



AIM FOR CLIMATE REPORT

Cultivating Transformative Investments in Climate-Smart Agriculture and Food Systems Innovation

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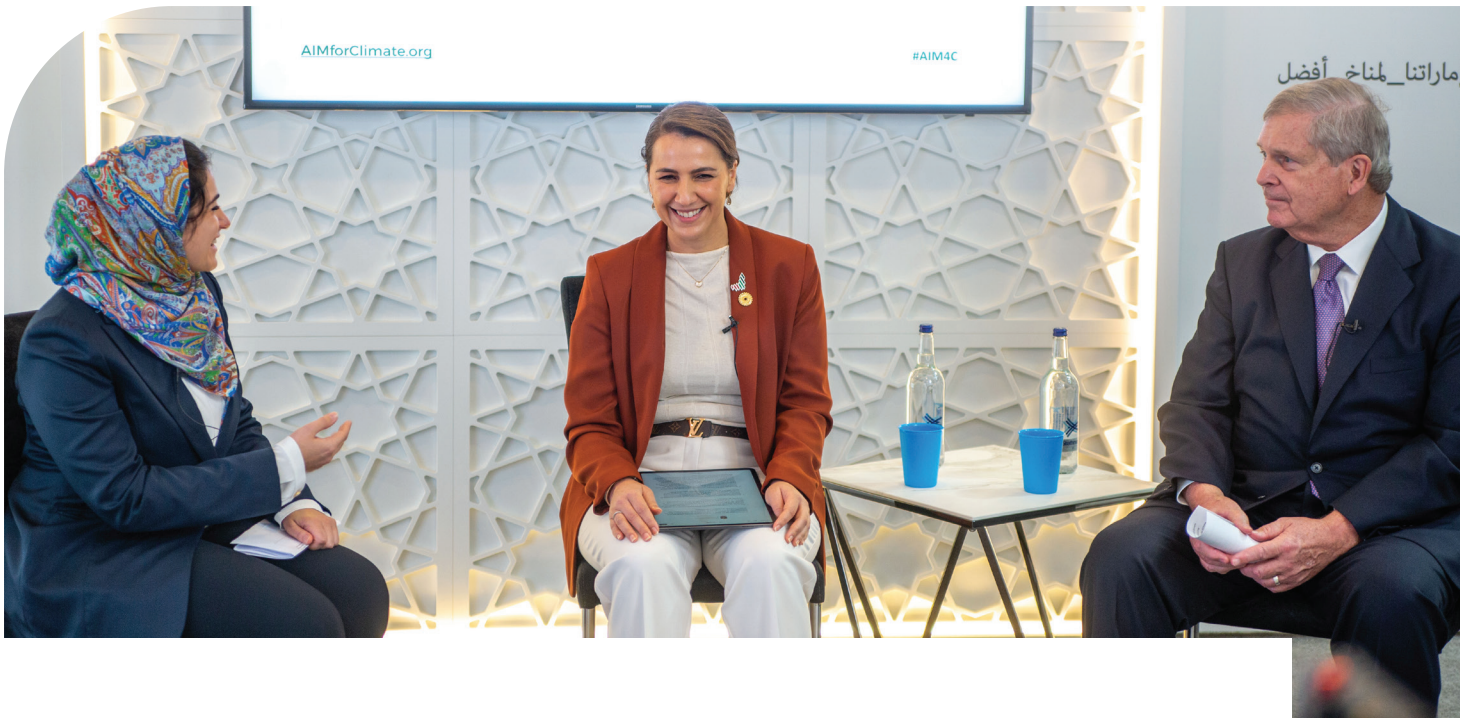
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COP29 Update

PUBLISHED DECEMBER 2024

Since publication of the report in September 2024, AIM for Climate has announced significant accomplishments.

At COP29, AIM for Climate partners turned ambition into action, driving climate-smart agriculture and food systems innovation to tackle the climate crisis, build resilience, and deliver co-benefits for people and the planet. Building on a record year at COP28, investments surged from \$17 billion to an unprecedented \$29.2 billion, over a 2020 baseline. The addition of the final cohort of 52 Innovation Sprints, bringing the total to 129, further underscores AIM for Climate's impact. With AIM for Climate expanding from 600 to over 800 partners worldwide, the initiative reflects the urgency and strength of its mission.

The investment increase comprises \$16.7 billion from Government partners and \$12.5 billion from the accelerated investments of 129 Innovation Sprint Partners, driving change in climate-smart agriculture and food systems. The growing number of high-impact, private-sector, and public-private partnership-led projects deliver solutions to today's climate and food challenges. Aligned with COP29's priorities of climate finance, emissions reduction, and developing adaptive solutions for climate-related loss and damage, these initiatives focus on one or more of AIM for Climate's innovation sprint focal areas: Smallholder Farmers in Low- and Middle-Income Countries; Emerging Technologies; Agroecological Research; and Methane Reduction.

These announcements show the tremendous capability of the AIM for Climate partner network when united

around a common goal. Despite its success, our work is not done. In the initiative's final year, it is critical to harness the momentum of successes to institutionalize lasting change toward a food-secure future.

On the margins of COP29, the United States and the United Arab Emirates hosted the 3rd AIM for Climate Ministerial in Baku, Azerbaijan. This high-level dialogue welcomed 16 partner countries and representatives from AGRA, Atlas Agro, CGIAR, Inter-American Institute for Cooperation on Agriculture (IICA), and the United Nations Foundation. Participants learned more about the four key recommendations in the AIM for Climate Report and offered resounding support.

In 2025, AIM for Climate, in partnership with the United Nations Foundation (UNF), will continue engaging partners to educate members on and advocate for the four recommendations in the AIM for Climate Report: *Cultivating Transformative Investments in Climate-Smart Agriculture and Food Systems Innovation*, with near term emphasis on the inclusion of climate-smart agriculture and food systems innovation in the design and implementation of nationally determined contributions. During the first half of the year, the UNF will organize a series of regional dialogues designed to share information and provide support to low- and middle-income country governments as they prepare their next NDC submissions. Each dialogue will be tailored to specific regional opportunities for cost-effective investment in climate-smart agriculture

and food systems innovation and will encourage collaboration across agriculture, environment, and other ministries. For more information about the regional dialogues, contact climateenvironment@unfoundation.org.

At COP29, the Agriculture Innovation Mechanism for Scale (AIM for Scale) announced its first-ever groundbreaking Innovation Package aimed at providing weather information to help farmers adapt to the impacts of climate change. At COP 29, Her Excellency Dr. Amna al Dahak, Minister for Climate Change and Environment of the United Arab Emirates, welcomed the launch of AIM for Scale following the achievements of the AIM for Climate platform, saying: "Only three years ago at COP26, the UAE and the United States of America launched AIM for Climate to mobilize investments in food systems innovation worldwide. Our success has been truly transformative. Today, with the launch of AIM for Scale, we are accelerating our efforts to find highly promising, climate-friendly agricultural innovations and breaking down barriers to their scaling."

