

# CGIAR Climate Impact Platform

Annual Technical Report 2023

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### Disclaimers

This publication has been prepared as an output of the CGIAR Climate Impact Platform. Any views and opinions expressed in this publication are those of the author(s) and are not necessarily representative of or endorsed by the CGIAR System Organization.

### Acknowledgements

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### **CGIAR Technical Reporting 2023**

CGIAR Technical Reporting has been developed in alignment with the <u>CGIAR Technical Reporting Arrangement</u>. This Impact Platform report is a Type 1 report and constitutes part of the broader <u>CGIAR</u> <u>Technical Report</u>. Each CGIAR Impact Platform submits an annual Type 1 report, which provides assurance on Impact Platform progress.

The CGIAR Annual Report is a comprehensive overview of CGIAR's collective achievements, impact and strategic outlook, which draws significantly from the Technical Report products above. For 2023, the Annual Report and Technical Report will be presented online as an integrated product.



#### The CGIAR Technical Report comprises:

- Type 1 Initiative, Impact Platform, and Science Group Project (SGP) reports, with quality assured results reported by Initiatives, Platforms and SGPs available on the CGIAR Results Dashboard.
- The Type 3 Portfolio Performance and Project Coordination Practice Change report, which focuses on internal practice change.
- The Portfolio Narrative, which draws on the Type 1 and Type 3 reports, and the CGIAR Results Dashboard, to provide a broader view on Portfolio coherence, including results, partnerships, country and regional engagement, and synergies among the Portfolio's constituent parts.

### Section 1: Fact sheet and budget

form name	Climate Adaptation and Mitigation Impact Area Platform	
2	Climate Impact Platform	
	Aditi Mukherji (a.mukherji@cgiar.org)	
date	March 2023 – 31 December 2024	
ırce / website	Proposal and System Council meeting documents	

#### EXECUTIVE SUMMARY

Impact Plat

Short name Director Start – end Links to sou documents

The <u>Climate Adaptation and Mitigation Impact Area Platform</u> (Climate Impact Platform) was officially launched with the appointment of a full-time director in March 2023. Though thinly staffed, the director worked closely with different parts of CGIAR and external partners to make good progress in its four areas of work. <u>The Platform</u> first reviewed and mapped climate expertise in CGIAR via <u>a survey</u> to understand CGIAR's existing strengths, capacities, and gaps in climate research. The results were used to develop a <u>searchable database</u> of CGIAR climate experts, which quickly proved useful, for example by enabling CGIAR's Innovative Finance and Resource Mobilization team to readily identify relevant experts for CGIAR-led Green Climate Fund proposals. This survey was complemented by a Platform-led high-level analysis of CGIAR's past climate portfolio to understand trends in its climate research and evidence, to identify focus areas, and to begin to identify research gaps that CGIAR and partners could help to fill. With this better understanding, the Platform then convened a session with scientists to co-develop a nested theory of change.

In 2023, this Platform led the writing of the <u>agriculture chapter</u> of the *Breakthrough Agenda Report 2023: Accelerating Sector Transitions through Stronger International Collaboration.* The UK Foreign, Commonwealth, and Development Office (FCDO) used the recommendations from CGIAR to frame the 2024 <u>priority international actions</u> of 17 member countries of the Agriculture Breakthrough. With new analyses and insights and CGIAR's extensive climate research, the Platform was able to deliver up-to-date evidence-based climate information to decision-makers in a series of high-profile engagements in 2023, including the UN Framework Convention on Climate Change (UNFCCC), the United Nations Food Systems Summit (UNFSS), the Committee on World Food Security (CFS), the Africa Food Systems Forum (AFSF), and the Africa Climate Summit.

The Platform director contributed to the Synthesis Report of the <u>Sixth Assessment Report (AR6)</u> of the UN Intergovernmental Panel on Climate Change (IPCC) and was a part of a team of scientists who <u>launched the report</u> in March 2023 along with the secretary general of the United Nations and the chair of the IPCC.

Through <u>numerous press engagements</u> in top-tier (Reuters, Aljazeera, Inter Press Service), specialized (Mongabay, Climate Analytics, Nutrition Insight), and partner (UN Environment Program) news sites, the Platform raised awareness of the latest climate change science and emerging issues impinging on developing-country agriculture.

