 3 sets out a number of recommendations for each category of initiatives, to enhance their actions towards increasing the mobilization of finance for adaptation in agriculture in LMICs. These recommendations can also serve to inform where initiatives may wish to collaborate, to ensure more co-ordinated action.

Table 3: Summary of recommendations for initiatives

Recommendations	Relevant initiative types
Focus on engagement with companies and investors	<ul style="list-style-type: none"> • Investment • Action • Enabling environment
Link members to technical assistance	<ul style="list-style-type: none"> • Investment • Action
Focus on commercial viability	<ul style="list-style-type: none"> • Investment • Knowledge
Apply a localized approach to initiative-building	<ul style="list-style-type: none"> • All
Co-ordinate efforts on metrics	<ul style="list-style-type: none"> • Enabling environment
Create new initiatives targeted to specific action areas	<ul style="list-style-type: none"> • All
Track the impact of initiatives	<ul style="list-style-type: none"> • All

1. Introduction

The CASA Programme aims to drive global investment towards climate-resilient agri-food systems that increase smallholder farmers' incomes. CASA collaborates with a broad range of investors and supports stakeholders to identify and address evidence needs to make the case for increased investment in smallholder agriculture, climate adaptation, and nature-based solutions. CASA promotes a more enabling environment for climate investments through hosting events, generating and collating data, and conducting climate finance analyses. CASA's research component has recently identified the challenges faced in mobilizing climate finance for agriculture, particularly for climate adaptation.

Dozens of initiatives have been launched in recent years to respond to the challenges and opportunities presented by climate change, and to meet the ambitions and targets set out in the Paris Agreement, as well as the higher-ambition commitments made by governments and businesses at COP26. Sustainable climate finance is one of the goals of the Paris Agreement, which calls for *“making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”* Mobilizing climate finance from private sources is an ambition of a number of global agreements and of the major climate finance bodies, including the Green Climate Fund.

Increasingly, businesses, investors, banks, and fund managers have recognized not only the risks posed by climate change to their assets and long-term growth potential, but also the opportunities presented by transitions towards low-carbon and climate-resilient pathways across multiple sectors.

Yet while some sectors – such as energy, transport, and infrastructure – have been able to mobilize substantial volumes of private sector finance, mainly motivated by the urge to meet net-zero targets, the agriculture sector has lagged behind. This is particularly the case for agriculture outside of high-income countries, with the additional perceived risks and complexities of investing in low- and middle-income countries posing a barrier to investment.

The vast majority of both public and private finance has been channelled towards greenhouse gas (GHG) mitigation efforts, with comparatively little finance aimed at adaptation and only a portion of adaptation funding targeted to the agriculture sector (Climate Policy Initiative, 2021). In addition, there exists a funding gap for agri-SMEs of around \$106 billion (ISF Advisors, 2022). Estimates of the financial resources needed to transform the food system by 2030 to meet food security and climate goals range from an additional \$15-350 billion per year (IFPRI, 2022).

This report explores the landscape of initiatives¹ that are designed to support the mobilization of public and private finance for climate adaptation and resilience in agriculture. The aim of the study is to gain a better understanding of the landscape of initiatives, the means by which they aim to create change, the types of members engaged in them, and the areas which may be under-served by such initiatives. The report covers the strategies used to encourage and facilitate engagement among members, and provides an overview of the coverage of these initiatives, including the degree to which they address adaptation in agriculture.

The report covers initiatives specific to the agriculture sector, and multi-sector initiatives which include agriculture. It also covers initiatives focused on adaptation, and initiatives which aim to address both adaptation and mitigation. In addition, the study explores initiatives that are promoting investments in NbS, in the context of adaptation in agriculture.

Moreover, the report provides an understanding of where gaps remain in regard to addressing these issues, including the data needed to help mobilize finance, the knowledge products required to inform investors, the engagement activities which might bring in new partners and spark new collaborations, and the geographies that are (under-) served by

¹ This report uses the term 'initiatives' to cover networks, coalitions, consortiums, associations, and alliances.

existing initiatives. In doing so, the report indicates where and how stakeholders can focus their efforts in the future.

The database of initiatives (see Annex A) may also serve as a reference point for businesses and organizations wishing to engage in climate initiatives to know what is available, where they may find the most relevant information, and with whom they can collaborate.

2. Methodology

The report identifies and analyses a total of 51 initiatives which support climate finance mobilization for adaptation in agriculture in low- and middle-income countries. The identification of these initiatives was based on the following selection criteria:

- initiatives known to the authors
- initiatives promoted by the United Nations Framework Convention on Climate Change (UNFCCC)
- initiatives funded by the UK Government
- initiatives identified through a snowballing process of identification (based on interviewees' knowledge of and engagement in various initiatives)
- initiatives identified through secondary research.

The selection of initiatives was based on the following criteria:

- includes agriculture as an area of focus
- includes climate action as a stated aim of its work
- has publicly available information on its operations and membership
- is currently active
- focuses on LMICs
- supports increased climate finance mobilisation as a stated aim.

The process applied to identify and select initiatives aimed to be as comprehensive as possible. However, due to the constantly evolving nature of the landscape of climate finance mobilization initiatives, this report acknowledges the likely existence of initiatives that might not have been captured in the analysis. Some other relevant initiatives, such as Regen10, have not been included in the study due to the lack of publicly available information beyond an initial press release. A full list of the initiatives included in the analysis is available in Annex A. In addition, a number of initiatives with related areas of focus and action were identified through this process. While they did not meet the above criteria for inclusion, a summary of them is provided for reference in Annex C.

The report also includes the results of primary research from semi-structured interviews. 15 initiative leads were initially prioritized for interviews (three per initiative type), with the aim of covering a variety of different modes of working, different composition of members, different areas of focus, and the different typologies set out in Table 4.

A total of nine initiative leads were ultimately interviewed, due to issues with availability. The aim of the interviews was to gain a deeper understanding of the initiatives' origins, motivations, ways of working, stakeholder engagement, priorities, and plans. The interviews also aimed to gain a better understanding of the main barriers to increasing climate finance for adaptation in agriculture, as well as to identify important knowledge gaps. Insights from the interviews are used to complement the portfolio analysis. The list of initiative leads who were interviewed can be found in Annex B.

The initiatives have been categorized by their sectoral focus, their climate action focus (i.e. adaptation, mitigation, nature-based solutions, or combinations of those), their geographic scope, and the types of organizations they have as members. Regarding the scope of initiatives covered, this study concentrated on those that are most relevant to mobilizing climate finance for climate adaptation in agriculture in low- and middle-income countries.

However, 57% of the initiatives have a multi-sectoral scope, and 37% cover a combination of adaptation, mitigation, and nature-positive outcomes.

Further to this categorization, the authors developed a typology that can be used to more meaningfully categorize the initiatives based on the primary means by which they aim to mobilize action and investment, while also recognizing that several initiatives follow more than one approach. The typology is outlined in Table 4.

Table 4: Typology of initiatives

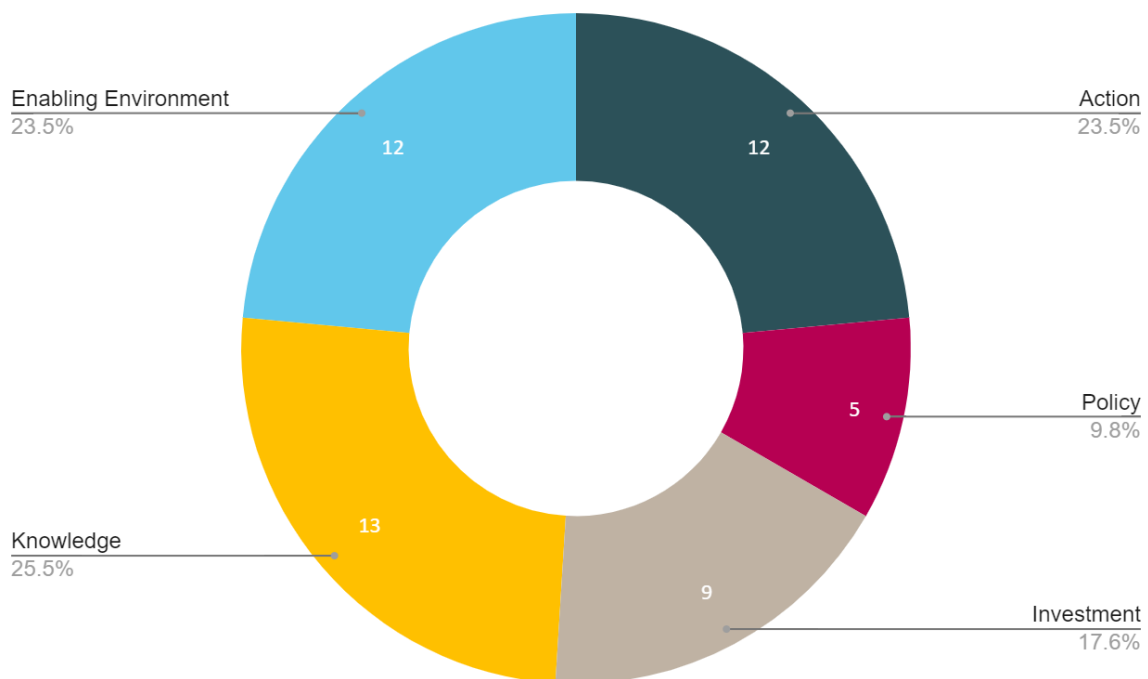
Initiative type	Description
Investment	<ul style="list-style-type: none"> ● Primary aim: to mobilize finance from public, private, or other sources for climate adaptation in agriculture. ● Secondary aim: to develop new approaches and financial models for investment.
Policy	<ul style="list-style-type: none"> ● Primary aim: to influence national and international policies and strategies for climate adaptation in agriculture and/or for mobilizing climate finance for adaptation and/or agriculture. ● Secondary aim: to lobby national governments and intergovernmental bodies on specific issues related to adaptation finance (particularly in agriculture), including target-setting and ambition.
Knowledge	<ul style="list-style-type: none"> ● Primary aim: to create, synthesize, and share technical, policy, and economic evidence on investment opportunities (particularly for non-public investors) on adaptation in agriculture. ● Secondary aim: to develop reports, to manage information platforms, host webinars, collate case studies, etc.
Action	<ul style="list-style-type: none"> ● Primary aim: to catalyse action on climate adaptation in agriculture and to undertake specific projects. This may include crowding in different stakeholders on specific targeted actions, actively seeking mixed sources of funding for priority actions, etc. ● Secondary aim: to build support among members/stakeholders for specific actions related to climate adaptation in agriculture, and in doing so to increase the likelihood that they will invest in those adaptation actions.
Enabling environment	<ul style="list-style-type: none"> ● Primary aim: to address key technical, legal, and regulatory aspects which may help increase investment in adaptation in agriculture. These include issues around adaptation metrics, financial standards, risk measurement, reporting mechanisms and guidelines, and research methods. ● Secondary aim: to improve the quality of climate finance and the ability to objectively measure the impact of investments.

3. Initiative landscape profile

Initiative typologies

Of the 51 initiatives included, 30 are focused on activities which address supporting functions to mobilize climate finance, including the following: policy advocacy; improvements in metrics, frameworks, and standards (enabling environment initiatives); and knowledge management. This reflects the perceived need – as identified by the initiative representatives who were interviewed and the websites of other initiatives – for increased sharing of emerging successful practices in climate finance mobilization and profitable investment opportunities, and a willingness among initiative members to seek out common approaches to complex issues, such as standardized risk measurement frameworks, adaptation outcome metrics, and financial standards for blended finance mechanisms.

Figure 1: Distribution of initiatives by type



Enabling environment

The 12 enabling environment initiatives aim to address technical challenges, with the intention that this can address some of the critical barriers to increased investment, including in adaptation in agriculture. These include:

- The Banking on Impact on Climate in Agriculture initiative, which aims to “align consistent methods, targets, harmonized tools and guidance for finance institutions to assess and disclose on the alignment of their portfolios with various climate scenarios”.
- The International Platform on Adaptation Metrics (IPAM), which aims to “become an international reference platform for adaptation metrics, across scales and sectors, and to co-develop metrics and tools”.
- The Global Resilience Index Initiative, which aims to provide reference data on climate and natural hazard risks through an open access platform.
- The Adaptation and Resilience Investors Collaborative, which aims to develop “a common approach to identifying eligible investments and reporting on impact and progress”.

The Adaptation of African Agriculture Initiative has taken a different approach: it aims to address a technical knowledge gap on how governments can facilitate private investment flows by developing a range of national CSA investment plans to help coalesce investors around prioritized areas of intervention in seven African countries.

Enabling environment initiatives rely on the contribution of their members to share data, insights, and good practice examples. Some expect all members to engage in specific working groups or steering committees, or to attend events as a condition of membership. For private sector companies and investors, this can be a burdensome expectation, particularly if the engagement in such initiatives does not directly lead to new business opportunities.

The lack of common metrics related to adaptation and resilience outcomes and the impacts of NbS and regenerative agriculture practices, as well as the lack of common MRV processes, is one of the key knowledge gaps among these initiatives. However, there is limited co-ordination of the processes for developing those common metrics, which has led to a duplication of efforts and potentially differing metrics being developed.