AIM for Scale, launched by the International Affairs Office of the UAE Presidential Court and the Bill

and Melinda Gates Foundation, in partnership with the Innovation Commission for Climate Change, Food Security, and Agriculture, designed an AIM for Scale Weather Package to empower the generation and dissemination of weather forecasts to hundreds of millions of farmers. The Package recognizes the transformative potential of AI-supported weather forecasting to help national meteorological and hydrological services (NMHS) produce high-quality, farmer-centered forecasts. Co-producing and disseminating these forecasts to millions of farmers can build resilience and support adaptation as climate change makes weather patterns less predictable. This process will build on previous efforts and consider varying needs across countries, while emphasizing gender equity and inclusion to ensure broad and equitable impact. Future Innovation Packages will expand efforts to scale additional solutions addressing the interconnected challenges of climate change, food security, and agriculture. AIM for Climate partners interested in learning more about the AIM for Scale Weather Package or other future Innovation Packages may contact info@aimforscale.org and visit <https://weather.aimforscale.org/>.

By the numbers at COP 29

\$29.2B



Building on a record year at COP28, investments surged from \$17 billion to an unprecedented \$29.2 billion

\$16B+

FROM
GOVERNMENT
PARTNERS

\$12B+

FROM
INNOVATION
SPRINT PARTNERS

129

Total Innovation
Sprints



WITH

52

Announced
at COP 29



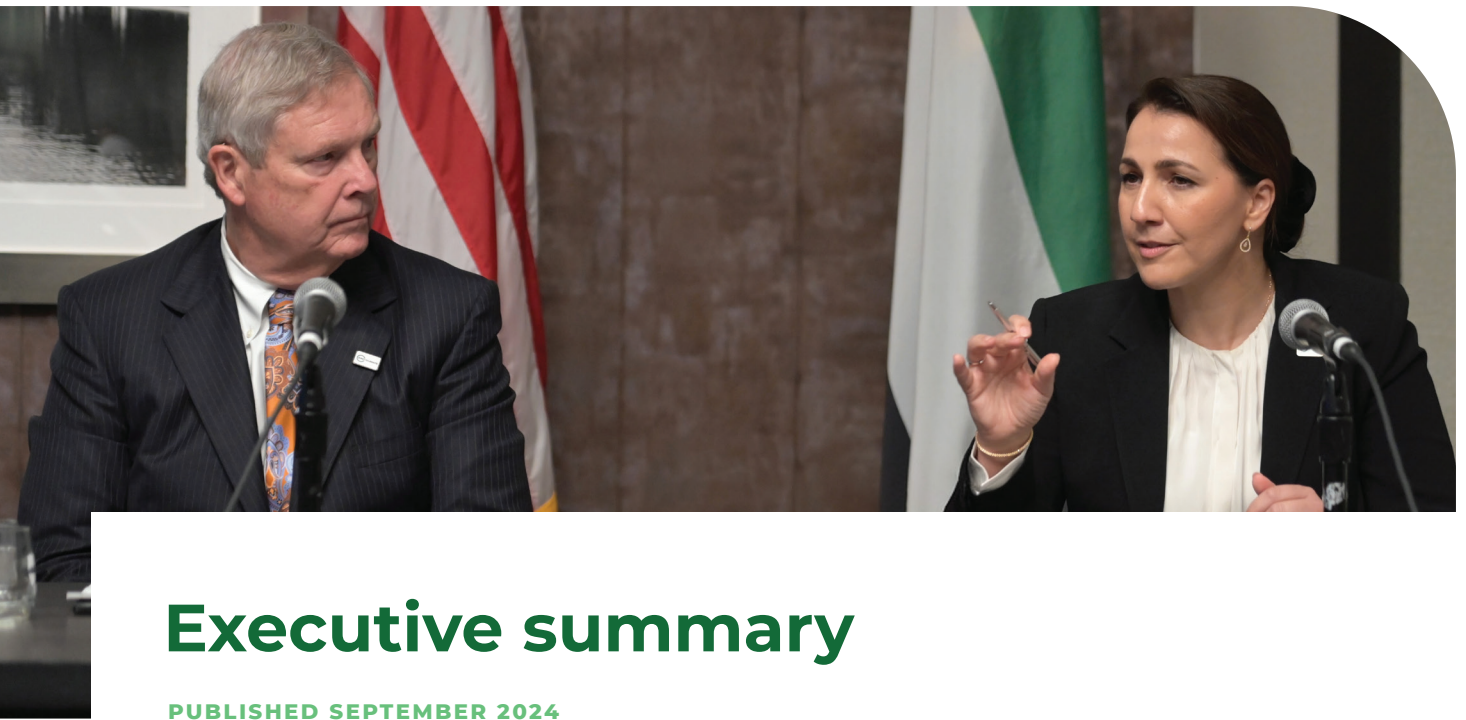
AIM for Climate
expanding from

600

TO

800+

PARTNERS WORLDWIDE



Executive summary

PUBLISHED SEPTEMBER 2024

The world faces extraordinary urgency to make agriculture and food systems more resilient to climate change and to lower the greenhouse gas emissions they generate. Investments that enable innovation, especially agricultural research and development, by agricultural producers and value chain actors are critically needed to promote agriculture and food systems transformation that limits global warming below 1.5°C and keeps the Sustainable Development Goals within reach. Extensive evidence supports investment in climate-smart agriculture and food systems innovation to cost-effectively accelerate economy-wide sustainability and resilience, especially in the agriculture and food sectors.¹

The Journey

In 2021, the Governments of the United States and United Arab Emirates embarked on a journey to build a global coalition to enable transformative change at the intersection of climate change and food security. Together, the U.S. and UAE launched the Agriculture Innovation Mission for Climate (AIM for Climate²) at the 26th United Nations Climate Change Conference in Glasgow (COP 26). AIM for Climate's goal is to increase and accelerate global innovation³ in agriculture and food systems in support of climate action. AIM for Climate partners are focused on driving more rapid and transformative climate action in the agricultural sector, empowering agricultural

innovation to be part of the solution to address the climate crisis, build resilience to its impacts, and create co-benefits of climate action in all countries. In just three years, AIM for Climate and its growing network of more than 600 partners,⁴ including 56 countries, have mobilized \$17 billion in increased investment in climate-smart agriculture and food systems innovation over a 2020 baseline.

Power of Partnerships

AIM for Climate partners are the catalysts that transform ideas into action and, when they come together, they create partnerships that are the driving force behind the success of AIM for Climate. Every partner brings distinct strengths—whether it's specialized expertise, critical resources, or key networks—that collectively drive the initiative forward. The individuality of each partner plays a crucial role in overcoming obstacles and seizing opportunities that would be insurmountable alone. AIM for Climate partner contributions not only enhance the initiative's capacity for success, but they also ensure that the results are comprehensive and sustainable. In the end, it is the dedication and effort of each individual partner—government, innovation sprint, and knowledge⁵—that transform ambition into achievement.

By uniting around a shared goal, AIM for Climate partners have formed partnerships⁶ that have enabled the initiative to move faster



and push farther than would ever be possible through the actions of individual partners alone. AIM for Climate partnerships have fostered innovation, more effective problem-solving, and a broader impact. In collaboration, diverse ideas are not only realized more rapidly, but the reach and sustainability of the results are amplified — **confirming that together, we can always achieve more.**⁷

Next Steps

Despite tremendous success, our work is not done. AIM for Climate is a five-year initiative (2021–2025) and now, in its fourth year, it is critically important for partners to work together toward institutionalizing progress. AIM for Climate partners are invited to harness the momentum of our successes by unlocking innovation — the key to long-lasting change — not just to sustain progress, but also to accelerate toward a food-secure future and a world where climate change no longer poses an existential threat. **Together, we can move farther, faster.**

This report commemorates collective action by AIM for Climate partners, encourages institutional change, and enables all AIM for Climate partners — government, innovation sprint, and knowledge — to persist in making critical efforts for years to come. As AIM for Climate prepares to sunset in 2025, this report provides recommendations for partners to embrace and champion in 2025 and beyond, to help ensure that we achieve a world where hunger does not exist, communities thrive, and our planet heals.