The Platform, in close collaboration with teams from CGIAR's Partnerships and Advocacy (P&A) and Communications and Outreach (C&O) global groups, prioritized four negotiation tracks: Global Goal on Adaptation, Agriculture and Food Security, the New Collective and Quantified Goal on Finance, and Loss and Damage. The Platform led CGIAR's engagement in both the UNFCCC Bonn intersessional sessions in June 2023 as well as COP28, where it brought together, synthesized, and tailored CGIAR evidence, including through <u>side events</u>, to inform party and partner discussions in the UNFCCC process — including an influential <u>guest post piece</u> that informed decisions in the <u>Global</u> <u>Goal on Adaptation</u> (GGA).

In 2024, the Platform will launch and energize a climate community of practice comprising global leaders in climate science from within and outside CGIAR. It will synthesize the latest climate evidence of special salience for the world's smallholder food producers. It will inform the new CGIAR portfolio with pragmatic, "multi-solving" solutions. And it will help set the global agenda on climate action. In all of its activities, and at all times, it will work for a just transition to more equitable as well as more environmentally sustainable agrifood systems.

	2022	2023	2024
APPROVED BUDGET <sup>1</sup> »	\$1.02M	\$1.02M <sup>2</sup>	\$0.97M <sup>3</sup>

<sup>1</sup> The approved budget amounts correspond to the figures available for public access through the <u>Financing dashboard</u>. <sup>2</sup> This amount includes carry-over and commitments.

<sup>3</sup> This amount is an estimation of the 2024 annual budget allocation, as of the end of March 2024.





# United Kingdom

Dr Aditi Mukherji, CGIAR Climate Impact Platform Director speaking at the COP28, Dubai UK Pavilion event: How can scientific assessment drive climate action?



### Section 2: Progress against the theory of change and four key functions

# Impact Platform-level theory of change diagram

This is a simple, linear, and static representation of a complex, nonlinear, and dynamic reality. Feedback loops and connections between this Platform and other Initiatives and other Impact Platforms' theories of change are excluded for clarity.



POPrimary OutcomeAAAction AreaIAImpact AreaSDGSustainable Development Goal

**Note:** A summary of Key Functions progress ratings is provided in Section 3.





Despite this being its first year of operations, in 2023 the Platform made considerable progress in advancing three of its four functions described in its theory of change. Platform staff this year helped draft the critical agriculture chapter of the Breakthrough Agenda Report 2023, along with a deep-dive report on seven technological areas, and conducted a thorough analysis of CGIAR expertise and climate-related publications over the last decade. Following this year's initial opportunistic approach, the Platform will take a more

proactive and strategic approach in 2024 that allows for deeper and more diverse syntheses of evidence, more intentional internal coordination, further analyses of capacity gaps, and more productive capacity sharing. The Platform will also develop an engagement plan with CGIAR's Partnerships and Advocacy team to guide and inform CGIAR's engagement in climate action and policy spaces, including those of the UNFCCC.

### Summary of progress by key function

### **KEY FUNCTION 1: FOSTER GLOBAL CRITICAL THINKING**

The Platform took advantage of opportunities for CGIAR to help shape global climate agendas. Two such opportunities were production of the <u>Climate Change 2023 Synthesis Report–Summary for Policymakers</u>, the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), and the processes leading up to the important GGA framework decision made at the UN Climate Change Conference in 2023 (COP28).

Aditi Mukherji, director of the CGIAR Climate Impact Platform, served as the coordinating lead author of the IPCC chapter on water in the IPCC Working Group II and was a core member of the writing team for the IPCC's *Synthesis Report*. She was one of six scientists worldwide to unveil the final *Synthesis Report* alongside Hoesung Lee, IPCC chair of the AR6 cycle and the secretary general of the UN, at a 2023 press conference held in Switzerland on the release of the concluding chapter of the Report.

The Platform also coordinated the writing of the agriculture chapter of the *Breakthrough Agenda Report 2023*, whose objective is to ensure that climate-resilient, sustainable agriculture is the most attractive and widely adopted option for farmers everywhere by 2030. The FCDO used the recommendations from the CGIAR-led *Breakthrough Report* to frame the 2024 priority international actions of 17 countries that have signed on to the Agriculture Breakthrough of the *Breakthrough Agenda Report*. These new analyses and insights as well as current CGIAR climate research informed the Platform's external engagements in 2023, including those at COP28, UNFSS, CFS, AGRF, and the Africa Climate Summit.