Knowledge

The 13 knowledge initiatives generally aim to bring members and other stakeholders together to learn from one another in workshops and webinars, and through the sharing of data, documents, and case studies. The convening role of these initiatives is also used to enhance the climate literacy of member organizations, by communicating climate concepts, challenges, and opportunities in ways which are appropriate for the particular membership base of each initiative. For example:

- The Global Adaptation and Resilience Investment initiative (GARI), which is comprised primarily of businesses, investors, banks, and insurance providers, has a mission to *“provide education, research and resources to build awareness and capacity in the private sector”* to increase investment in resilience
- Nature4Climate’s work with its public sector and NGO members focuses on *“identifying successes around the world, facilitating dialogue around nature-based solutions, sharing scientific knowledge ... and creative treatments of the subject matter”*.

Of the 13 knowledge initiatives, seven create their own resources and commission research to synthesize and analyse existing data and case studies, while the other six primarily share content developed by initiative members or third parties. Of those that develop their own resources, examples include the following:

- The Commission on Sustainable Agricultural Intensification (CoSAI) commissioned several large-scale research papers to identify what needs to change to ensure investments support environmental sustainability and benefit the poorest people.
- The Global Alliance for Climate Smart Agriculture (GACSA) worked with more than 30 of its members to develop a series of technical briefs and a comprehensive compendium on CSA case studies.
- Convergence, an initiative dedicated to advancing the role and impact of blended finance approaches, worked in collaboration with its members to identify key knowledge gaps in areas such as food systems financing, and developed reports setting out new insights on these priority issues, in some cases in collaboration with its members. Convergence complements this with a knowledge portal that showcases a curated list of other relevant publications from third-party sources.

Much of the information sharing among knowledge initiatives centres around policy options and the sharing of case studies of business investments. Yet it is exactly in these areas where there is a paucity of strong examples, according to the interviewees for this study, and interviewees in other studies CASA has conducted (Casey *et al.*, 2021).

There appears to be a large degree of overlap among initiative members: 32 organizations are members of multiple knowledge initiatives. Furthermore, different knowledge initiatives use the same types of approaches to mobilize climate finance, focusing on knowledge sharing through online portals and webinars, and highlighting case studies from members and third parties, as the primary means to drive engagement. Such activities are also utilized by other types of initiatives too.

To some degree, it is more straightforward to co-ordinate and engage members in knowledge activities, and these activities often lie within the standard areas of work of the lead organizations. Yet there remains a paucity of more technical, targeted, and innovative actions to drive and develop new means of scaling finance for adaptation in agriculture, and in particular there is a lack of focus on the local nuances and specific contexts of countries that are highly vulnerable to climate change, with the more generic nature of global initiatives failing to align with regional or national contexts.

Knowledge initiatives are predicated on the assumption that the lack of knowledge, or lack of a means of sharing knowledge, is the critical barrier holding back investment. Yet many initiatives share some of the same resources (such as papers from the Global Centre on Adaptation and Climate Policy Initiative), and strong case studies are few and far between, in part due to the historic lack of attention, support, and investment given to this issue, as was also highlighted in two interviews.

This presents a 'catch 22' scenario, where knowledge initiatives are created and develop knowledge platforms, but struggle to find sufficient new knowledge to share with members, as was also highlighted in three interviews. Moreover, information alone is unlikely to shift the dial significantly in order to increase private investment in agricultural adaptation.

Investment

Eight of the initiatives focus directly on investment mobilization. Only four initiatives directly address the nexus of mobilizing private sector engagement in adaptation and resilience in agriculture in LMICs. The other 47 initiatives cover only one or two of those aspects, or have a broader approach covering other sectors, climate action areas, or geographies. However, these four initiatives lack important areas of action that are likely to be needed to support and stimulate increased climate finance, including directly linking large businesses and investors with agri-SMEs, CSA technology providers, and farmers to jointly develop innovative new approaches or to increase the pipeline of investable enterprises that support climate resilience and adaptation outcomes in agriculture.

Only four initiatives directly aim to mobilize climate finance for adaptation in agriculture:

- Grow Asia explicitly aims to mobilize investment for climate adaptation in agriculture, focusing on the Association of Southeast Asian Nations (ASEAN) region. Grow Asia does this by brokering both commercial and non-profit partnerships, sharing best practice, hosting events and platforms that support pre-competitive dialogue, and seeking to aggregate public and private climate adaptation-linked investments for smallholder agriculture. It is one of only three regionally-focused initiatives in the whole portfolio, and it operates through a 'hub and spoke' approach, with local organizations operating nationally in its six focus countries, through 44 working groups. This highly localized and collaborative approach means Grow Asia is able to ensure that the content it generates and the activities it undertakes are highly relevant to each context.
- The Just Rural Transition (JRT) Agri-SME Digital Finance Platform works in collaboration with the investor community to ensure that private sector investments support the

transition to sustainable, resilient agri-food systems. It works to unite the private sector across the entire supply chain to enable agri-SMEs to access finance and drive more investment in resilience, particularly targeting post-harvest losses.² An interview with the initiative lead highlighted that this work has included bespoke training for several SMEs and larger companies, and a deep-dive into specific value chains where there was significant investor interest. This included identifying opportunities for inclusive innovation, and capacity building for local SMEs. However, the interviewee noted that the work was focused more on food systems transformation, than on climate adaptation specifically.

- The Champions Group on Adaptation Finance is exclusively focused on mobilizing public funding for adaptation across a range of sectors, including agriculture, with the aim of doubling adaptation finance by 2025, from approximately \$4.8 billion in 2019. The leading group of 11 high-income countries which form the initiative's membership expect that by showing leadership in their increased commitments to adaptation finance they will encourage other high-income countries, multilateral development banks, and the private sector to match this ambition.
- The Finance for Biodiversity Pledge initiative bridges the policy and investment typologies. It aims to mobilize up to \$700 billion per year in finance to protect and enhance biodiversity through nature-based solutions. It does this by demonstrating the value of nature to businesses and governments, and by advocating for the removal of \$500 billion in annual subsidies that, it claims, lead to environmental harm.

Five initiatives have a core area of work focusing on developing innovative (concessional) financial models and partnerships for action, such as blended finance mechanisms involving public-private partnerships.

No initiative has been identified as developing a short-term business case for investors and private companies to invest in adaptation in agricultural supply chains. This is of particular importance in order to incentivize investments in adaptation, given the geographic fungibility of many value chains, which incentivizes investors and private companies to relocate instead of investing in adaptation if supply is compromised by changes in the climate.

Policy

The five initiatives that primarily focus on influencing policy aim to leverage new types of partnerships to inform policymaking processes, while also demonstrating the increased scale of action which could be taken if policy changes were enacted and implemented. These policy initiatives work to create a more attractive environment for investment from private sources, and to ensure that public funds are directed towards the most effective solutions to climate change – and for food systems transformation more broadly. These include:

- The Business for Nature initiative, which brings together leading businesses, NGOs, and think-tanks to highlight the potential for transformation businesses could achieve if supportive policies were in place, and which calls on governments to adopt policies that can halt and reverse nature loss this decade.
- The Allied for Climate Transformation (ACT2025) initiative, a group of public and not-for-profit organizations convened by the World Resources Institute that aims to promote thought leaders from six regions in the global South to bring the voices of climate-vulnerable communities into multilateral policy discussions and to provide recommendations on global climate policies that would facilitate a greater flow of climate finance for smaller organizations, to support locally-led adaptation.

² The initiative representative stated in an interview for this report that there are over 230 users of the platform, but the details of these users are not publicly available.

- The JRT initiative, which aims to inform government policy and business practices in order to support an equitable shift to more climate-resilient food systems. Its Policy Action Agenda sets out pathways and actions that countries can take to repurpose public policies and subsidies in the food and agriculture sector, including increased investment in CSA technology transfer.
- The Good Food Finance Network, which brings together a group of 17 public, private, and NGO members to help identify “*proven and scalable financial instruments and business strategies*” for food systems transformation, including increased resilience to climate change shocks and stresses. The Network shares policy ideas to support emerging innovations, and to encourage increased ambition from national governments. This includes action on realigning public procurement policies, repurposing subsidies, and altering international debt agreements to include sustainability outcomes.
- The C40 Initiative’s Food Systems Network, which promotes regenerative agriculture practices and minimization of food waste. As cities are the primary consumers of food, the initiative supports municipal governments to implement policies which reduce food waste by 50% and respond to biodiversity loss and climate shocks.

Other initiatives classed as action and enabling environment initiatives also include elements of work on policy change, such as Alliances for Climate Action, which puts pressure on governments to increase the speed and scale of decarbonization actions, and the Coalition for Climate Resilient Investment, which aims to inform policymakers on effective ways to measure and manage physical climate risks. However, these activities were not deemed to be the primary focus of those initiatives.

Action

Of the 13 initiatives primarily focus on action, nine bring together a mix of public, private, and NGO stakeholders to collaboratively work together to create new projects, develop financing models, and foster innovative partnerships. This highlights a willingness among initiative members to engage with different types of organizations to find creative ways to mobilize climate finance for adaptation, including in agriculture. These include:

- The Agricultural Innovation Mission for Climate (AIM4C) initiative, which aims to unite a wide spectrum of partners around a core set of ‘innovation sprints’ – targeted activities which aim to leverage the breadth of skills and resources across different types of organizations, with clear financing pledges from public and private sources.
- The Global Action Agenda to Advance Nature-Positive Innovation, which brings together experts from a variety of disciplines and sectors to jointly identify areas of innovation in NbS in agriculture. It encourages members to commit to four priority actions upon joining, and has specific expectations for different types of members.
- The 100 Million Farmers initiative, led by the World Economic Forum, which aims to develop national and regional ‘lighthouse projects’ led by public-private coalitions that should accelerate transitions towards net-zero, nature-positive, and resilient agriculture systems.

The We Mean Business Coalition (WMB) is an initiative that brings together business leaders to champion climate action. As outlined in an interview with the initiative’s staff, it has moved from its initial role of policy advocacy (advocating for higher ambition in climate negotiations among progressive business leaders), to action-oriented engagements with climate-conscious businesses, which in the agriculture and land use sector focuses on the widescale adoption of regenerative agriculture practices.

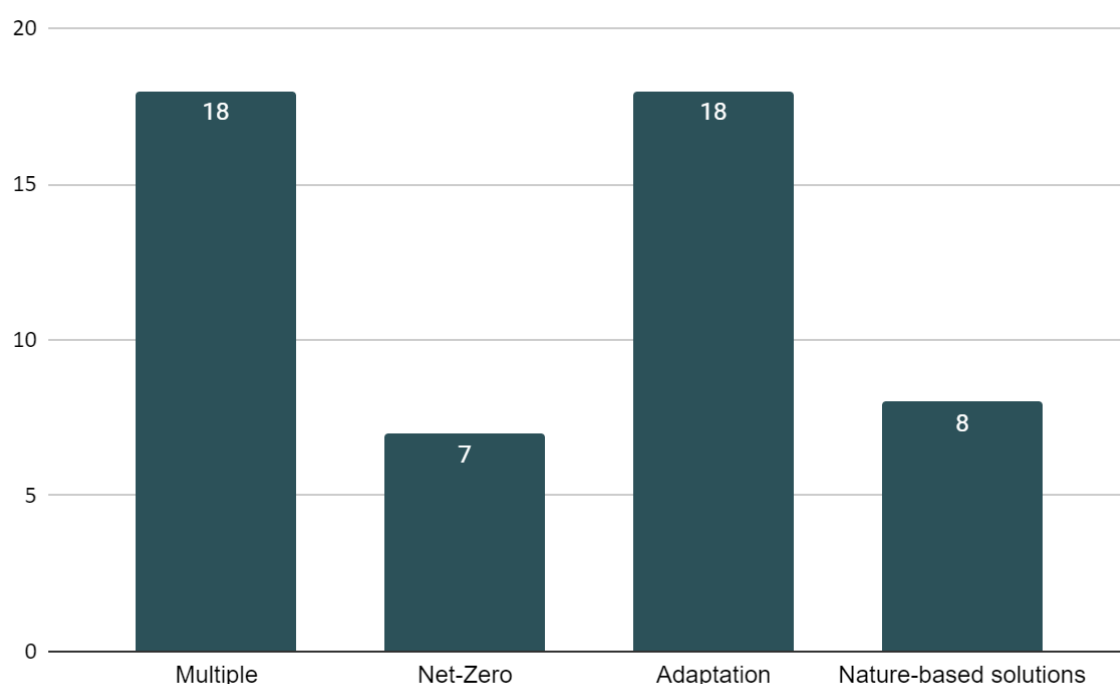
This is a new area for the initiative and, unlike its other areas of action, has been introduced by the initiative itself to its members, rather than the business members actively calling for it.

Few of the initiative's members are engaged in upstream agricultural production, most of those involved in food systems are at the downstream (retail) end.

WMB sees the potential in engaging businesses around the synergies between adaptation outcomes from mitigation-focused activities. Net-zero and mitigation activities remain its focus as an initiative, as well as the main incentive for businesses, but businesses are increasingly interested in identifying how to achieve other positive co-benefits from such work, particularly adaptation outcomes. The WMB representative noted that their members are concerned about the predictability of supply chains, therefore investing in measures which can address resilience to shocks and supply chain disruption is important to them.