By the numbers at COP 28

OVER \$17B

More than \$17 billion total increased investment in climate-smart agriculture and food systems innovation by its partners.

\$12B+
FROM
GOVERNMENT
PARTNERS

\$5B+
FROM
INNOVATION
SPRINT PARTNERS

78 **27**
AND
Innovation Sprints — Announced at COP 28

Innovation Sprint Partners working across four focal areas:

SMALL-HOLDER FARMERS IN LOW- AND MIDDLE-INCOME COUNTRIES

EMERGING TECHNOLOGIES

AGROECOLOGICAL RESEARCH

METHANE REDUCTION



RECOMMENDATION 1



Enhance inclusion of climate-smart agriculture and food systems innovation in NDCs design and implementation

This is a strategic moment in time to align actions taken by AIM for Climate partners with Parties’ obligation under the Paris Agreement to prepare, communicate, and maintain successive nationally determined contributions, or NDCs.⁸

Parties to the Paris Agreement commit to update their NDCs every five years, with the next update due in February 2025. As markers of government intentions, NDCs create the base for policy change and can serve as signals for investment in climate-smart agriculture and food systems innovation. Yet, many essential types of agriculture and food systems innovation are only modestly included in modeling and implementation plans for current NDCs.⁹ Incorporating climate-smart agriculture and food systems innovation in NDCs’ design and implementation aligns with and supports the outcome of the first global stocktake¹⁰ adopted by Paris Agreement Parties at the 28th UN Climate Change Conference in 2023. The global stocktake outcome encourages Parties to come forward in their next NDCs with “ambitious, economy-wide emission reduction targets, covering all greenhouse gases, sectors and categories and aligned with limiting global warming to 1.5°C” and recognizes the need to significantly scale adaptation finance beyond doubling, to meet urgent and evolving needs. The UAE Consensus,¹¹ coupled with the COP 28¹² UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action,¹³ which has been endorsed by 160 Parties, provides a clear path for future action and progress.

Decision-makers in all governments can commit to increasing investment in climate-smart agriculture and food systems innovation as part of the implementation of NDCs and other long-term national strategies. The formulation and implementation of NDCs offer a distinct opportunity to strengthen investment in and support for climate-smart agriculture and food systems innovation that will undergird efforts to transform agriculture and food systems.

NDCs are at the heart of the Paris Agreement and the world’s ability to achieve global climate goals. NDCs embody efforts by each country to reduce net national greenhouse gas (GHG) emissions. Many also include goals related to efforts to adapt and build resilience to the impacts of climate change. National governments seeking to increase their climate ambition for agriculture and food systems can use NDCs and other national planning tools to steer domestic resources, international partners, and climate finance toward priority actions.

While the process of enhancing and implementing NDCs will reflect specific national circumstances, every country can benefit from a range of actions to bolster transformative agriculture and food systems innovation. The AIM for Climate initiative urges all countries to consider the following strategies as they develop NDCs:¹⁴

- **Take a holistic approach** to climate-smart agriculture and food systems by investing in a balanced way across multiple, mutually reinforcing forms of innovation including technology development, capacity building, sectoral support systems, market infrastructure, and financial systems. (Annex 2 presents evidence supporting investment in seven major innovation categories.)
- **Cultivate stakeholder convergence** on the importance and feasibility of new policies and investments and **enrich capabilities for locally led innovation** among in-region researchers, producers, extension advisors, agri-entrepreneurs, public officials, and local financial institutions.
- **Pursue national innovation priorities** through targeted, evidence-based investments in existing agricultural value chains, Research and development (R&D) systems, and other **national assets**.
- **Co-invest carefully** to deliver stable funding for national institutions, achieve long-term climate goals, and equitably allocate risks and benefits.

Decision-makers in all governments can commit to increasing investment in climate-smart agriculture and food systems innovation as part of the implementation of NDCs and other long-term national strategies.



Be a champion for climate-smart agriculture and food systems innovation in NDCs

GET READY



Develop Investment Case

Develop an investment case for measures that would stimulate investment in climate-smart agriculture and food system innovation.

Example: Together with key domestic and international partners, compile relevant data to estimate benefits, costs, and ROI, drawing on resources such as RIAPA, MAFAP, and Adaptation Atlas.

AND



Co-develop Messages

With key stakeholders, co-develop messages, anchored in national objectives, near-term priorities, and long-term trajectories.

Example: Cultivate a common outreach strategy and materials such as infographics, two-pagers, and 'pitchdecks.'

GET A SEAT AT THE TABLE



Mobilize Advocates

Mobilize advocates to share messages and the investment case through subnational networks, national dialogues, and international events.

Example: Engage in COP 16, COP 29, and multi-stakeholder events convened by international initiatives.

AND



Engage through Established Mechanisms

Introduce the investment case and proposed measures in established NDCs' development mechanisms.

Example: Agriculture ministry staff build connections with national NDC focal point and counterparts in other ministries, and actively engage in NDC dialogues, official meetings, and drafting processes.

GET A HEAD START



Prepare for Implementation

Cultivate diverse partners and solicit technical support to prepare for implementation.

Example: Convene meetings among constituencies and potential supporters and make use of international resources such as the NDC Partnership and TCC support unit.

AND



Pursue Financial Support

As proposed measures gain traction, pursue relevant financial support for implementation.

Example: Convene discussions with concessionary and commercial funders.



RECOMMENDATION 2



Normalize increased investments made in support of AIM for Climate as new budgetary baselines

As of this report, AIM for Climate partners have mobilized a \$17 billion increase in climate-smart agriculture and food systems innovation over a 2020 baseline.

The amount is comprised of \$12 billion by government partners and \$5 billion from innovation sprint partners. This surge of investment in climate-smart agriculture and food systems innovation is vital for

WITHOUT CONTINUED SUPPORT, EARLY BREAKTHROUGHS MAY STALL AND POTENTIAL ADVANCEMENTS COULD BE LOST.

driving innovation in a sector that is essential to global food security, economic prosperity, and sustainability. Surging and maintaining a new baseline of investment are crucial because, while an initial boost accelerates innovation, sustained funding ensures long-term growth and stability.

Without continued support, early breakthroughs may stall and potential advancements could be lost. By rapidly increasing and maintaining higher levels of investment, we can accelerate the development of advanced production techniques, sustainable practices, and resilient food systems. Together, this ensures that emerging technologies are not only developed but are also scaled to meet the growing demand for food in an efficient and sustainable manner. This approach creates a foundation for steady progress, allowing new ideas to mature and scale over time, leading to lasting impact.

Achieving productive, sustainable, and resilient agriculture and food systems requires context-specific innovation in many forms, led by a constellation of stakeholders.¹⁵ Estimates are very high for the overall return on investment (ROI) in agricultural R&D,¹⁶ yet insufficient and imbalanced investment across categories of innovation and across regions has hampered sustainable transformation of agriculture and food systems. Despite technological progress in several areas,



500M

CLIMATE CHANGE INCREASES PRODUCTION RISKS FOR THE 500 MILLION SMALL-SCALE FARMERS WHO ARE DRAMATICALLY UNDERSERVED BY RESEARCH AND DEVELOPMENT INVESTMENTS.

climate-smart productivity gains at scale will require greater support to producers and value chain actors in adopting appropriate technologies and practices.