The Platform director worked with her IPCC colleagues to develop an authoritative and influential guest post on the Global Goal on Adaptation, <u>What would an ambitious 'global goal on adaptation' look like at COP28?</u>, published by the Carbon Brief in December 2023. The article explains the need for climate action in the agrifood space and was informed by the agriculture chapter of the *Breakthrough Agenda Report 2023*, of which CGIAR was the lead author. The article spelled out ways to set ambitious and measurable targets to operationalize the GGA to increase adaptation support and implementation. Negotiators at the 2023 COP28 in Dubai referred to this blog article and specific wording from it was included in the final text of the UAE Consensus.

### **KEY FUNCTION 2: DEVELOP CGIAR AND PARTNER CAPACITY**

The Platform reviewed CGIAR's climate expertise, focusing on understanding existing strengths and capacities and current gaps in both research and in-house expertise. A Platform-led survey determined how many CGIAR staff self-identified as climate scientists, what their expertise was, and to which CGIAR Initiatives or climate programs they were mapped.

This mapping of CGIAR climate experts was complemented by a Platform-led analysis of CGIAR's past climate portfolio to understand trends in research and evidence and to start identifying gaps that CGIAR and its partners could fill. This high-level analysis reviewed the CGIAR climate portfolio over the past five years (2017–2023) and included a review of all CGIAR scientific publications with climate as part of the subject matter.

With a better understanding of CGIAR's climate scientists — who they are, where they are, what their expertise is, and what they are working on — the Platform convened a three-day workshop that brought together 40 CGIAR scientists who worked together to define the initial drafts of the Climate Platform nested theory of change.

### **KEY FUNCTION 3: ADVISE PORTFOLIO-LEVEL MANAGEMENT/STRATEGY**

In a series of internal consultation sessions, the Climate Platform contributed to the development of CGIAR's new "P25 Portfolio". These consultations delineated the many roles climate action can and should play in agrifood systems and explored ways of strengthening the Platform's coordination and engagements with other CGIAR units, including CGIAR Centers and its four other Platforms.

### KEY FUNCTION 4: AMPLIFY EXTERNAL PROFILE AND PATHWAYS TO IMPACT

In the 2023 UNFCCC process, the Platform prioritized four negotiation tracks: GGA, Agriculture and Food Security, the New Collective and Quantified Goal on Adaptation, and Loss and Damage. It worked closely with scientists as well as with teams from CGIAR's P&A and C&O global groups. The Platform led CGIAR's engagement in the UNFCCC Bonn intersessional sessions in June 2023, ahead of COP28, where it brought together, synthesized, and tailored CGIAR evidence to inform party and partner discussions in the UNFCCC process.

With agrifood systems' issues high on the year's global climate change agenda, CGIAR co-hosted at COP28 the Food and Agriculture Pavilion with the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), and the Rockefeller Foundation. A total of 120 side events were organized over 12 days to showcase CGIAR and partner research and to contribute to the dialogue on the four negotiation tracks identified. The Platform helped in curating the final technical program of the CGIAR at COP28. The Platform developed four position briefs on these negotiation tracks alongside publishing blog articles, <u>media interviews</u>, journal articles, and scientific reports. These materials were influential, with one of the successes being the inclusion of CGIAR messages, evidence, and facts in the GGA track decision.

As mentioned in Section 2 above, having led the writing of the agriculture chapter of the *Breakthrough Agenda Report 2023*, the Platform provided its new insights in a range of subsequent engagements. In these and other ways, as part of its mandate to amplify CGIAR's profile and pathways to impact, the Platform helped to shape the global climate change agenda by contributing influential CGIAR evidence and thought leadership on key climate action-related issues. In 2024, the Platform will continue to identify new partnerships that will enrich CGIAR's climate research and catalyze appropriate climate adaptation and mitigation actions.

To raise awareness of the latest climate change science and emerging issues impinging on developing-country agriculture, the Platform director undertook throughout 2023 <u>numerous press engagements</u> in top-tier (Reuters, Aljazeera, Inter Press Service), specialized (Mongabay, Climate Analytics, Nutrition Insight), and partner (UN Environment Program) news sites and spoke in numerous webinar panels and media interviews with national and global radio stations, podcasts, newspapers, and blog sites.