Climate focus

Figure 2: Distribution of initiatives by climate focus



Adaptation

33% of initiatives focus on adaptation as the primary area of climate action, of which five initiatives focus primarily on adaptation in the agriculture sector. Eight adaptation initiatives include members from the private sector. Nevertheless, the business interest in, and successful examples of, transformative adaptation and resilience technologies and practices in agriculture remains limited.

Only two adaptation-focused initiatives are categorized as investment initiatives (Grow Asia, and Champions Group on Adaptation Finance), with a further three categorized as action initiatives (the Adaptation SME Accelerator Project, Race to Resilience, and the Adaptation Action Coalition). Given that the Champions Group on Adaptation Finance focuses only on national governments, and that Grow Asia only works in one region and has only recently launched its work on adaptation and resilience, there is a paucity of initiatives which aim to specifically address the specific 'niche' of mobilizing private climate finance for adaptation in agriculture in low-income countries.

Only one initiative, WMB, was found to be actively trying to link the scientific findings of the Intergovernmental Panel on Climate Change (IPCC) with specific pathway opportunities for adaptation and mitigation action in the agriculture sector. It will be increasingly difficult to

convince purpose-led investors and large agri-businesses to invest in adaptation and NbS in agriculture without a clear articulation of how pathways and technologies can help align action with the adaptation and mitigation needs of the sector.

Net-zero

Seven of the initiatives focus on supporting members to achieve net-zero targets and on raising ambition, both within the initiatives' memberships and among external peers, to increase the speed and scale of decarbonization actions. These include:

- The Tropical Forest Alliance, which aims to work with members to eliminate net deforestation from four commodity value chains (palm oil, beef, soy, and paper).
- The C40 Initiative's Food Systems Network, which promotes regenerative agriculture practices and the minimization of food waste.

The seven net-zero initiatives also include action on other areas of food systems transformation, including supporting an improved understanding of climate risks to assets and portfolios. For example, the Banking on Impact for Climate in Agriculture (B4ICA) initiative, which aims to reduce emissions from the agriculture sector globally, convenes a coalition of banks, insurance providers, technical risk experts, and agri-businesses to develop consistent tools and methodologies for the disclosure of climate-related risks.

Companies and investors have a much greater interest in mitigation measures to achieve corporate net-zero emissions targets, compared to climate adaptation actions. WMB highlighted that its members, typically large and often multinational businesses, are primarily concerned with meeting corporate net-zero targets and raising ambition on mitigation action. Therefore, WMB's route to engagement with such companies on both adaptation as a theme, and agriculture as a sector, is through practices which aim to deliver adaptation and mitigation co-benefits, such as regenerative agriculture, highlighting the mitigation benefits to businesses while trying to also measure and capture adaptation outcomes.

Three initiative leads noted during interviews that the heterogeneity of agriculture and land use present challenges in determining common GHG emissions reduction 'pathways', as compared to technology-focused sectors, such as energy, transport, and manufacturing.

Whether net-zero initiatives are able to significantly shift investment practices among members remains to be proven. For example, just 6% of financial institutions that have joined the Glasgow Financial Alliance for Net Zero (GFANZ) initiative have actually made commitments to tackle deforestation in their portfolios, and just nine large companies globally have made demonstrable progress in tackling nature-destructive practices in their supply chains (UNFCCC, 2022).

Nature-based solutions

Eight of the initiatives focus on NbS and nature-positive investments. These include:

- The Nature4Climate initiative, which works to develop partnerships between governments, civil society, businesses, and investors to drive increased action and investment in 'natural climate solutions'.
- The Transforming Investing in Food Systems (TIFS) initiative, which brings together leading philanthropic organizations to use their funding to leverage public and private sector finance for nature-focused actions to increase food systems resilience.

While the term "nature-based solutions" is relatively new, it appears that there is greater interest and momentum in financing nature-based solutions for mitigation, as compared to adaptation or measures which would achieve adaptation and mitigation co-benefits. In many cases this amounts mostly to better managed afforestation and reforestation, with limited evidence of NbS being implemented in smallholder agriculture settings. The focus of six of

the NbS initiatives is on GHG mitigation and carbon offsetting, rather than on adaptation to climate impacts in agriculture.

Forestry and reforestation are the primary areas of interest for the NbS initiatives. For example, the Nature Climate Solutions Investment Accelerator aims to increase investment from member companies in 'Natural Climate Solutions Credits', a means of accounting for both GHG mitigation and "nature-enhancing" outcomes, by 2025. No obvious case studies on NbS in agriculture could be identified across those initiatives.

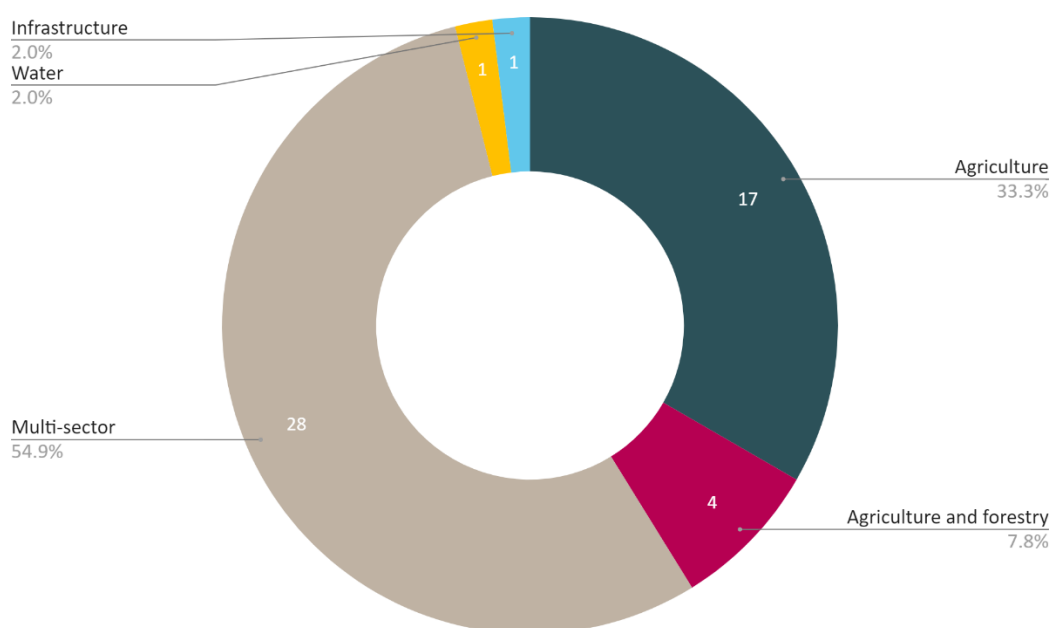
The Natural Capital Investment Alliance has seen pledges from 15 companies and investment managers to channel new investments towards natural capital-aligned themes and to re-align some existing portfolios. However, what counts as a "natural capital investment" is not clearly defined, and many pledges relate only to afforestation activities.

Often, the language used in discussing climate action in agriculture does not align with the language used by private companies and investors. An interview with a representative from the lead organization of an initiative with primarily private sector members noted that it is difficult to develop strong engagement from companies and investors when using more technical terms, while a representative from another private sector initiative highlighted that there is a need for increased education on climate change concepts, risks, and issues among investors and banks. In addition, research led by CASA has found that most multi-national companies do not use the term "nature-based solutions" in their operations and generally do not understand what it means in practice (Casey *et al.*, 2021).

Sector focus

As commercially viable models for investment and action in sectors such as energy and transport become mainstream and are normalized in economies worldwide, attention is now turning to those more difficult sectors which to date have been under-served, under-supported, and under-invested in, particularly agriculture. Agriculture features as a priority sector in a growing number of multi-sector initiatives that also cover a wide range of other sectors, such as water, infrastructure, and energy. The majority of the initiatives (57%) cover multiple sectors and agriculture features to varying degrees within those. Agriculture, in combination with agriculture and forestry, is the focus sector for 39% of the initiatives. The remaining 4% of initiatives focus on other related sectors – infrastructure and water.

Figure 3: Distribution of initiatives by sector focus



Multi-sector

Within the multi-sector category of initiatives there is a wide range of approaches and levels of focus on agriculture, including:

- The Green Finance Platform, which has a section on its knowledge portal on agriculture, which shares reports produced by members and third parties. However, this initiative lacks targeted action and engagement activities in the sector.
- The Global Impact Investing Network (GIIN), which has a workstream on climate finance, one component of which focuses on the agriculture sector. This includes the launch of tools and publications on measuring the impact of investments in the sector on adaptation and mitigation.
- The International Platform on Adaptation Metrics (IPAM) which covers a range of sectors, and which will launch a workstream on agriculture later in 2022.
- The Glasgow Breakthrough Agenda, which includes CSA as one of its core thematic sectors of action to drive innovation for resilient, sustainable agriculture, but mostly in the context of reducing the agriculture's global contribution to GHG emissions and its role as the main driver of deforestation and biodiversity loss.

Agriculture, and agriculture and forestry

Among the 20 agriculture, and agriculture and forestry, initiatives, 13 cover all areas of climate action, reflecting the unique nature of agriculture as both one of the largest GHG emitting sectors globally, as well as being one of the most vulnerable to climate impacts. However, the lack of an explicit focus on redressing the balance in climate adaptation finance is evident – there are few agriculture initiatives that focus primarily on adaptation.

Interviews with representatives of two private sector initiatives, GARI and WMB, revealed that agriculture is a sector that remains at the fringes of the initiative members' work, although there is increasing interest and action in these areas. The representatives of the two initiatives noted that while the physical risks from climate change are well recognized by investors and multinational companies, understanding the relationship between physical risks in agriculture, investment value, and business continuity remains challenging. Investments in adaptation in agriculture are often perceived to be longer-term with limited returns on investment.

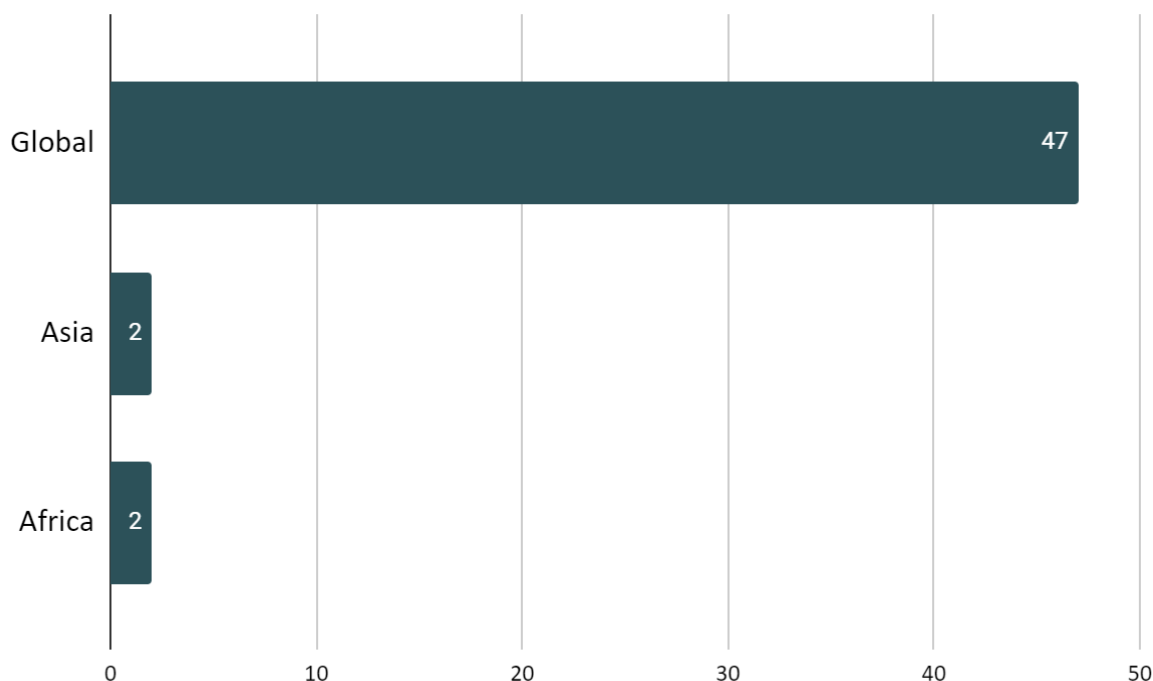
The representative from GARI highlighted that its members are looking for investment opportunities with competitive returns on investment, and have not yet identified examples of truly profitable opportunities in the agriculture sector, and that such investments in low-income country contexts would further weaken the business case for such investments. They highlighted that while blended finance and risk-sharing mechanisms can be helpful to address some of these barriers, companies would still likely seek opportunities in sectors with clearer adaptation and resilience investment propositions, such as energy, infrastructure, and transport, which may have a greater impact on physical risks to material assets within their existing investment portfolios.

Five of the 20 agriculture initiatives are categorized as action initiatives. For example, the Global Action Agenda to Advance Nature-Positive Innovation initiative aims to shift at least a third of all agriculture research and innovation investments towards nature-positive, climate-resilient solutions across food systems, and thereby spur greater innovation that may lead to more promising investment opportunities for climate adaptation products and services in the sector. Knowledge sharing is also a core part of the action-focused agriculture initiatives, such as AIM4C, which has invited organizations to join the initiative as knowledge partners and which aims to hold webinars, share resources, and provide technical insights to its "innovation sprint" implementers.