For many countries, important arenas for investment may include some or all of the following:

- Enabling national agricultural research institutions to fully deliver on scientific priorities.
- Ensuring that public-private R&D partnerships commercialize research outputs that generate public value.
- Delivering technical and financial support for producers to effectively access climate-smart inputs and remunerative marketing opportunities.
- Building out infrastructure for reliable, efficient agricultural value chains.
- Steering public and private capital flows, including sectoral subsidies, toward co-investment in more sustainable and resilient agriculture and food systems.

Agricultural production systems and value chains across the world vary immensely,¹⁷ and every country has distinct knowledge and technology needs.¹⁸ National governments are major investors in agricultural R&D,¹⁹ but many lower-income countries are unable to mobilize sufficient resources²⁰ and the capacity of donor governments to fill this gap is constrained by competing demands related to humanitarian crises and geopolitical conflicts.²¹ This is especially problematic as climate change increases production risks for the 500 million small-scale farmers who supply one-third of the world's food

Rather than limiting the surge in investment for a five-year period, normalizing this level of investment as the new baseline beginning in 2026 could bolster efforts by partners seeking to increase their climate ambition for agriculture and food systems.



and are dramatically underserved by research and development investments.²² Further, adoption by small-scale producers can be quite low²³ because of barriers ranging from inadequate technological feasibility and needs assessment to insufficient delivery mechanisms and technical support.²⁴

Rather than limiting the surge in investment for a five-year period, normalizing this level of investment as the new baseline beginning in 2026²⁵ could bolster efforts by partners seeking to increase their climate ambition for agriculture and food systems. This is especially the case for government partners that intend to use NDCs and other national planning tools to steer domestic resources, international partners, and climate finance toward priority actions. Innovation sprint partners can expand partnerships, continue to increase investment, and engage in public-private partnerships. Working together, we can always achieve more.





RECOMMENDATION 3



Build global partnerships to overcome challenges and scale agricultural innovation

As environmental and economic disruptions proliferate, global prosperity and food security rely fundamentally on sustainable and resilient agriculture and food systems.

If achieved at global scale, agriculture and food systems transformation promises very significant socioeconomic and environmental benefits in return for investments under 0.4% of global GDP.²⁶ When in-region institutions and local stakeholders have access to relevant knowledge, technologies, and resources, they can lead resilience-oriented

WHEN IN-REGION INSTITUTIONS AND LOCAL STAKEHOLDERS HAVE ACCESS TO RELEVANT KNOWLEDGE, TECHNOLOGIES, AND RESOURCES, THEY CAN LEAD RESILIENCE-ORIENTED INNOVATION.

innovation.²⁷ When socio-technical barriers are lowered for cost-effective mitigation measures, producers and value chain actors can take steps to reduce GHG emissions.²⁸

In its paper “Priority innovations and investment recommendations for COP 28,”²⁹ the Innovation Commission for Climate Change, Food Security

and Agriculture³⁰ identified multiple innovation domains with substantial co-benefits, rigorous evidence of impact, value for money, and a clear pathway to scale in low- and middle-income countries (LMICs). Nevertheless and despite the readiness and impact potential of these and other innovation domains, the necessary conditions to promote their adoption and uptake are often hampered by various market failures, institutional constraints, and other barriers.

For example, governments seeking to accelerate climate-smart transitions must carefully consider which investments can stimulate climate-smart innovation at the requisite scale and how they can secure continuous investment over the long term. For some national research funders, the need to make policy trade-offs may lead to underinvestments in bringing innovations to scale simply because of the inherent riskiness of such undertakings. Alternatively, while upstream research and technology development is the primary focus of global investment in agricultural innovation, outsized investments by a few well-resourced national funders can inadvertently skew the innovation landscape. For example, promoting widespread adoption of a limited number of improved crops would not generate a diverse



crop portfolio necessary to deliver climate-smart solutions across different agroecological contexts. Further, there is insufficient focus on creating or scaling downstream innovations in markets, infrastructure, financial systems, policies, and other domains.³¹

Whole-of-government coordination processes such as preparation of NDCs and underlying policy planning exercises can help steer, calibrate, and moderate such dynamics over the medium term. But scope remains for more short-term global collective action to focus attention and resources toward broadly scaling up climate-smart agriculture innovations for the public good, particularly in LMICs.

At the broadest level, global development financiers can and do play this role, and some international specialized institutions, including CGIAR,³² can create high social returns on investments

in agricultural innovation. This activity notwithstanding, no single development program or initiative focuses specifically on sourcing scalable agricultural innovations from the global community and developing the means—the theory of change, broad-based partnerships, and funding modalities—to enable them to scale in practical terms.

Faced with a few existing institutional options to play this overarching coordination role, one approach for overcoming barriers to scaling climate-smart agricultural innovations could be the creation of a vertical fund-style platform to mobilize a global collective (funding, policy action) to solve clear shortcomings in bringing agricultural innovations to scale in developing countries. The global health sector has successfully pioneered the use of vertical funds through the creation of Gavi, the Vaccine Alliance and the Global Fund to Fight AIDS, Tuberculosis and Malaria. By establishing evidence-based external advisory panels and related operational

THERE IS INSUFFICIENT FOCUS ON CREATING OR SCALING DOWNSTREAM INNOVATIONS IN MARKETS, INFRASTRUCTURE, FINANCIAL SYSTEMS, POLICIES, AND OTHER DOMAINS.

A new initiative announced at COP 28, called AIM for Scale, will seek to build upon AIM for Climate's success and legacy by experimenting with novel forms of mobilizing global collective action to overcome barriers and support scaling up agricultural innovations for farmers and other food systems actors.



teams focused on solving specific challenges, these organizations have been able to make headway on developing and scaling health innovations that had been deemed extremely complex and difficult. While valid criticisms exist of this model, results achieved by Gavi and the Global Fund with respect to scaling are compelling³³ and their efforts complement more comprehensive attempts to improve health systems.

Moreover, while agriculture and health are disparate fields, they share important similarities: Advancements in innovation uptake and adoption in both sectors are driven by the generation and documentation of scientific evidence while they are constrained by a range of heterogeneous domestic factors (needs, policies, practices/customs) as well as large public financing gaps (which can be overcome by private sector funding).

A new initiative announced at COP 28, called AIM for Scale, will seek to build upon AIM for Climate's success and legacy by experimenting with novel forms of mobilizing global collective action to overcome barriers and support scaling up agricultural innovations for farmers and other food systems actors. Using an evidence-based approach facilitated by external advisory panels of prominent researchers, AIM for Scale will attempt to replicate the success of vertical funds in mobilizing global partnerships to overcome some of the barriers preventing agricultural innovations from successfully scaling up in LMICs.

RECOMMENDATION 4

Scale public-private partnerships



NDCS PROVIDE A PLATFORM TO BRING ALL CLIMATE-RELATED NATIONAL POLICY PRIORITIES TOGETHER, INCLUDING TO PLAN AND IMPLEMENT AGRICULTURE AND FOOD SYSTEMS MEASURES IN A HOLISTIC MANNER.

Public-private partnerships will be essential for effectively implementing measures in support of nationally determined contributions, maximizing benefits of increased national investments, and capitalizing on the AIM for Scale initiative.

Robust national strategies for enhancing agriculture and food systems innovation create a foundation for collaborations with private sector partners that meaningfully contribute to achieving long-term national goals.

NDCs provide a platform to bring all climate-related national policy priorities together, including to plan and implement agriculture and food systems measures in a holistic manner. They are an important mechanism to guide investment toward climate-aligned agriculture and food systems innovation and implementation. Agriculture and food system investment gaps are exacerbated by perceived economic and political risks, especially in lower-income countries.³⁴ An annual agricultural small- and medium-sized enterprises (agri-SME) financing gap exceeding \$100 billion across sub-Saharan Africa and Southeast Asia could be reduced by boosting the financial literacy of agri-SMEs, better quantifying credit risks to empower domestic lenders, and bundling loans and insurance.³⁵ NDCs can best facilitate agriculture and food systems transformation when implementation and investment plans include the identification of concrete finance requirements for activities that reduce climate vulnerability and lower GHG emissions, while delivering benefits for food security, human health, and biodiversity.

The global volume of private capital is massive. However, flow of private sector investment into agriculture and food systems has been limited, especially in LMICs.³⁶ Many banks lack the necessary

experience to serve as effective intermediaries for sustainable finance directed into agricultural value chains.³⁷ While private sector R&D investments have been concentrated in high- and upper-middle-income countries,³⁸ they can make important contributions where large or rapid ROI is within reach.³⁹

Blended finance is a relatively new approach to filling agriculture and food systems funding gaps by de-risking commercial investments with concessional finance from donor countries and philanthropies.⁴⁰ With many potential configurations, efforts to fill investment gaps through blended finance could generate deals that combine capital from private financiers, banks, development finance institutions, sovereign wealth funds, development agencies, multi-donor funds, impact investors, and insurance companies.⁴¹ Before blended finance aspirations can materialize in agriculture and food systems, new approaches are needed to reduce transactions costs, improve technical assistance to funding recipients, and inspire multi-donor co-investment through better demonstration of significantly enhanced outcomes.⁴²

Public-private partnerships and blended finance deals work best when they recognize that commercial imperatives govern the contributions of private companies and financial institutions. When governments have realistic expectations about the roles that private sector partners can play in co-investments, they can negotiate allocation of risks and benefits with their long-term goals in mind.

NDCs are important mechanisms to guide investment toward climate-aligned agriculture and food systems innovation and implementation.



To encourage public-private partnerships, national governments can take several steps:

- Maintain and enhance base funding for national agricultural research institutions to ensure they are fully capable of delivering on national climate science priorities as well as effectively working with international institutions and private companies to collaboratively develop new knowledge and to adapt spillover technologies.
- Establish aspirations and guardrails to ensure that public-private R&D partnerships deliver public value through commercialization of research outputs suited to local biophysical and socioeconomic conditions.
- Solicit public-private partnerships focused on commercialization of national research outputs and other domestic priorities, grounded in quantified investment needs and ROI.
- Monitor cost-effectiveness and benefit allocation from existing and emerging public-private partnerships to continually improve equitable ROI.



ANNEX 1

Country case studies

The examples below illustrate how LMICs have signaled their commitment to investing in climate-smart agriculture and food systems innovation. More detailed case studies for these six countries can be found in *Increasing ambition in nationally determined contributions through agriculture and food systems innovation: Evidence, foundational analysis and recommendations for NDCs*.

BRAZIL



As the world's largest net exporter of agricultural commodities, Brazil has significant vulnerability to extreme temperatures, sea level rise, water scarcity, heavy rainfall, and other effects of climate change. As the world's sixth-greatest GHG emitter, Brazil has many opportunities to mitigate emissions from agriculture and land use change, which constitute 24% and 52% of national GHG emissions, respectively. Since 2000, agricultural productivity in Brazil has increased impressively and sectoral GHG emissions have grown more slowly given significant national sustainability initiatives. In its most recent NDC submission, Brazil commits to a 37% reduction in GHG emissions from 2005 to 2025 as well as adaptation in essential sectors, including agriculture and livestock. Brazil's NDC also notes major national investments, through the ABC Plan, toward sustainable agriculture including "projects of nitrogen fixation, increased accumulation of organic matter (carbon) in the soil, no-till farming, the integration of forest, crops and cattle breeding, agroforestry and forest planting." In its National Adaptation Plan, Brazil underscores the vital role of its national agricultural research institution, Embrapa in developing essential knowledge and technologies for sustainable production.

COSTA RICA



In Costa Rica, key climate change risks to agriculture include unpredictable patterns of seasonal rainfall, spread of pests and diseases, rising temperatures, and extreme weather events. The agricultural sector accounts for over one-third of national GHG emissions. To achieve low-carbon agricultural production that supports both local consumption and export, Costa

Rica's NDC commits to consolidating an agricultural model based on efficiency and GHG emissions reduction and to embracing an innovative circular economy approach. With emphasis on adoption of emission-reducing technologies and adaptive policies and practices, Costa Rica seeks to expand silvopastoral and agroforestry systems by 69,500 hectares, to increase the area of well-managed pasture by 1–2% per year, and to enhance soil organic carbon levels. Technical guidelines and certification standards are specified as a strategy for promoting integration of risk and climate adaptation in agricultural production. Costa Rica's NDC indicates that training programs will be created to connect women, youth, and other marginalized groups to green jobs in regenerative and precision agriculture.

INDONESIA



Indonesia's agriculture sector faces increased drought and fire risks, and yields of key commodities are projected to drop due to rising temperatures and shifting rainfall patterns. Recent policy changes have helped to slow land cover change, which is driven primarily by agriculture and forestry, and have moderated the pattern of high GHG emissions from Indonesia's land sector, which contributed more than two-fifths of national emissions. In its most recent NDC, Indonesia indicates that agricultural productivity and land use planning are key to achieving its national 32% GHG emission reduction target. Referencing the FOLU Net Sink 2030 target of 140 MtCO₂, the NDC notes that policy and enforcement measures will focus on increasing carbon sequestration capacity of land systems and reducing emissions from deforestation, forest degradation, fires, and peat decomposition. Arenas for agricultural innovation mentioned in Indonesia's NDC include improved seeds and cultural practices, integrated cropping calendars, soil and water conservation technologies, land rehabilitation, organic fertilizers, crop protection, manure management for biogas, and cattle feed supplements. Financing schemes and enhanced community capacity for risk management and sustainable utilization of natural resources are also noted.

KENYA



In Kenya, low productivity and heavy dependence on rainfall make agricultural and pastoral systems highly vulnerable to climate change.

Agriculture and land use change account for three-quarters of national GHG emissions. In Kenya's 2022 NDC, mainstreaming climate-smart agriculture, using a value chain approach and focused on productivity gains, is a featured adaptation priority. Emphasizing innovation, efficiency, and commercialization in crop, livestock, and fisheries production, the NDC indicates that sustainable land and resource management, enhanced agricultural extension, insurance, and other safety nets are key elements of building sectoral resilience. Improved risk management related to droughts, floods, and irrigation infrastructure as well as strengthened early warning and climate information services are noted. For a pathway toward low-carbon, climate-resilient development, Kenya's NDC points to land degradation neutrality, nature-based solutions, and other approaches to reduce emissions in croplands and grasslands. Kenya's NDC commits to mobilizing domestic resources to cover 21% of the costs associated with achieving a 32% reduction in national GHG emissions by 2030 and, for the remaining costs, looks to international partners for finance, technology support, and capacity building.