Geographic focus

Only four of the 51 initiatives have a specific region on which they focus. The remaining 47 initiatives have global coverage, or focus on LMICs. Some 'global' initiatives have region-specific activities that focus on locally-relevant issues and contexts. For example, the Adaptation Research Alliance (ARA) runs periodic regional workshops with its members in the Americas, Africa, and Asia, respectively.

Figure 4: Distribution of initiatives by geographic focus



Asia

The Asia Pacific Adaptation Network (APAN) is primarily a knowledge-sharing network, providing technical insights from local and international members and third parties on effective means of enhancing adaptation to climate change across a range of sectors in the region. It does have a dedicated climate finance action track, although there has only been sporadic work in this area, with just one event at the Gobeshona Conference in 2022, and prior to that nothing since 2018.

Grow Asia is an agriculture investment-focused initiative that aims to bring together stakeholders from across the continent to drive innovation in food systems and increase commitments to “responsible agriculture investing”. Grow Asia has included elements of climate resilience considerations since its inception, but has recently launched a new Flagship workstream focusing explicitly on climate change adaptation and resilience, recognizing the centrality of these issues to growth of the agriculture markets in the region. This new workstream includes action to promote knowledge and information, support capacity building for investors, and designing new forms of blended finance.

Africa

Aceli Africa is a blended finance investment initiative that aims to develop sustainable market incentives to increase investment in agri-SMEs in East Africa to increase the uptake of CSA practices and technologies. It aims to mobilize up to \$700 million by 2024, through the use of first-loss guarantees, \$40 million in bonus payment incentives, and a \$10 million technical assistance facility. It is working with more than 30 public and private finance

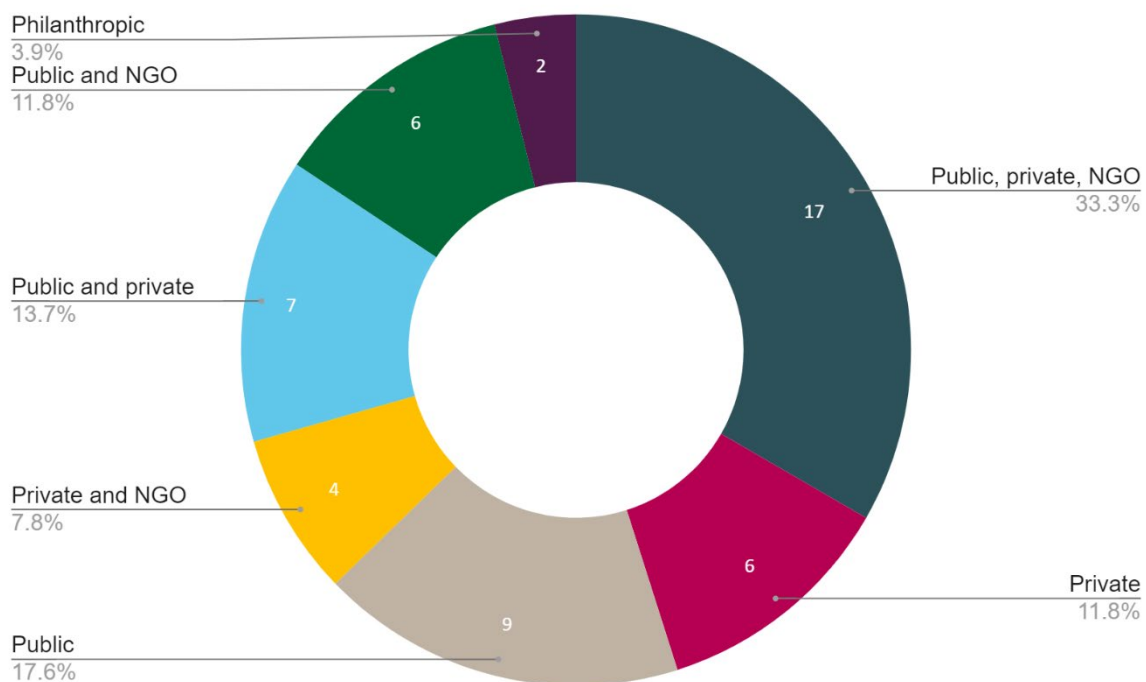
providers and aims to address the information asymmetry between lenders and agri-SME clients and demonstrate the financial viability of financing sustainable agricultural systems.

Finally, the Adaptation of African Agriculture initiative (AAA) aims to address barriers to investment in agricultural adaptation on the continent through a three-pronged approach: providing CSA investment plans for several member countries, engaging with IPAM to develop common metrics for measuring finance-relevant adaptation outcomes, and supporting governments to access public climate finance through a 'readiness' programme. However, in regard to AAA's aim to "*Facilitate access to investors, development partners, donors or funders for project initiators on the adaptation of African agriculture to climate change*", it is unclear what actions have been taken to achieve this so far, based on available information.

Types of members engaged in initiatives

The membership base varies greatly across the initiatives analysed, ranging from those that only have private actors as their members to those that bring together private, public, and non-governmental organizations (NGOs). Two-thirds of initiatives include private sector members, of which 14 have a focus on agriculture, or agriculture and forestry. Approximately half of those which include private sector members (18 initiatives) are also led or co-led by private sector organizations.

Figure 5: Distribution of initiatives by membership type



Nine initiatives have commercial investment members engaged. These include the Climate Policy Initiative's Climate-Smart Lending Platform, which aims to leverage anchor equity investments from philanthropic and public funds to crowd-in private finance through the provision of smallholder-focused lending products, while the Convergence blended finance initiative has commissioned and produced a range of studies on effective blended finance mechanisms in the smallholder agriculture sector, including insights on climate finance. These initiatives may be able to better attract commercial investors due to their specific aims and activities focusing on developing new approaches to blended public-private finance and investment models.

Only three of the 51 initiatives directly engage with agri-SMEs. Agri-SMEs are identified as a target group by many initiatives, and as organizations in need of climate finance. Much work undertaken by the initiatives is done *about* agri-SMEs, but very little is done *with* them.

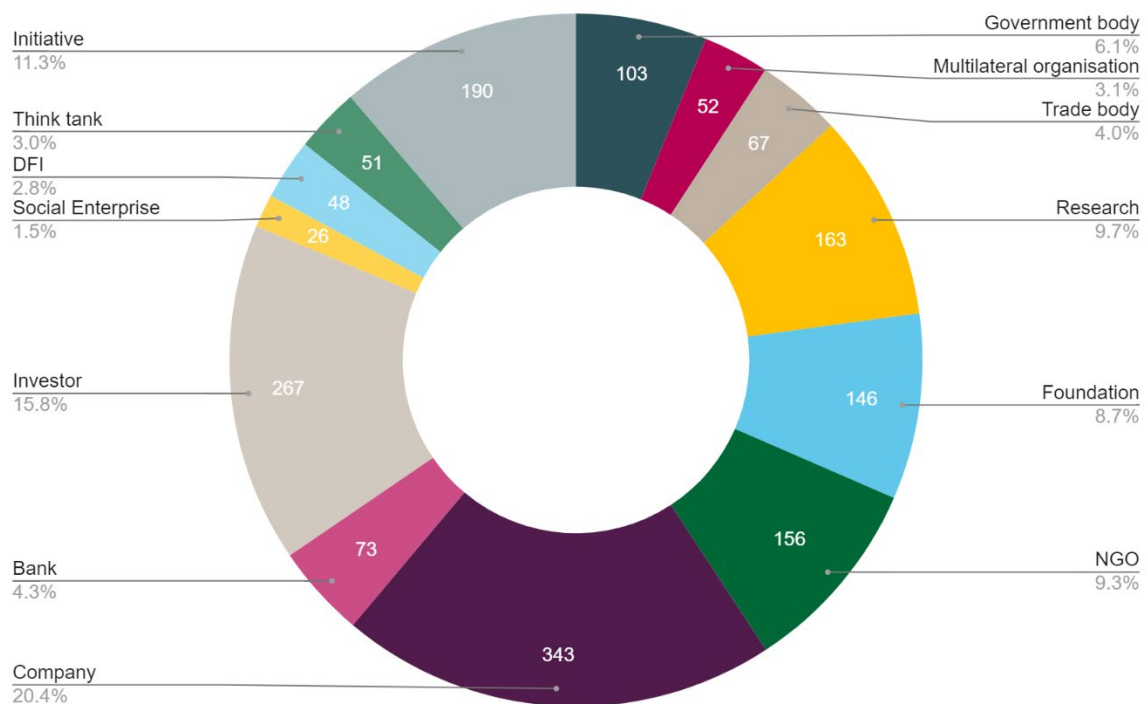
Interviewees from JRT noted that while their current focus is on mobilizing public finance, they are looking at ways of bringing more private sector investors into the fold. They highlighted that through their engagements, private investors are looking for a “one-stop shop” on data and information on investment opportunities and on the pipeline of SMEs.

Of the 109 organizations involved in three or more initiatives, just 10 are based in low- and middle-income countries. Engaging partners from outside high-income countries appears to be a challenge for the initiatives. The global nature of the majority of the initiatives, and the use of English as the primary working language of all of them, could be barriers to involving more members from the global South. There may also be issues related to awareness of the existence of initiatives, which are often promoted through intergovernmental bodies and at global conferences, which members from low-income countries may struggle to attend or engage with, and hence they may be unaware of the initiatives.

Membership base of initiatives

Figure 6 presents the distribution of the types of organizations engaged across all 51 initiatives. Members have been disaggregated by their organization type, and demonstrate a wide array of engagement across the public, private, and non-profit sectors.

Figure 6: Distribution of initiative members by organization type



Approximately 40% of members across the initiatives are from the private sector – banks, companies, investors, and social enterprises. The motivations for engagement by private sector organizations were outlined during interviews with representatives from nine initiatives. Such motivations include a willingness to improve organizational understanding of climate issues, concepts, and risks, a desire to work with peer organizations to collectively push for change among governments and other stakeholders in their respective sectors, and a desire to find collaborators with whom to test out new approaches for climate action.

A number of initiative members are engaged in multiple initiatives. These are primarily public sector organizations and foundations. Of the 59 organizations engaged in four or more initiatives, only 11 are private sector entities.

Table 5: Top 10 organizations by membership in different initiatives

Organization	Organization type	Number of initiatives
World Resources Institute	Think tank	15
United Kingdom	Government	15
World Business Council for Sustainable Development	Initiative	12
Australia	Government	11
CGIAR	Multilateral organization	11
Netherlands	Government	11
Germany	Government	10
UNEP	Multilateral organization	10
United States of America	Government	10
FAO	Multilateral organization	9

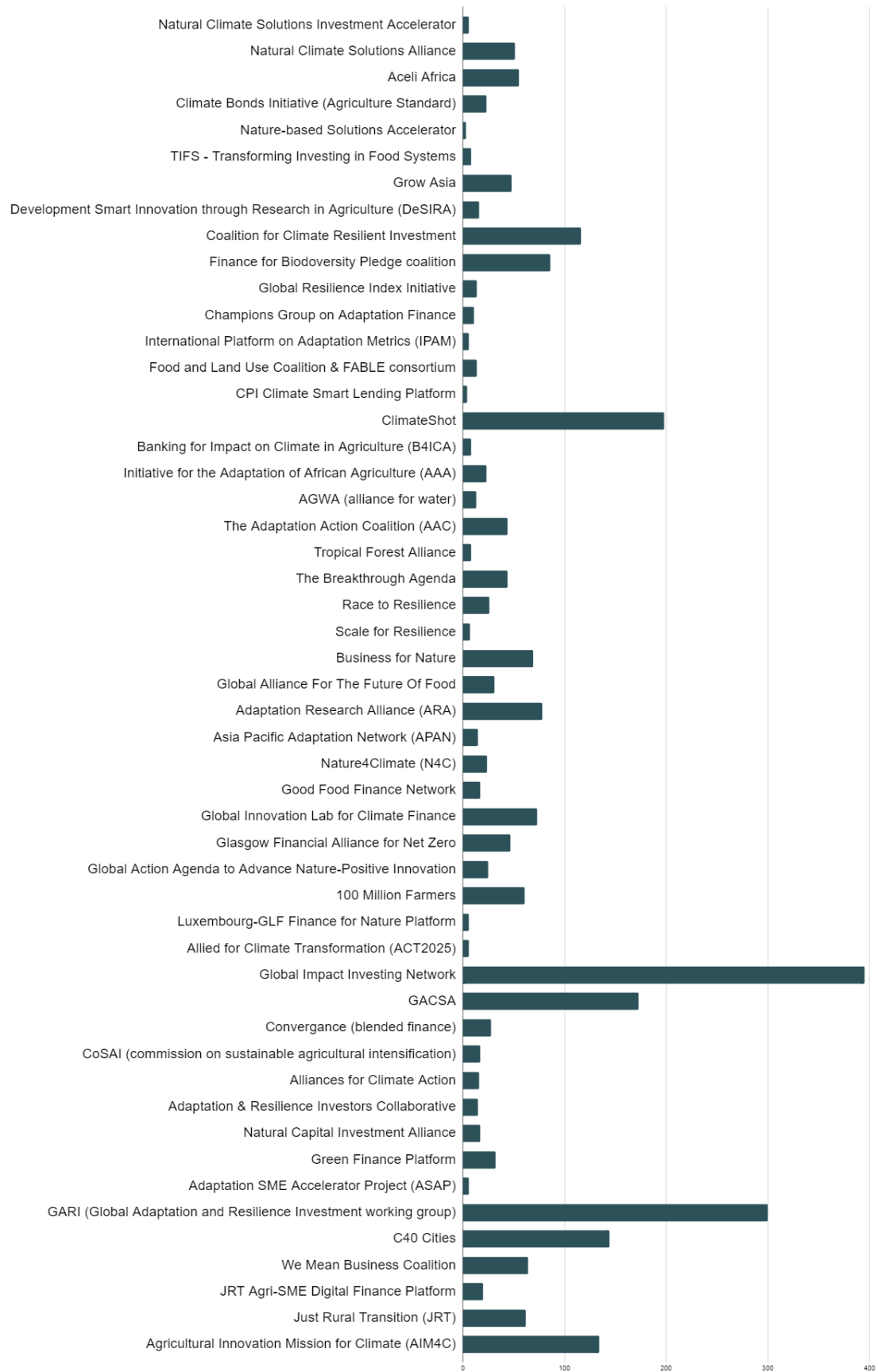
The company that is engaged in the greatest number of initiatives (seven) is Bayer, an agrochemicals company, while the bank that is engaged in the greatest number of initiatives (eight) is Rabobank, a social development focused cooperative bank based in the Netherlands.