SOUTH AFRICA



South Africa is experiencing more frequent heat waves, longer dry spells, and greater rainfall intensity; meanwhile, temperatures are rising at more than twice the global rate.

Risks to crops, trees, and livestock from climate change and associated pest and disease pressure are growing. Agriculture, which accounts for 57% of water use, is threatened by increasing water scarcity. In its NDC, South Africa notes that wildfires create uncertainties in estimating GHG emissions from the land sector. South Africa's NDC emphasizes climate-smart agriculture, capacity building, and development of early warning

systems to assist small-scale agricultural producers. Overall mitigation targets are described as ranges in annual national GHG emissions that decline over time. In its NDC, South Africa notes the importance of climate finance and other forms of international support to achieve a just climate transition.

VIETNAM



With projected losses above 5% by 2030, Vietnam's agriculture sector is very vulnerable to erratic rainfall, rising temperatures, extreme weather events, and other climate change

impacts. Many of the adaptation gaps identified in Vietnam's NDC focus on finance, including high agricultural insurance costs and low access to financial services and green credit for vulnerable groups. Several of the adaptation strategies specified in the NDC relate to agricultural innovation including improved forecasting of precipitation and plant and animal diseases and redirecting public investment to multipurpose irrigation. Agriculture generates about one-fifth of Vietnam's GHG emissions and is its second-largest source of GHGs. To reduce sectoral GHG emissions, including a 30% reduction in methane emission over 2020 to 2030, Vietnam's NDC emphasizes mitigation through improved management of rice cultivation (e.g., alternating wet and dry irrigation), livestock (e.g., optimized ruminant rations), and organic fertilizers (e.g., composting of agricultural waste). Means of implementation for the agriculture sector include climate insurance for crop production and aquaculture and technology transfer and development of climate-smart crop and livestock varieties. Vietnam's NDC also notes the importance of promoting regional cooperation, increasing adaptive capacity within economic and social systems, and agricultural restructuring based on the natural advantages of specific production areas.

ANNEX 2

Essential innovation investments

Every country has distinct opportunities for increasing productivity, enhancing resilience, and mitigating GHG emissions that require context-specific agriculture and food systems innovation. A more detailed discussion can be found in *Increasing ambition in Nationally Determined Contributions through agriculture and food systems innovation: Evidence, foundational analysis and recommendations for NDCs*.

EVIDENCE INDICATES THE FOLLOWING STRATEGIES, IN SEVEN MAJOR INNOVATION CATEGORIES, ARE RELEVANT FOR ALL COUNTRIES AS THEY DEVELOP NDCs.



RESEARCH & DEVELOPMENT SYSTEMS

Evidence for Investment

- Investments in agricultural R&D lead to improved productivity and economic growth — essential underpinnings of viable climate action — within and across national borders.
- Much of the work of national and international research institutions is aligned with climate objectives. Transformative innovation, however, is hampered by inadequate and imbalanced funding and insufficient collaboration across regions and sectors.
- The private sector can contribute to R&D where large or rapid ROI is within reach.

Recommendations for Measures

- Maintain and enhance base funding for national agricultural research institutions to ensure that they can fully deliver on national climate science priorities while effectively working with international institutions and private companies to collaboratively develop new knowledge and adapt spillover technologies.
- Establish goals and guidelines to ensure that public-private R&D partnerships deliver public value through commercialization of research outputs that are tailored to local biophysical and socioeconomic conditions.
- Mandate national mechanisms for comprehensive assessment of R&D impacts and gaps focusing on productivity, resilience, and GHG emissions, while also considering socioeconomic and biodiversity objectives.



INFORMATION SYSTEMS

Evidence for Investment

- New types of data gathering and analysis have improved the information landscape in agriculture and food systems. Access and benefits, however, are not yet equally shared.
- Meaningful progress will rely on improved governance systems that build trust, facilitate equitable data sharing, and garner steady funding streams.

Recommendations for Measures

- Continue and enhance data gathering and data sharing related to agricultural yields, soil and water quality, agrobiodiversity, greenhouse gas emissions, food security, market activity, labor, and other environmental and socioeconomic dimensions of agriculture and food systems through national programs and international partnerships and translate the data into meaningful and usable information for producers and value chain actors.
- Mandate whole-of-government mechanisms for tracking and assessing the impact of agriculture and food system policies and programs to better understand how these help or hinder climate-aligned sectoral transitions, especially for vulnerable, small-scale production systems.
- Participate in international initiatives to integrate long-term national datasets with new measurement and analysis tools to build more accessible and actionable information resources that support agricultural management, market planning, and policymaking while establishing robust protocols for data ownership, sharing, and use.



ON-FARM PRODUCTION

Evidence for Investment

- Technological progress has not yet shrunk yield gaps, increased agricultural resilience, or reduced GHG emissions.
- Climate-smart productivity gains will depend on enhanced, sustained, and demand-led investment in supporting producers and value chain actors to adopt appropriate technologies and practices.

Recommendations for Measures

- Specify national efforts to address gaps in agricultural productivity, resilience, and GHG mitigation through validated technological and socioeconomic interventions.
- Articulate concrete plans for enhancing demand-led technical support for on-farm innovation by underserved producers.
- Mandate cross-ministry collaboration on needs assessment and program development to anticipate and respond to climate change impacts, GHG emissions, biodiversity loss, and natural resource degradation.

Essential innovation investments



POST-HARVEST HANDLING

Evidence for Investment

- Due to prevailing inefficiencies across complex, multilevel food supply chains, food loss and waste generate GHGs and increase vulnerability at large scale.
- With encouragement by innovative national policies, food loss and waste could be significantly reduced through careful assessment and tactical deployment of appropriate interventions that cost-effectively increase efficiency and augment domestic food supply.

Recommendations for Measures

- Specify planned investments to improve storage, transport, processing, and marketing infrastructure in agricultural value chains.
- Identify opportunities to improve utilization of organic waste streams and better meet agricultural fertilization needs.
- Mandate relevant agencies to monitor food loss and waste, as well as associated GHG emissions and resilience impacts, to better inform and implement tailored, cost-effective interventions.
- Establish mechanisms for enhanced communication among input suppliers, producers, and market actors to reduce post-harvest loss through aligned capabilities for meeting production timing, quantity, and quality requirements.



MARKETS

Evidence for Investment

- Most input supply chains do little to facilitate climate-smart agricultural production, and few market signals sufficiently incentivize producers to adopt new approaches.
- Changes in sectoral subsidies and improved market price transparency are critical to reorienting agricultural value chains.

Recommendations for Measures

- Specify plans to deliver technical and financial support for producers to access climate-smart agricultural inputs and to effectively participate in agricultural markets.
- Build out reliable storage, transport, and energy networks that better enable agricultural producers to access remunerative marketing opportunities.
- Establish platforms to enhance agricultural product aggregation through coordination across value chain actors including small-, medium-, and large-scale traders.
- Mandate relevant agencies to increase market transparency through domestic initiatives and international partnerships.



FINANCE

Evidence for Investment

- Painful constraints on donor and government budgets and limited private sector activity are slowing the flow of investment needed to test and validate new finance models for climate adaptation and mitigation in agriculture and food systems.
- Greater coordination among governments and across sectors can increase financial fluency with climate-smart investment needs and opportunities.

Recommendations for Measures

- Specify plans for steering right-sized finance to small- and medium-sized agri-entrepreneurs.
- Participate in regional initiatives to improve quantification of opportunities and risks associated with climate-smart investment in agricultural value chains and to enhance sectoral fluency within local financial systems.
- Establish aspirations and guardrails for climate finance and blended finance approaches to filling agriculture and food system funding gaps.



POLICY

Evidence for Investment

- Of the wide range of policy tools available, many are underutilized for steering toward sustainable, resilient, and equitable agriculture and food systems.
- Holistic, transformative national policies struggle to emerge in the context of siloed ministries and stakeholders' divergent visions.
- While some policies can deliver win-win outcomes, many will require reallocating costs and benefits.

Recommendations for Measures

- Mandate whole-of-government coordination to steer existing public and private capital flows, including sectoral subsidies, toward co-investment in more sustainable, resilient agriculture and food systems.
- Identify and deploy specific policy tools to more effectively incentivize climate-smart transitions in distribution, transport, processing, manufacturing, retail, and food services components of agricultural value chains.
- Articulate a national approach for navigating trade-offs associated with climate-smart policies including compensation mechanisms for imposed costs and safety nets for vulnerable social groups.

ANNEX 3

Select investment impacts from AIM for Climate innovation sprint partners

Cotton growers who use soil health systems have increased net farm income by

\$98 PER ACRE IN GEORGIA

\$157 PER ACRE IN TEXAS

AND

Reduced emissions by an average of

0.43mt

Of carbon dioxide equivalent (CO₂e) per acre per year due to reduced use of fuel, fertilizer, and amendments.

30%

By reallocating excess fertilizers from overapplication regions (through the adoption of better fertilizer management technologies) to regions with low-application globally, models indicate that global crop yield can be increased by 30% with huge implications for reducing GHG emissions.

Three new lowland tropical drought tolerance donors for maize breeding have been approved for public release.

In Mexico, 386 wheat farmers have adopted variable rate nitrogen application based on a drone-captured vegetative index, resulting in reducing unnecessary nitrogen application on

8,300

HECTARES

Integration of legume and organic manure with inorganic fertilizer in rice, wheat, and maize production saves about

750,000 TONS OF NITROGEN IN INDIA

60,000 TONS OF NITROGEN IN ETHIOPIA

15,000 TONS OF NITROGEN IN MALAWI

Without reducing crop yield over 1–2 years.

250M

Trees have been planted by 2.1 million smallholder farmers.

33K tons

In 2022, products helped farmers reduce synthetic fertilizer use by nearly 33,000 tons, preventing emission of 225,000 metric tons of carbon dioxide equivalent.

\$7B

Empowering farmers to use next-gen weather intelligence is projected to result in additional income of \$7 billion to help them adapt to the rapidly changing climate.

1M

Local weather intelligence is being provided to 1 million farmers in Kenya through biweekly texts containing crop advice.

14M tons

Adoption of Nutrient Expert, a fertilizer management tool, in the rice-wheat production region of India resulted in 14 million additional tons of grain using 1.44 million fewer tons of nitrogen, a CO₂e GHG reduction of 5.34 million tons.

Research is being conducted in sorghum, cowpea, rice, cassava, and common bean to identify donor germplasm genetic variation for climate adaptation breeding.

\$41M

In funding has advanced sustainable protein innovation, including international support for open access research.

Over the next 10–15 years, incorporation of genetic variation in drought and heat tolerance breeding will provide new seed varieties to millions of farmers with rainfed agricultural operations.

ENDNOTES

- 1 UN Foundation and Climate Focus. 2024. Increasing ambition in Nationally Determined Contributions through agriculture and food systems innovation: Evidence, foundational analysis and recommendations for NDCs.
- 2 AIM for Climate Website: www.aimforclimate.org
- 3 Defined as research, development, demonstration, and deployment.
- 4 AIM for Climate Partners: <https://www.aimforclimate.org/#partners>
- 5 AIM for Climate Terms of Reference: https://www.aimforclimate.org/media/q0jddyv4/2022_aim4c_tor.pdf
- 6 AIM for Climate Innovation Sprints: <https://www.aimforclimate.org/innovation-sprints/>
- 7 AIM for Climate Innovation Report video series: <https://www.aimforclimate.org/media/>
- 8 To learn more about NDCs, please visit: <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs>
- 9 Recent analysis found that 90% of existing NDCs mention at least one category of agriculture and food systems innovation. Of these 151 countries, almost all (95%) refer to innovation in on-farm production, 74% refer to research and development (R&D) systems; 71% refer to information systems, 33% refer to post-harvest handling, 56% refer to agricultural markets, 54% refer to finance, and 68% refer to policy. (Source: UN Foundation & Climate Focus, 2024)
- 10 Available: <https://unfccc.int/topics/global-stocktake>
- 11 Available: <https://cop28.com/UAEconsensus>
- 12 COP 28 refers to the United Nations Climate Change Conference that took place in Dubai, United Arab Emirates, from 30 November to 12 December 2023.
- 13 Available: <https://www.cop28.com/en/food-and-agriculture>
- 14 UN Foundation and Climate Focus. 2024. Increasing ambition in Nationally Determined Contributions through agriculture and food systems innovation: Evidence, foundational analysis and recommendations for NDCs.
- 15 Hellin J, Fisher E, Bonatti M. 2024. Transforming agricultural research and development systems to meet 21st century needs for climate action. *Frontiers in Sustainable Food Systems*, 8:1398079.
- 16 Alston JM, Pardey PG, Rao X. 2020. The payoff to investing in CGIAR research. Arlington, Virginia: SOAR Foundation.
- 17 Romero-Silva R, Akkerman R, de Leeuw S. 2024. Understanding and improving global agri-food supply chains in an interconnected world: A systems approach. Burleigh Dodds Science Publishing. 426 p.
- 18 Conti C, Hall A, Percy H, Stone-Jovicich S, Turner J, McMillan L. 2024. What does the agri-food systems transformation agenda mean for agricultural research organisations? Exploring organisational prototypes for uncertain futures. *Global Food Security*, 40: 100733. FOLU. 2024. Country platforms. Food and Land Use Coalition. Accessed 25 June 2024. Cassman KG, Grassini P. 2020. A global perspective on sustainable intensification research. *Nature Sustainability*, 3: 262–268.
- 19 Dalberg Asia. 2021. Funding agricultural innovation for the Global South: Does it promote sustainable agricultural intensification? Colombo, Sri Lanka: Commission on Sustainable Agriculture Intensification.
- 20 Okem AE, Ali E, Chevallier R, et al. 2023. How can Africa attain climate resilient development? Nairobi, Kenya: African Group of Negotiators Expert Support (AGNES). Policy brief no. 20. 11 p. Fuglie KR. 2018. Capital, R&D spillovers, and productivity growth in world agriculture. *Appl. Econ. Perspect. Policy*, 40: 421–444.
- 21 Perera O, Smaller C, El Harty K, Lefebvre L. 2024. Unleashing the catalytic power of donor financing to achieve Sustainable Development Goal 2. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. 48 p.
- 22 With Science We Can: Investing in a Food, Nutrition & Climate Secure Future — Summary. 2023. CGIAR System Organization: Montpellier, France.
- 23 Ishtiaque A, Krupnik TJ, Krishna V, et al. 2024. Overcoming barriers to climate-smart agriculture in South Asia. *Nature Climate Change*. Stevenson JR, Vlek P. 2018. Assessing the adoption and diffusion of natural resource management practices: Synthesis of a new set of empirical studies. Rome: Independent Science and Partnership Council (ISPC).
- 24 Freyer B, Ellssel P, Nyakanda F, Saussure S. 2024. Exploring the off-farm production, marketing and use of organic and biofertilisers in Africa: A scoping study. Report to the European Commission. DeSIRA-LIFT. 254 p.
- 25 2020 + (2021–2025 average annual increase over 2020 baseline) = 2026 baseline.
- 26 Ruggeri Laderchi C, Lotze-Campen H, DeClerck F, et al. 2024. The economics of the food system transformation. Food System Economics Commission, Global Policy Report.
- 27 Tenkouano A, Isah A, Panchbhai A, et al. 2023. Empower climate-resilient smallholder agriculture by investing in African research and innovation. Washington, DC: United Nations Foundation.
- 28 Roe S, Streck C, Beach R, et al. 2021. Land-based measures to mitigate climate change: Potential and feasibility by country. *Global Change Biology*, 27: 6025–6058.
- 29 Available: https://innovationcommission.uchicago.edu/research_briefs/priority-innovations-and-investment-recommendations-for-cop28/
- 30 Available: <https://innovationcommission.uchicago.edu/>
- 31 Hellin J, Fisher E, Bonatti M. 2024. Transforming agricultural research and development systems to meet 21st Century needs for climate action. *Front. Sustain. Food Syst.* 8:1398079; Reardon T, Echeverria R, Berdegue J, et al. 2019. Rapid transformation of food systems in developing regions: Highlighting the role of agricultural research & innovations. *Agricultural systems*, 172: 47–59.
- 32 Alston J, Pardey P, Rao X. 2022. Payoffs to a half century of CGIAR research. *American Journal of Agricultural Economics*, 104(2): 502–529.
- 33 Unitaid, Global Fund. 2023. Unitaid and the Global Fund to Fight AIDS, Tuberculosis and Malaria; BMJ Global Health. 2019.