HSBC is a member of six initiatives, and is primarily engaged in initiatives supporting nature-positive actions and NbS such as the Natural Capital Investment Alliance; it has also co-founded the NbS Accelerator. However, engagement in multiple initiatives does not necessarily lead to commitments and investments in adaptation solutions in agriculture.

Table 6: Top 10 private sector organizations by membership in different initiatives

Organization	Organization type	Number of initiatives
Rabobank	Bank	8
Bayer	Company	7
HSBC	Bank	6
Allianz Global Investors	Investor	4
Lightsmith Group	Investor	4
Syngenta	Company	4
SYSTEMIQ	Investor	4
Unilever	Company	4
Willis Towers Watson (WTW)	Company	4
Yara	Company	4

Figure 7: Distribution of initiatives by size of membership



Initiatives vary in size, from smaller groups focused on working collaboratively on specific interventions, such as the Natural Climate Solutions Investment Accelerator, with six private sector members, and the ACT2025 initiative, with six government members, through to initiatives with a larger member base, including the GIIN, with nearly 400 members, and the ClimateShot initiative, which aimed to raise ambition on climate action in the lead-up to the COP26 conference in 2021, and to sustain momentum to COP27 and beyond.

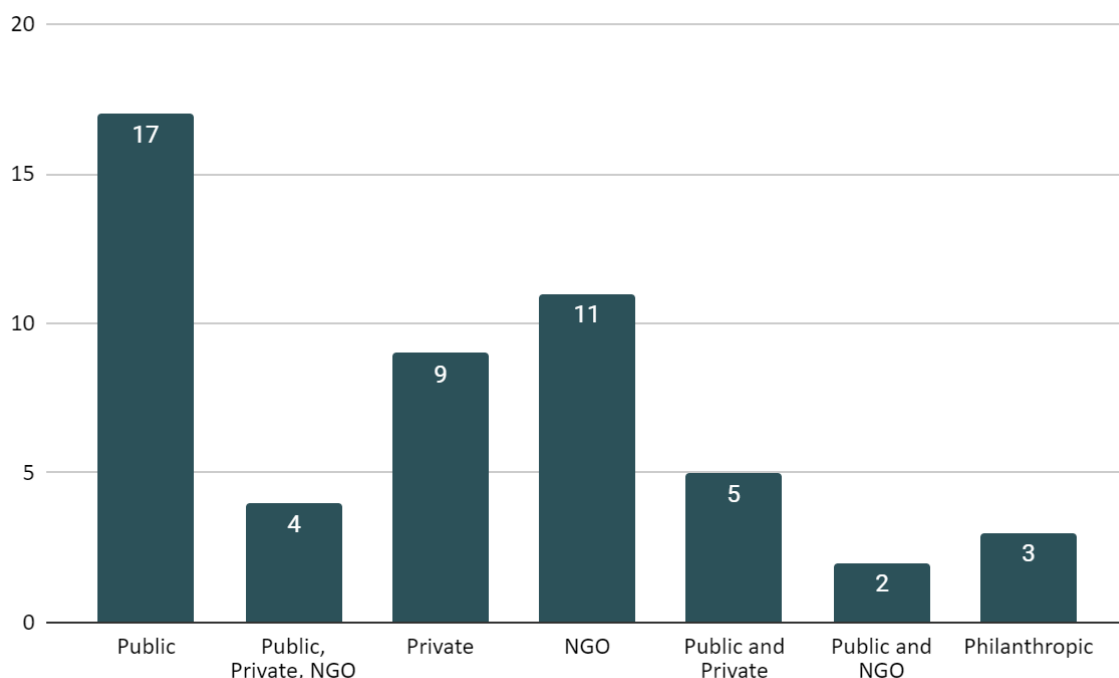
Initiative leadership

Initiatives are initiated and led by different types of organizations. In some cases, they are initiated by an organization or group of organizations to improve peer-to-peer learning on an issue. This is the case for GARI, which was established by the founders of the Lightsmith Group, who wanted to engage with peers on best practice approaches to climate resilience and adaptation investing, and to create a group of engaged individuals and companies to collectively address common challenges.

Some initiatives are established by leading organizations to try to create impact that is “greater than the sum of the parts” of the members. This is the case for the Global Alliance for the Future of Food, which was established by a group of philanthropic organizations that wanted to help collectively catalyse change in food systems. By pooling resources, knowledge, initiatives, and political leverage, the Alliance aims to influence the transformation of food systems towards more sustainable, climate-resilient approaches.

Other initiatives are established in response to policy signals and to show ambition on tackling climate change issues. For example, the AIM4C initiative was launched at COP26 in 2022 by the governments of the USA and UAE, to demonstrate their renewed commitment to the Paris Agreement goals and supporting technology innovation.

Figure 8: Distribution of initiatives by lead organization type



Private organization leadership

Private sector organizations are involved in the leadership of more than a third (18/51) of the initiatives, taking the sole lead in nine initiatives. Two initiatives led by private sector organizations focus on agriculture as the main sector (B4ICA and Aceli Africa), with the other

initiatives covering multiple sectors. Four private sector-led initiatives focus on increasing investment in nature-based solutions (primarily for GHG mitigation), with a further two focusing on achieving net-zero targets. This demonstrates the interest among companies in identifying viable opportunities for reducing their environmental and climate impacts.

Public organization leadership

Public institutions, such as government bodies and multilateral organizations, lead the majority of initiatives, as the sole lead of 33% of the initiatives and as co-leads of a further 22%. Of those initiatives that are led only by public institutions, eight primarily focus on adaptation, while a further six initiatives cover all types of climate action but have substantial work on adaptation action. This contrast with the focus of private sector-led initiatives demonstrates the willingness of public institutions to try to shift the focus more towards adaptation finance.

Nevertheless, only five of the initiatives led by public institutions include private sector members. 10 of the 17 initiatives led by public organizations are knowledge and enabling environment initiatives, and none are investment initiatives, indicating a greater focus on the “softer” aspects of change as compared to initiatives led by private organizations.

4. Knowledge needs and gaps

The key informant interviews identified a number of key knowledge and data needs and gaps were identified for addressing some of the perceived barriers to increasing the quantity and quality of climate finance for adaptation and resilience in agriculture.

Figure 9: Summary of knowledge gaps



Good practice examples and case studies

The availability of good practice examples of innovative financial mechanisms and partnerships, and case studies of business success, to demonstrate the viability and impact of such investments, were identified as the most critical knowledge needs across all initiatives interviewed, as well as by other initiatives on their websites.

The lack of such examples has led to some issues with member engagement. For example, a representative of a leading agricultural adaptation investment scheme highlighted in an interview that they no longer engage in most of the initiatives, because they are frequently held up as the leading example – despite still being in the early stages of their work. They noted that they rarely learn from peers, and so far, the sharing of their experiences and insights has not led to new business opportunities or other adaptation investment schemes being created, calling into question the climate finance mobilization theory of change of such knowledge-sharing initiatives.

Adaptation metrics

Common and high-quality metrics, methods, and MRV approaches for outcomes arising from adaptation and resilience actions and investments, as well as from the implementation of NbS and regenerative agriculture practices, were also considered by interviewees to be critical for mobilizing adaptation finance in agriculture. On this issue, IPAM noted that while there is a wealth of possible options, no “one size fits all”, and that they were instead developing sectoral and regional measurement approaches collaboratively with members.

Investment data

There is a knowledge gap in regard to the performance of innovative financial instruments and blended finance mechanisms for adaptation in agriculture in LMICs. Data on likely

returns on investment and avoided losses were highlighted as important knowledge gaps in three interviews. As only a relatively small range of case studies exist, there is a limited pool of examples from which data can be drawn. More publicly backed investments, including through risk-sharing public-private partnerships, will therefore likely be required to help develop a larger pool of business cases from which data can be collected and integrated into investment initiatives. This can then provide a stronger base which commercial finance providers can use to inform their future decision-making in the sector.

Public sector organizations highlighted in interviews that impact data and financial data on CSA technologies in LMICs are important for investment decision-making. Gathering and synthesizing this data was identified as a knowledge need, with the aim being for this data to be used to identify target businesses for investment by initiative members. This finding is aligned with previous research conducted by CASA with private finance investors (Casey *et al.*, 2021), which highlights the limited availability of data and narrative information on these types of technologies. Data is both piecemeal and insufficiently detailed to allow for a thorough economic appraisal or the identification of investment opportunities.

Understanding nature-based solutions and regenerative agriculture

Four initiatives identified the need for an improved understanding of what NbS in agriculture could look like in practice, along with improved articulation of its commercial viability, in order to incentivize private investment. Two initiatives noted the need for improved data on the carbon finance potential of NbS, as a means of attracting investment, while another identified the need for a standardized way to incorporate the value of ecosystem services into cost-benefit analyses for NbS.

Similar points were raised by three initiatives in relation to regenerative agriculture. The WMB and JRT initiatives highlighted the need for a common definition and understanding of regenerative agriculture (there are over 250 known definitions of the term),³ – noting that while there is much private sector interest in regenerative approaches, there are differing interpretations of what it requires in practice, and there is a lack of comparable metrics on improvements to supply chain resilience and business profitability.

WMB also noted that there is no scientific consensus on the permanence of soil carbon sequestration through regenerative agriculture, which is a critical barrier to businesses investing more readily in such practices in the context of their net-zero commitments.

Effective policies

Both WMB and the Good Food Finance Network noted that, unlike other “technology-driven” sectors, such as energy and transport, there is no common “roadmap” on how the agriculture sector can transform in the context of meeting the 1.5°C maximum global warming target and on sufficiently addressing resilience and adaptation needs for agricultural producers and value-chain businesses.

The heterogeneity of the agriculture sector, and its deep intersections with other issues and short-term pressures, including food security considerations, make this a more challenging proposition than developing technological transformation and policy roadmaps in other economic and industrial sectors.

On policy-related knowledge gaps, one interviewee identified a need for examples of effective policies for driving innovation in agriculture towards more climate-responsive action, and a deeper understanding of how policy contexts in LMICs can best shape public and private innovation agendas to achieve both adaptation and mitigation outcomes.

³ Statistic presented by Edward Barbier at the Nature-Based Solutions Conference, Oxford, 7th July 2022.

5. Conclusions and recommendations

There is a vast and diverse array of initiatives that aiming to tackle different pinch-points holding back investments in climate adaptation and resilience, as well as nature-based solutions, in the agriculture sector in low- and middle-income countries. This study identified a total of 1,700 organizations that are members of one or more of the 51 initiatives covered in this report, with 132 organizations participating in three or more initiatives.

Recommendations for initiatives

Table 7 sets out a number of recommendations for each category of initiatives, to enhance actions towards increased mobilization of finance for adaptation in agriculture in low- and middle-income countries. These recommendations can also serve to highlight areas where initiatives may wish to collaborate for more co-ordinated action, and to support new organizations, particularly private sector companies, to engage with different types of initiatives.

Table 7: Recommendations for initiatives

Recommendations	Relevant initiative types
Focus on engagement with companies and investors	<ul style="list-style-type: none"> • Investment • Action • Enabling environment
Link members to technical assistance	<ul style="list-style-type: none"> • Investment • Action
Focus on commercial viability	<ul style="list-style-type: none"> • Investment • Knowledge
Apply a localized approach to initiative-building	<ul style="list-style-type: none"> • All
Co-ordinate efforts on metrics	<ul style="list-style-type: none"> • Enabling environment
Create new initiatives targeted to specific action areas	<ul style="list-style-type: none"> • All
Track the impact of initiatives	<ul style="list-style-type: none"> • All

Focus on engagement with companies and investors

Initiatives should seek to optimize how they engage with different types of members, recognizing the range of motivations for engagement, and the qualities that different types of members can offer.

Investment and action initiatives which aim to mobilize private finance for climate adaptation in agriculture should ensure that companies and investors are represented among their membership. This can help to ensure that the work of these initiative actually aligns with the needs of the private sector to addressing critical barriers to scaling investment and action. Mobilizing new investment can be as much about changing mindsets as it is about presenting facts.

This may require initiative leads to directly reach out to specific companies and individuals to bring them on board and to demonstrate the value of engaging in a particular initiative. The current approach of most initiatives is to launch with a smaller group of collaborators, and then “advertise” and hope that others join. A more proactive approach may help to ensure that a wider range of members join, particularly investors and private sector companies.

Agri-SMEs are identified as core stakeholders for scaling out and implementing climate action, as well as being vulnerable to the impacts of climate change on their business operations. However, they are under-represented across the initiatives identified in this

report. Investment and action initiatives should actively reach out to agri-SMEs in their regions of focus, and, where necessary, provide support for those companies to engage in initiatives, particularly where financing opportunities are available.

It is not clear that the current approaches taken by these 51 initiatives are sufficiently focused on changing mindsets. This should be a greater focus of investment and action initiatives in the future.

Link members to technical assistance

A greater alignment between technical assistance projects and climate finance mobilization initiatives could help to overcome some of the barriers to scaling climate investment and action, by supporting both investors (of all types), businesses, and farmers to jointly navigate the complexities of climate finance and the technical complexities of successful adaptation and resilience action and access to CSA technologies. This recommendation is echoed in the recent Breakthrough Agenda report (IEA and IRENA, 2022).

The pipeline of investable, climate-smart businesses has been identified as one of the bottlenecks to increasing the scale of climate-aligned investments. Investment, action, and knowledge initiatives could support agri-SME members to access technical assistance opportunities, or signpost them towards potential opportunities for support. This may also require cross-initiative collaboration; initiative leads and members can use the initiative and members database (see Annex A) to help identify relevant potential partners.

Focus on commercial viability

Investment initiatives need to put a greater emphasis on proving commercial viability to encourage multinational companies and investors to fund relevant blended adaptation finance mechanisms. This should be complemented by identifying investment opportunities which can deliver mitigation and adaptation outcomes, to meet business needs.

There is a growing willingness among both public and private organizations to identify solutions for tackling both adaptation and mitigation climate challenges in agriculture. In particular, there is strong interest in regenerative agriculture practices. To engage companies and investors in investing in resilience and adaptation action, initiatives may need to focus on actions which primarily or concurrently address GHG emissions reductions. Minimizing risks to the functioning of supply chains, and reducing supply chain losses, can also be driving factors, where improved technologies and practices can increase supply chain resilience.

Apply a more localized, regional approach to initiative-building

An increased focus on regional and country-level initiatives that focus on adaptation in the agriculture sector may help to engage a wider range of partners, potentially with a deeper and more nuanced understanding of local contexts, and may help to engage locally based large companies and investors too. In particular, there is a need for a focus on the local nuances and specific contexts of countries that are highly vulnerable to climate change.

For knowledge initiatives, such a localized approach may also help ensure that the experiences and knowledge products shared are most relevant to the membership base, and commissioned research could focus on locally relevant issues and opportunities.

There are examples of successful regional initiatives covering mitigation actions in the utilities sectors, such as the Asia Investor Group on Climate Change, whose approach could be replicated to address adaptation issues in the agriculture sector.

Co-ordinate efforts on metrics

An international mechanism should be developed for monitoring, evaluating, and reporting on the natural capital value on which the agriculture sector depends, in part to address the issue of parallel activities and frameworks, and to help address this key knowledge gap.

Similarly, there should be an international mechanism for co-ordinating the approaches of enabling environment initiatives that aim to improve metrics on adaptation outcomes and impact investment performance. Currently, each initiative follows its own route. This can be helpful in identifying a range of possible approaches among different groups of members; but for such approaches to be effective a single, commonly agreed framework needs to be developed. This can be achieved through the role of a global co-ordination mechanism. This also echoes a recommendation from the Breakthrough Agenda report that,

“Countries and international organisations should develop internationally agreed standards for monitoring and reporting on the state of natural resources on which agriculture depends.” (IEA and IRENA, 2022)

Create new initiatives targeted to specific action areas

There is a need for more technical, targeted, and innovative action to drive and develop new means of scaling finance for adaptation in agriculture. There is a paucity of initiatives which aim specifically to address the particular “niche” of mobilizing private climate finance for adaptation in agriculture in low-income countries. There is an opportunity for interested organizations across the public, private, and non-profit sectors to coalesce around this particular market gap and to work collaboratively to address this under-served market.

Without specific initiatives focused on this issue, it is likely that other areas for climate-aligned investment will take precedence, and supporting the agriculture sector to cope with the impacts of climate change may be insufficiently addressed.

Track the impact of initiatives

While this study did not aim to assess the performance of the 51 initiatives, some important questions should be asked about the quality and impact of their work. Only one initiative is known to be systematically tracking its impact, and only one quantifies and publishes the volume of additional finance mobilized through its activities.

All types of initiatives should invest in demonstrating the impact they are having against their particular aims. This will help the initiatives to understand where to focus future efforts, understand which aspects of their work are having the greatest effect, and how different types of members are benefiting from their engagement in the initiative.

Research into the motives for different types of members joining initiatives would be helpful in order to better understand what attracts their interest, and how new and existing initiatives can best engage with under-represented groups of stakeholders. A study to explore the impacts of initiative membership among a group of organizations could explore issues such as the degree to which initiatives:

- improve the ‘climate literacy’ of individuals and organizations
- inform organizational strategies
- help build new collaborations and partnerships
- lead to new investment practices.

Opportunities for action

Table 8 sets out the possible research priorities for knowledge initiatives, which could help to unlock new investment for climate adaptation in the agriculture sectors of LMICs.

Table 8: Opportunities for action

Action area	Possible actions
How to support agri-SMEs in low- and middle-income countries to access public and private climate finance for adaptation and resilience	Work with high-potential agri-SMEs, public climate finance providers, and commercial investors to analyse bottlenecks and barriers, as well as to develop innovative finance models.
Understanding the adaptation co-benefits of regenerative agriculture from a business perspective	Work with a small number of small and large agri-businesses interested in regenerative agriculture, and co-operatives of smallholder farmers already applying such practices, to analyse the likely benefits for each stakeholder, and potential means of enhancing benefits and minimizing trade-offs.
Understanding the economic benefits and trade-offs of in-situ adaptation and resilience measures in existing supply chains	Working with a multi-national business, produce an economic analysis of the short- and long-term costs, loss avoidance, profits, and supply chain resilience, including consolidation effects, as against the costs of shifting suppliers and locations under near-term and medium-term climate impact scenarios for production suitability niches.
Understanding motivations and incentives for private sector and investor engagement in blended finance opportunities for adaptation and resilience in agriculture in low- and middle-income countries	Work with blended finance specialists and initiatives to explore incentives for investor engagement in such models for the agriculture sector. This would look to go beyond areas where there is already some interest and investment (e.g. insurance).
Develop country- and commodity-specific roadmaps for transformative change towards climate-resilient production and value chains	Develop specific country- and commodity-level plans which both align with achieving a 1.5°C maximum global warming scenario and which also aim to develop sufficient adaptive capacity among producers and value chain actors in relation to expected climate shocks and slow-onset hazards to production and supply.
Understanding the impact of initiatives on their members: Does engagement in climate finance initiatives increase organizational commitments to climate adaptation action? Do initiatives strengthen partnerships and networks of member organizations? Does engagement in initiatives improve the climate literacy of individuals and organizations?	Conduct social research analysis of members of key climate finance initiatives, building on the findings of this study, to delve deeper into the impacts such initiatives have on organizational engagement and commitment to climate action, understanding of climate change concepts, and their ability to foster and/or strengthen innovative partnerships among members. This would test the theory of change of the efficacy of these initiatives and would help to understand what works for different types of members, and why certain groups are often under-represented.

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Annex A: Database of initiatives

See: <https://www.casaprogramme.com/aid/>

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
Agricultural Innovation Mission for Climate (AIM4C)	https://www.aimforclimate.org/	AIM4C seeks to address climate change and global hunger by uniting participants to significantly increase investment in, and other support for, climate-smart agriculture and food systems innovation over five years (2021–2025).	USA and the UAE	Public	Action	Global	Public, private, NGO	134	Agriculture	Multiple	\$4bn
Just Rural Transition (JRT)	https://justruraltransition.org/policy-action-agenda/	The JRT brings together food producers, governments, businesses, investors, civil society, and rural and indigenous peoples to champion equitable solutions to food systems challenges. It aims to transform food and land use systems by: building an action-oriented evidence base; mobilizing stakeholders and catalysing partnerships; and strengthening collective purpose.	UK Foreign, Commonwealth and Development office (FCDO), ClimateWorks Foundation, World Business Council on Sustainable Development (WBCSD)	Public, private, NGO	Policy	Global	Public, private, NGO	62	Agriculture and forestry	Multiple	N/A
JRT Agri-SME Digital Finance Platform	https://invest.globalagribusinessalliance.com/	JRT works in collaboration with the investor community to ensure that private sector investments support the transition to sustainable, resilient agri-food systems. The JRT's investment partnership activities are hosted by the World Business Council for Sustainable Development, with support from the JRT Secretariat.	WBCSD, JRT Secretariat	Public, private, NGO	Investment	Global	Public, private, NGO	20	Agriculture	Multiple	N/A
We Mean Business Coalition	https://www.wemeanbusinesscoalition.org/	The We Mean Business Coalition catalyses business and policy action to halve emissions by 2030 and to accelerate an inclusive transition to a global net-zero economy by 2050.	We Mean Business	Private	Action	Global	Private	64	Multi-sector	Net-zero	N/A
C40 Cities	https://www.c40.org/what-we-do/scaling-up-climate-action/food-systems/	C40 Cities primarily focuses on city-led climate action, mostly on reducing emissions, but also disaster risk reduction and other issues. More recently, it has also moved into agriculture and food systems, stating that cities have strong control over many aspects of urban food systems. Its work in this area helps cities to implement policies that make it easier for people to eat more plant-based options and to waste less food. By doing so it hopes to reduce emissions, improve health and equity, and enhance climate resilience.	Chaired by London Mayor Sadiq Khan	Public	Policy	Global	Public	144	Multi-sector	Net-zero	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
Global Adaptation and Resilience Investment working group (GARI)	https://qarigroup.com/	GARI brings together private and public sector investors, bankers, lenders, and other stakeholders to discuss critical issues at the intersection of climate adaptation and resilience and investment, with the objective of helping to assess, mobilize, and catalyse action and investment. It aims to provide education, research, and resources to build awareness and capacity in the private sector towards the mission of catalysing investment in resilience.	Lightsmith Group	Private	Knowledge	Global	Private and NGO	300	Multi-sector	Adaptation	N/A
Adaptation SME Accelerator Project (ASAP)	https://climateasap.org/	ASAP seeks to build an ecosystem for early-stage companies in emerging markets that have technologies, products, and services that can be used to build resilience to the physical impacts of climate change. The programme includes the identification of adaptation SMEs, the development of a comprehensive taxonomy for defining which types of products and services are considered "climate resilience and adaptation solutions", a series of regional conferences and networking opportunities for adaptation SMEs and other stakeholders, and partnerships with existing incubator and accelerator programmes to develop an adaptation-, resilience-, and social impact-focused curriculum for adaptation SMEs.	Lightsmith Group, IADB, GEF, Conservation International	Public, private, NGO	Action	Global	Public, private, NGO	6	Multi-sector	Adaptation	N/A
Green Finance Platform	https://www.greenfinanceplatform.org/sectors/agriculture	The Green Finance Platform is a global community of policy, business, and finance professionals and organizations who are committed to collaboratively generating, managing, and sharing knowledge on the transition to an inclusive green economy.	GGGI, UNEP, UNIDO, OECD, World Bank	Public	Knowledge	Global	Public, private, NGO	32	Multi-sector	Multiple	N/A
Natural Capital Investment Alliance (NCIA)	https://www.sustainable-markets.org/ncia/	NCIA aims to complement existing initiatives and to create a stronger relationship between public sector and civil society experts in natural capital, on the one hand, and traditional investors, on the other.	HSBC, Lombard Odier, Mirova	Private	Knowledge	Global	Private	17	Multi-sector	Nature-based solutions	\$10bn by 2022
Adaptation & Resilience Investors Collaborative	https://gca.org/news/collaborating-to-accelerate-investment-in-climate-adaptation-and-resilience/	Adoption of a common approach to identifying eligible investments and reporting on impact and progress. Activities are also ongoing to improve physical climate risk assessment capabilities, shape markets, and build pipelines of bankable investments.	G7 and related development finance institutes (including BII); Global Centre on Adaptation	Public	Enabling environment	Global	Public	15	Multi-sector	Adaptation	Increase finance from development finance institutes to adaptation
Alliances for Climate Action	https://www.alliancesforclimateaction.org/	Alliances for Climate Action is a network of national alliances that are dedicated to driving ambitious climate action, increasing public support for addressing	WWF	NGO	Action	Global	Public, private, NGO	16	Multi-sector	Net-zero	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		the climate crisis, and engaging national governments to decarbonize faster.									
Commission on Sustainable Agricultural Intensification (CoSAI)	https://wle.cgiar.org/cosai/evidence	CoSAI gathers existing evidence to identify what needs to change to ensure investments support environmental sustainability and benefit the poorest people. It has commissioned four major studies in areas where there are critical knowledge gaps.	CGIAR	Public	Knowledge	Global	Public	17	Agriculture	Multiple	N/A
Convergence (blended finance)	https://www.convergence.finance/about	Convergence is the global network for blended finance. It generates blended finance data, intelligence, and deal flow to increase private sector investment in developing countries.	Convergence	Private	Knowledge	Global	Public and private	28	Multi-sector	Multiple	N/A
Global Alliance for Climate-Smart Agriculture (GACSA)	https://www.fao.org/gacsa/about/en/	GACSA aims to catalyse and help create transformational partnerships to encourage actions that reflect an integrated approach to the three pillars of CSA: convening, connecting, and communicating.	FAO	Public	Knowledge	Global	Public, private, NGO	173	Agriculture	Multiple	N/A
Global Impact Investing Network	https://thegiin.org/climate-finance	GIIN is the global champion of impact investing, dedicated to increasing its scale and effectiveness around the world. By convening impact investors to facilitate knowledge exchange, highlighting innovative investment approaches, building the evidence base for the industry, and producing valuable tools and resources, GIIN seeks to accelerate the industry's development through focused leadership and collective action.	GIIN	NGO	Enabling environment	Global	Public, private, NGO	395	Multi-sector	Net-zero	N/A
Allied for Climate Transformation (ACT2025)	https://www.wri.org/initiatives/allied-climate-transformation-act2025	ACT2025 is a consortium that convenes key stakeholders to discuss, identify, and guide ambitious outcomes at United Nations climate negotiations. It aims to scale up climate finance, enhance tracking and support for adaptation, provide support for loss and damage, and finalize rules and architecture for finance targeted at the communities that are most vulnerable to climate change.	World Resources Institute	NGO	Policy	Global	Public	6	Multi-sector	Adaptation	N/A
Luxembourg-GLF Finance for Nature Platform	https://www.globallandscapesforum.org/luxembourg-glf-platform/	The platform aims to shift financial flows towards land-use models that are sustainable, equitable, inclusive, and profitable, through knowledge management, communications, learning, and capacity building. These activities aim to share and accelerate the uptake of lessons learned and best practices relating to scaling appropriate financing models for REDD+, ecosystem-based adaptation (EbA), climate-smart	Global Landscapes Forum, Government of Luxembourg	Public	Knowledge	Global	Public and NGO	6	Agriculture and forestry	Multiple	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		agriculture (CSA), ecosystem restoration, and sustainable supply chains.									
100 Million Farmers	https://www.weforum.org/communities/100-million-farmers	100 Million Farmers is a global platform that seeks to drive an action focus agenda anchored in regional and national coalitions that develop "lighthouse" projects led by multi-stakeholder public-private coalitions. All 100 Million Farmers lighthouse projects draw on critical enablers, such as innovation, data, transformative finance and partnerships, and adapt these to the local context. The platform model also ensures the sharing and translation of best practices across regions. 100 Million Farmers has three bold objectives: accelerating the transition towards food systems that are net-zero, nature-positive, and that increase farmer resilience. All three are critical in order to achieve a successful transition	World Economic Forum	Public and private	Action	Global	Public, private, NGO	61	Agriculture	Multiple	N/A
Global Action Agenda to Advance Nature-Positive Innovation	https://foodsystems.community/commitment_to_action/global-action-agenda-to-advance-nature-positive-innovation/	This coalition unleashes the potential of nature-positive innovation, i.e. innovation that spurs agricultural productivity growth while contributing to positive environmental and socio-economic outcomes. While the focus is on primary production, its broader objective is to foster nature-positive innovation to address systemic issues across the entire food system, helping organizations, institutions, and communities deliver transformative innovation at scale, building on science-based evidence.	CGIAR, FCDO	Public	Action	Global	Public, private, NGO	25	Agriculture	Multiple	N/A
Glasgow Financial Alliance for Net Zero (GFANZ)	https://www.gfanzero.com/	GFANZ brings together existing and new net-zero finance initiatives in one sector-wide coalition. GFANZ provides a forum for leading financial institutions to accelerate the transition to a net-zero global economy. Its members currently include over 450 financial firms across 45 countries, responsible for over \$130 trillion of assets.	United Nations Special Envoy for Climate Action and Finance	Public and private	Investment	Global	Private	47	Multi-sector	Net-zero	N/A
Global Innovation Lab for Climate Finance	https://www.climatefinancelab.org/	The Lab seeks to identify innovative finance solutions that can unlock investment to tackle some of the most challenging climate and sustainable development challenges and investment opportunities for a net-zero economy. According to the lab, proposed sustainable finance vehicles should offer returns for private investors, create jobs and other local economic benefits.	Climate Policy Initiative (CPI), funded by UK Government, German Government, Swedish Government	Public and NGO	Action	Global	Public and private	73	Multi-sector	Multiple	\$3.2bn mobilized