- 34 Koh H. 2024. 5 myths preventing catalytic capital from going where it's needed. Stanford Social Innovation Review. 10.48558/hfzt-kj97; CSAF. 2023. State of the sector 2023. Council on Smallholder Agricultural Finance. 26 p.
- 35 Perera O, Smaller C, El Harty K, Lefebvre L. 2024. Unleashing the catalytic power of donor financing to achieve Sustainable Development Goal 2. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. 48 p.
- 36 Ruggeri Laderchi C, Lotze-Campen H, DeClerck F, et al. 2024. The economics of the food system transformation. Food System Economics Commission, Global Policy Report.
- 37 CBI. 2024. Transition in action: Agri-food. London, UK: Climate Bonds Initiative. 18 p.
- 38 Dehmer SP, Pardey PG, Beddow JM, Chai Y. 2019. Reshuffling the global R&D deck, 1980–2050. PLoS ONE, 496;14(3): e0213801.
- 39 Depending on the size and nature of their business, companies may undertake short-term, targeted projects (e.g., adapting technologies to regional value chains, testing new service delivery models) or longer-term scientific discovery (e.g., developing novel technologies). Improved crop seeds and livestock breeds have long received public and private investment as important technologies for increasing yield and building climate resilience.
- 40 Convergence. 2023. Blended finance and leveraging concessionality.
- 41 Perera O, Smaller C, El Harty K, Lefebvre L. 2024. Unleashing the catalytic power of donor financing to achieve Sustainable Development Goal 2. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. 48 p.
- 42 Perera O, Smaller C, El Harty K, Lefebvre L. 2024. Unleashing the catalytic power of donor financing to achieve Sustainable Development Goal 2. Global Donor Platform for Rural Development and Shamba Centre for Food & Climate. 48 p.

PICTURE CAPTIONS

Page 1: AIM for Climate launch event at the UAE pavilion during COP 26. L to R: Hana Alhashimi, UAE; Her Excellency Almheiri, Head of the Office of International Affairs in the Presidential Court, United Arab Emirates (UAE) and former UAE Minister of Climate Change and Environment; Thomas Vilsack, Secretary, U.S. Department of Agriculture. Glasgow, Scotland, 2021.

Page 2: 3rd AIM for Climate Ministerial. Baku, Azerbaijan, 2024.

Page 4: AIM for Climate Summit press conference. L to R: Secretary Vilsack, Her Excellency Almheiri. Washington, D.C., United States, 2023.

Page 6: Her Excellency Dr. Amna Al Dahak Al Shamsi, UAE Minister of Climate Change and Environment visiting the International Center for Biosaline Agriculture. Dubai, United Arab Emirates, 2024.

Page 7: AIM for Climate Summit, 2nd AIM for Climate Ministerial. Washington, D.C., United States, 2023.

Page 8: AIM for Climate Summit, 2nd AIM for Climate Ministerial. Washington, D.C., United States, 2023.

Page 11: AIM for Climate event at the U.S. Center during COP 28. L to R: David Livingston, former senior advisor, Special Presidential Envoy for Climate, U.S. Department of State; Dr. Chavonda Jacobs-Young, Under Secretary, Research, Education, and Economics, U.S. Department of Agriculture; Her Excellency Almheiri; Secretary Vilsack; Ertharin Cousin, President and CEO, Food Systems for the Future; Lauren Riley, Chief Sustainability Officer, United Airlines; Ismael Roig, ADM's Regional President of Europe, Middle East and Africa; and Winifred Awinpoya Atanga, COP 28 Youth Climate Delegate, Ghana. Dubai, United Arab Emirates, 2023.



AIM for Climate by the numbers

COP 26

79 PARTNERS

TOTAL

~\$3.8B

WITH 31 GOVERNMENT PARTNERS

AND

~\$200M

WITH 8 INNOVATION SPRINTS

\$4B

COP 27

275 PARTNERS

TOTAL

\$7B

WITH 42 GOVERNMENT PARTNERS

AND

\$1B

WITH 30 INNOVATION SPRINTS

\$8B

SUMMIT

500 PARTNERS

TOTAL

\$10B

WITH 50 GOVERNMENT PARTNERS

AND

\$3B

WITH 51 INNOVATION SPRINTS

\$13B

COP 28

600 PARTNERS

TOTAL

\$12B

WITH 55 GOVERNMENT PARTNERS

AND

\$5B

WITH 78 INNOVATION SPRINTS

\$17B

COP 29

800 PARTNERS

TOTAL

\$16B+

WITH 56 GOVERNMENT PARTNERS

AND

\$12B+

WITH 129 INNOVATION SPRINTS

\$29.2B

CONTACT

For more information, please visit the AIM for Climate website at www.aimforclimate.org and follow AIM for Climate on LinkedIn at [@aimforclimate](https://www.linkedin.com/company/aimforclimate).

For inquiries, please contact info@aimforclimate.org.

 [aimforclimate](https://www.linkedin.com/company/aimforclimate)

 info@aimforclimate.org