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		sustain biodiversity, improve climate resilience, and decrease emissions.									
Good Food Finance Network	https://goodfood.finance/	The Good Food Finance Network is a multi-stakeholder collaborative innovation platform working to develop the critical innovations that will allow sustainable food system finance to become the mainstream standard. The Network is convened by EAT, FAIRR, Food Systems for the Future, UNEP, and WBCSD, in close collaboration with the World Bank, S2G Ventures, the UNEP-FI, the GEF, PRI, JRT, and other supporting partners.	EAT, FAIRR, Food Systems for the Future, UNEP, WBCSD	Public, private, NGO	Policy	Global	Public, private, NGO	17	Agriculture	Multiple	N/A
Nature4Climate (N4C)	https://nature4climate.org/	N4C uses strategic communications to raise the profile of nature as a climate solution. N4C is composed of 19 of the world's leading conservation, multilateral, and business organizations. N4C works to catalyse partnerships between governments, civil society, businesses, and investors, recognizing the urgent need to protect, restore, and fund nature-based solutions. Its work includes advocating for and demonstrating the breadth and untapped potential of better management of land activities; pointing out successes around the world; facilitating dialogue around nature-based solutions; and sharing scientific knowledge; providing unbranded communications resources and creative treatments of the subject; and more.	N4C, TNS	NGO	Knowledge	Global	Public and NGO	24	Multi-sector	Nature-based solutions	N/A
Asia Pacific Adaptation Network (APAN)	http://www.asiapacificadapt.net/about-apan/	APAN's mission is to build climate change-resilient and sustainable human systems, ecosystems, and economies through the mobilization of knowledge, enhanced institutional capacity, and informed decision-making processes, and by facilitating access to finance and technologies. APAN's purpose is to equip key actors in the Asia and the Pacific region with adequate knowledge to design and implement climate change adaptation measures, build capacity to access technologies and finance in support of climate change adaptation, and integrate climate change adaptation into policies, strategies, and plans.	Institute of Global Environmental Strategies (IGES), UNEP, Regional Resource Centre for Asia and the Pacific (RRC.AP), Stockholm Environment Institute (SEI)	Public and NGO	Knowledge	Asia	Public	15	Multi-sector	Adaptation	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
Adaptation Research Alliance (ARA)	https://southsouthnorth.org/portfolio_page/adaptation-research-alliance/	ARA is a global, collaborative effort to increase investment in, and opportunities for, action research to develop and inform effective adaptation solutions. Through diverse stakeholder partnerships and collaborations between funders, researchers, and actors that make up the ARA membership, it seeks to co-create, innovate, and find solutions that have tangible effects on people's everyday lives.	South North	NGO	Knowledge	Global	Public and NGO	78	Multi-sector	Adaptation	N/A
Global Alliance for the Future of Food	https://futureoffood.org/our-work/our-strategy/	The Alliance is a strategic alliance of philanthropic foundations collaborating on bold action across the planet to transform food systems and their impacts on climate change and food security. It aims to better understand current realities, co-create the solutions needed, and inform action within its respective constituencies.	N/A	Philanthropic	Knowledge	Global	Philanthropic	31	Agriculture	Multiple	N/A
Business for Nature	https://www.businessfornature.org/about	Business for Nature is a global coalition that brings together business and conservation organizations and forward-thinking companies. Together, these actors demonstrate and amplify a credible business voice on nature calling for governments to adopt policies to reverse nature loss in this decade. It encourages companies to commit and act to reverse nature loss, and advocates for greater policy ambition.	WBCSD	Private	Policy	Global	Private and NGO	69	Multi-sector	Nature-based solutions	N/A
Scale for Resilience	https://yapu.solutions/scaleforresilience/	This initiative aims to make smallholder farmers around the world more resilient by leveraging the benefits of nature-based solutions. To achieve this, Scale for Resilience addresses all parts of the financial value chain and seeks to create the conditions for financing nature-based solutions on a large scale by promoting digital tools.	YAPU, GAWA Capital, CGIAR	Public and private	Enabling environment	Global	Public and private	7	Agriculture	Adaptation	N/A
Race to Resilience	https://racetozero.unfccc.int/join-the-race-to-resilience/	Race to Resilience is the United Nations-backed global campaign to catalyse a step-change in global ambition on climate resilience, putting people and nature first in pursuit of a resilient world where they do not just survive climate shocks and stresses, but thrive in spite of them.	UNFCCC	Public	Action	Global	Public, private, NGO	26	Multi-sector	Adaptation	N/A
The Breakthrough Agenda	https://racetozero.unfccc.int/system/qlasgow-breakthroughs/ https://racetozero.unfccc.int/system/land/	The Breakthrough Agenda is an unprecedented international clean technology plan that aims to help keep the 1.5°C target in reach. It provides a framework for countries and businesses to join up and strengthen their actions every year, in every sector, through a coalition of leading public, private, and public-private global initiatives, and	UNFCCC, UK	Public	Action	Global	Public	44	Multi-sector	Multiple	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		signposts the leading global initiatives that can help ensure success. Bringing together the tools of government and business and financial ingenuity, the Agenda aims to make clean solutions the most affordable, accessible, and attractive option in every sector, by the end of this decade.									
Tropical Forest Alliance	https://www.tropicalforestalliance.org/en/about-tfa/about/	The Tropical Forest Alliance catalyses the power of collective action to drive the world's transition to deforestation-free supply chains, ensuring a forest-positive future. The Tropical Forest Alliance is a multi-stakeholder partnership platform initiated to support the implementation of private sector commitments to remove deforestation from palm oil, beef, soy, and pulp/paper supply chains.	World Economic Forum	Public and private	Action	Global	Public, private, NGO	8	Agriculture and forestry	Net-zero	N/A
The Adaptation Action Coalition (AAC)	https://www.wri.org/initiatives/adaptation-action-coalition https://www.gov.uk/government/publications/adaptation-action-coalition-an-overview/adaptation-action-coalition-an-overview	AAC aims to accelerate adaptation globally. This state-led initiative of 40 member countries (and counting) is driving adaptation action to achieve a climate-resilient world by 2030. Together, AAC members foster even greater political ambition on adaptation, turning high-level commitments into targeted, tangible, and practical action.	UK, Egypt, Bangladesh, Malawi, the Netherlands, Saint Lucia, and the United Nations	Public	Action	Global	Public	44	Multi-sector	Adaptation	N/A
Alliance for Water (AGWA)	https://www.alliance4water.org/technical-work	AGWA's vision is for effective climate change adaptation and mitigation practices to be mainstreamed and enabled within water resources management decision-making processes, policies, and implementation. AGWA's mission is to provide tools, partnerships, guidance, and technical assistance to improve effective decision-making, action, governance, and analytical processes in water resources management, focusing on climate adaptation and mitigation.	AGWA	NGO	Enabling environment	Global	Public, private, NGO	13	Water	Adaptation	N/A
Initiative for the Adaptation of African Agriculture (AAA)	https://www.aaainitiative.org/en	AAA promotes and supports solutions and good practices in soil management, agricultural water control, climate risk management, and capacity building and financing solutions.	African Union	Public	Enabling environment	Africa	Public, private, NGO	23	Agriculture	Adaptation	N/A
Banking for Impact on Climate in Agriculture (B4ICA)	https://www.wbcsd.org/Programs/Food-and-Nature/News/Leading-banking-institutions-join-forces-in-new-initiative-to-support-decarbonization-of-the-agriculture-sector	This initiative aims to convene and facilitate a coalition of banks and relevant experts and academics to develop and align consistent methods, targets, harmonized tools, and guidance for finance institutions seeking to assess and disclose the alignment of their portfolios with various climate scenarios, as well as	WBSCD	Private	Enabling environment	Global	Private	8	Agriculture	Net-zero	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		to engage with clients on mitigation options.									
ClimateShot	https://www.climateshot.earth/	ClimateShot's key objectives are the following: to increase investment in agricultural research and innovation to create more climate-resilient, low-emission technologies and practices; to focus on at least a third of agricultural research and innovation investments to deliver demand-driven solutions across food systems to protect nature and limit climate change; to showcase successful business models and promote public-private partnerships that deploy these innovations at the scale needed to meet the climate and food security challenge; and to forge a consensus on the evidence of what works, and to facilitate inclusive dialogue among food and climate champions around the world. The initiative brings together leading organizations investing in private sector-led solutions in agriculture and food systems to accelerate financing for the SDGs.	FCDO, CGIAR	Public	Action	Global	Public, private, NGO	198	Agriculture	Multiple	N/A
CPI Climate-Smart Lending Platform	https://www.climatepolicyinitiative.org/climate-smart-lending-platform/	CPI Climate Smart Lending Platform helps lenders incorporate climate risk in their loan portfolios while incentivizing the adoption of climate-smart farming methods by smallholders. The long-term goal of the Platform is to mainstream CSA metrics into the credit scoring systems of financial institutions without concessional backing.	CPI	NGO	Enabling environment	Global	Public and private	4	Multi-sector	Multiple	
Food and Land Use Coalition & FABLE consortium	https://www.foodandlandusecoalition.org/	A community of organisations and individuals committed to the urgent need to transform the way we produce and consume food and use our land for people, nature and climate.	World Resources Initiative	NGO	Knowledge	Global	Public and NGO	14	Agriculture and forestry	Multiple	N/A
International Platform on Adaptation Metrics (IPAM)	https://adaptationmetrics.org/	IPAM aims to become an international reference platform for adaptation metrics, across scales and sectors, and to co-develop metrics and tools going beyond the state of the art to respond to emerging adaptation needs. IPAM also seeks to create synergies among its members to refine and advance concepts in science, governance, management, project monitoring and evaluation, communication, capacity building, and climate finance.	AAA Initiative, University Mohammed VI	Public	Enabling environment	Global	Public and NGO	6	Multi-sector	Adaptation	N/A
Champions Group on Adaptation Finance	https://www.iied.org/new-champions-group-adaptation-finance-launched-amid-call-accelerate-adaptation-finance	The group encourages bilateral, multilateral, and private finance providers to make efforts to improve the quantity, quality, and accessibility of adaptation finance, and to join the Champions	Ireland, Netherlands, Denmark, Sweden, United	Public	Investment	Global	Public	11	Multi-sector	Adaptation	Double adaptation finance by 2025 (was approximately

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
		Group if they can commit to its objectives.	Kingdom, Finland								\$4.8bn in 2019)
Global Resilience Index Initiative (GRII)	https://www.cgfi.ac.uk/global-resilience-index-initiative/	The GRII aims to provide reference data on climate and natural hazard risks to inform and protect populations and economies, particularly in emerging and developing countries, to form a basis for mobilizing the trillions of investment needed to meet the Paris goals on climate-resilient development. This information will be open and accessible to all using shared standards and consistent metrics at local to global scales.	UK Centre for Greening Finance and Investment (CGFI)	Public	Enabling environment	Global	Public	14	Multi-sector	Adaptation	N/A
Finance for Biodiversity Pledge coalition	https://www.financeforbiodiversity.org/	Pledge signatories call on global leaders to commit to, and themselves commit to, protecting and restoring biodiversity through their finance activities and investments by collaborating and sharing knowledge, engaging with companies, assessing impact, setting targets, and reporting publicly on the above, before 2025.	Finance for Biodiversity Foundation	Philanthropic	Investment	Global	Private	86	Multi-sector	Nature-based solutions	Up to \$700bn per year by 2025
Coalition for Climate Resilient Investment	https://resilientinvestment.org/who-we-are/	Launched at the United Nations Climate Action Summit in 2019 as a private sector-led initiative, the coalition supports investors and policymakers to better understand and manage physical climate risks. With over 120 members and \$20 trillion in assets under management, the coalition spans governments, international organizations, technical institutions, ratings agencies, and private financial institutions.	Chaired by representatives of member organizations	Public and private	Enabling environment	Global	Public and private	116	Infrastructure	Adaptation	N/A
Development Smart Innovation through Research in Agriculture (DeSIRA)	https://europa.eu/capacity4dev/desira	The objective of the DeSIRA initiative is to contribute to climate-relevant, productive, and sustainable transformation of agriculture and food systems in low- and middle-income countries. DeSIRA aims to support research and innovation projects in Africa, Asia, and Latin America, and to strengthen research capacities and research governance involving key actors at national, regional, continental, and global levels.	European Commission	Public	Knowledge	Global	Public and NGO	16	Agriculture	Adaptation	€300m
Grow Asia	https://www.growasia.org/	Grow Asia is a multi-stakeholder platform established by the World Economic Forum and the ASEAN Secretariat with the aim of cultivating more inclusive, resilient, and sustainable food systems in Southeast Asia.	Grow Asia	NGO	Investment	Asia	Public, private, NGO	48	Agriculture	Adaptation	N/A

Initiative	Website	Overview	Lead organization(s)	Lead organization type	Type of initiative	Geographical region	Types of members	Total membership	Sector focus	Climate focus	Investment mobilization targets
Transforming Investing in Food Systems (TIFS)	https://www.tifsinitiative.org/	TIFS is a cross-cutting initiative that is working to amplify pathways, share insights, and develop tools to support principles-aligned, integrative food systems investing that generates positive non-financial and financial returns.	Global Alliance for the Future of Food, Agroecology Fund	Philanthropic	Investment	Global	Philanthropic	8	Agriculture	Nature-based solutions	N/A
Nature-based Solutions Accelerator	https://www.wwf.org.uk/who-we-are/who-we-work-with/nbs-accelerator	The Accelerator seeks to build and scale the nature-based solutions marketplace by creating systemic infrastructure to reduce transaction costs and drive higher volumes of nature-based solutions activity.	WWF	NGO	Investment	Global	Private and NGO	3	Multi-sector	Nature-based solutions	N/A
Climate Bonds Initiative (Agriculture Standard)	https://www.climatebonds.net/standard/agriculture	The Agriculture Standard lays out the requirements that agriculture assets and/or projects must meet to be eligible for inclusion in a Certified Climate Bond. The Standard's criteria apply to crop and livestock production. The criteria contain both mitigation requirements and adaptation and resilience requirements.	CBI	NGO	Enabling environment	Global	Public and private	23	Agriculture	Multiple	N/A
Aceli Africa	https://aceliffrica.org/	Aceli Africa aims to generate impact by bridging the gap between supply and demand for capital for agricultural SMEs, with a focus on climate-smart and resilient agriculture. This includes blended finance instruments, and data and knowledge sharing on the agri-SME market. It also aims to build the knowledge base on this type of investing to inform policymaking.	Aceli	Private	Investment	Africa	Public and private	55	Agriculture	Adaptation	\$700m by 2024
Natural Climate Solutions (NCS) Alliance	https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/Natural-Climate-Solutions/The-Natural-Climate-Solutions-Alliance	The NCS Alliance conveys the voice of businesses, NGOs, and solution providers on the need to mobilize a high-integrity demand for high-quality NCS. The Alliance focuses on identifying opportunities and barriers to investment in the NCS voluntary carbon market and also serves as a forum for knowledge sharing and technical capacity building to ensure natural climate solutions reach their full potential in regard to abating climate change.	WBCSD	Private	Enabling environment	Global	Private and NGO	51	Multi-sector	Nature-based solutions	N/A
NCS Investment Accelerator	https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/Natural-Climate-Solutions/The-NCS-Investment-Accelerator	The NCS Investment Accelerator is a multi-stakeholder initiative driving investment in NCS emissions reductions and removals credits. The NCS Investment Accelerator galvanizes corporates to go above and beyond the internal decarbonization required to meet the Paris Agreement by investing in high-quality, high-integrity NCS credits.	WBCSD	Private	Investment	Global	Private	6	Multi-sector	Nature-based solutions	N/A

Annex B: List of interviewees

Table 9: List of interviewees

Interviewee	Organization	Initiative
Amal-Lee Amin; Chiara Trabacchi	British International Investment (formerly CDC)	Adaptation and Resilience Investors Collaborative
Karim Anegay; Driss Ouazar	International Platform for Adaptation Metrics (IPAM); Mohamed V University	International Platform for Adaptation Metrics (IPAM)
Lori Collins	Collins Climate Consulting	Global Adaptation and Resilience Investment initiative (GARI)
Luke Pritchard	We Mean Business coalition	We Mean Business coalition
Melissa Pinfield	Just Rural Transition	Just Rural Transition
Victoria Crawford	World Business Council for Sustainable Development	JRT Agri-SME Digital Finance Platform
Dhanush Dinesh	Clim-eat	Global Action Agenda to Advance Nature-Positive Innovation
Olav Kjørven	EAT Initiative	Good Food Finance Network
Nate Warszawski; Nisha Krishnan; Preety Bhandar	World Resources Institute	Allied for Climate Transformation (ACT2025)

Annex C: Other climate finance initiatives and funds

In addition to the 51 initiatives identified for inclusion in this report, there are also a number of other organizations, projects, and funds which aim to support increased climate finance from a range of sources for adaptation, agriculture, and nature-based solutions.

- The Lightsmith Climate Resilience Fund is a private equity fund that focuses on climate resilience and adaptation, including in agriculture as a priority investment sector. It invests in growth-stage technology companies globally, and raised \$186 million at first close in January 2022. It uses the leverage of institutional and public investors to crowd-in additional private capital. Although it has no explicit geographical focus, it has already made investments in an adaptation technology company in India working to reduce post-harvest food loss, demonstrating that it is considering emerging and low-income economies for its investments.
- The Acumen Resilient Agriculture Fund (ARAF) is a \$58 million impact fund targeted at building the climate resilience of smallholder farmers, through investments in agri-SMEs. It combines funds from philanthropic organizations and impact investors to invest in companies that supply to, or source from, smallholder farmers and provide technologies and services that can enhance their resilience and support their adaptive capacity. To date it has made investments in five agri-SMEs.
- In East Africa, the Climate Resilient Agribusiness for Tomorrow (CRAFT) project, led by SNV (Netherlands Development Organisation), in collaboration with two research organizations and two impact investors. It aims to leverage \$10 million in private finance, and to increase the uptake of CSA practices and technologies in Uganda, Kenya, and Tanzania.
- The Agri-business Capital Fund (ABC Fund) is an impact fund that focuses on supporting smallholder farmers and agri-SMEs in low-income countries. It offers direct financing to agri-SMEs, indirect funding to smallholders through financial intermediaries providing concessional finance, and a technical assistance facility serving producer organizations and agri-SMEs. The fund has a specific focus on financing climate change adaptation solutions, and is backed by a consortium of nine public organizations and impact investors.
- Nature Based Solutions is an organization which works to provide technical and policy insights on NbS opportunities, and which undertakes research to inform investors and policymakers in this area. It has developed an online “community” of interested stakeholders on LinkedIn, and focuses primarily on four landscape types: coasts, rivers, lakes, and urban areas. While there is no specific focus on agriculture, farming is dependent on the quality and good functioning of such ecosystems.
- The TECA (Triggering Exponential Climate Action) initiative, a collaboration between BFA Global and a team of external advisors, aims to provide seed funding for financial technology (fintech) innovations that can support climate resilience. This will be implemented through a series of “waves” – thematic initiatives focusing on specific sectors. The first is on the “Blue Economy” in East Africa, while later waves will include CSA and regenerative agriculture. However, at the time of writing, these later waves have not yet been initiated.
- The Stockholm Environment Institute and WBCSD have teamed up to develop the Stockholm Action Agenda. They engaged with 34 businesses and NGOs to identify critical actions which need to be taken across a range of sectors, including agriculture, to increase value chain resilience and to decarbonize the supply chains of key commodities. One of the prioritized actions is to create a “*global programme*”

on *redefining value*”, including the value of nature and biodiversity, in investment decision-making.

- Mobilizing investment in climate resilience and adaptation in agriculture has also become a focal issue in some high-profile conferences. The Finance in Common Summit, co-hosted by the African Development Bank and European Investment Bank, will focus its 2022 edition on the topic of *“a green and just transition for a sustainable recovery”*. This builds on the 2021 summit, which saw the launch of the Public Development Banks for Sustainable Food Systems Platform, which aims to encourage and support development finance institutes to *“scale up their investment and support to promote inclusive and sustainable agriculture and food systems”*. However, no information is publicly available on the progress of the platform.
- The Africa Green Revolution Forum (AGRF), an annual conference that focuses on investing in agribusiness in Africa, will focus its 2022 event on *“bold actions for resilient food systems”*. The conference will explore topics including the mobilization of climate finance from public and private sources to address adaptation and resilience in agriculture across the continent. This includes activities such as the *“Deal Room”* – a virtual networking platform for negotiating potential investments in agri-businesses, which in 2021 secured over \$5 billion in investment commitments.
- The Smallholder and Agri-SME Finance and Investment Network (SAFIN) is a network of financial institutions, philanthropic foundations, concessional lenders, technical assistance providers, farmers' organizations, and development finance institutes committed to increasing access to financial services for agri-SMEs and for commercial smallholder farmers. It is led and hosted by the International Fund for Agricultural Development and is partly funded by the Italian Government. Although climate action is not a central area of the initiative's work, it does consider the impacts of climate change and climate resilience under its workstream on *“financial solutions to emerging sector challenges”*. It is a knowledge initiative, and primarily produces reports and policy briefs in collaboration with other initiatives and organizations, such as Convergence.
- The Adaptation Action Agenda, initiated by the Global Centre on Adaptation, was identified as a possible candidate for inclusion in the report, as it has a stated focus on sharing knowledge, catalysing action, and informing investments in adaptation. However, following its launch at Climate Adaptation Summit in 2021, there has been no further updates on its work, membership, or aims, and all webpages related to the initiative have since been taken down. It is assumed that it is no longer active.



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