### A functional climate community of practice (CoP) comprising thematic sub-groups and both CGIAR and non-CGIAR scientists and practitioners is established, for sharing capacity and knowledge across the community.

Following the Platform's CGIAR-wide survey, with responses from almost 600 scientists interested in joining the climate CoP, in early 2024 the Platform will formally launch its CGIAR Climate Community of Practice, which includes a platform where members can share information, consult each other, access expertise and resources, and identify opportunities for joint action.

#### Topical thematic groups on the climate and agrifood systems space are created and collaborate to produce synthesis papers on relevant topics and identify gaps in knowledge for further research and influencing CGIAR's own research portfolio.

Ad hoc groups were created in 2023 to bring together CGIAR and partner evidence on the three priority negotiation tracks under the UNFCCC and COP28: <u>adaptation tracking</u>, <u>climate finance</u>, and <u>a food</u> <u>systems approach</u> (related to the agriculture and food security track). Papers with a strong agrifood systems' perspective were developed for each priority negotiation track in close collaboration with CGIAR Centers and the CGIAR Partnerships and Advocacy global team.

Learning from this process will inform the thematic groups that will be formed in 2024 to continue the work on these issues, as well as additional ones that will respond to country and partner demand.

In developing the CGIAR-led agriculture chapter of the Breakthrough Agenda Report 2023, the diverse group of authors from within and outside CGIAR identified <u>seven groundbreaking technologies</u> as critical to a transition to more sustainable agriculture. The Platform developed a factsheet on each of the seven technologies: (1) optimize fertilizer use and minimize environmental impact; (2) replace some animal-source foods with <u>alternative proteins</u> in highincome countries; (3) reduce <u>food loss and waste</u> in both low- and high-income countries; (4) breed more climate-resilient <u>crops and</u> <u>animals</u> that address the needs and demands of consumers, farmers, and processors; (5) reduce <u>methane emissions from livestock</u>; (6) encourage use of <u>agroecological approaches</u>; and (7) provide <u>digital</u> <u>services</u> that help farmers adapt to climate change while improving their food production.

### The capacities of climate CoPs (internal and external) are enhanced so they are better able to contribute to global critical thinking, international scientific assessments, and climate negotiations.

Internal CoPs will be set up in 2024. In 2023, the Platform sought to learn from some existing communities, networks, and coalitions to identify the most relevant value addition of the CGIAR-led/ facilitated CoPs. These include the CGIAR-led Sharm el-Sheikh Joint Working Group on Agriculture (SSJWA), the UN Foundation-led working group on the GGA, and the UNFCCC-led Climate Resilient Food Systems working group. The Platform's learning from this engagement will inform the capacity-sharing plan of the CGIAR climate CoPs as well as link to existing CoPs, networks, and coalitions.

# A Platform-specific communications and knowledge sharing strategy is set up to disseminate information and knowledge products to diverse audiences.

A communications plan was developed in 2023 and will be fully rolled out in 2024. In 2023, the plan informed CGIAR's engagement, communications, and messaging at COP28. The Platform also uses a SharePoint site and a Microsoft Teams Group to exchange knowledge and strategic thinking. A more specific platform will be procured in 2024 to enable exchanges among members of the CoP and its thematic groups.

### Module 2: Methods and metrics



#### A database and repository of the latest methods, tools, and approaches used in CGIAR's climate change research are curated and shared widely internally and externally.

A high-level assessment was made of existing methods, tools, and approaches used in CGIAR climate change research in collaboration with CGIAR's Portfolio Performance Unit. In 2024, the Platform will work with a consultant expert to dive deeper into these and to develop criteria for categorizing and searching these climate-related methods, tools, and approaches.



On track

### A database and repository of innovative methods and metrics used to measure and track climate action and the impacts of climate change are widely available for internal and external use and dissemination.

As mentioned above, in 2023, the Platform director and other climate change thought leaders and global experts put together a list of proposed methods for measuring adaptation in a <u>guest post</u> published by Carbon Brief. Negotiators at COP28 in Dubai extensively referred to this blog article and some of its wording was used in the final text of the UAE Consensus. Detailing the urgent need for climate action in the agrifood space, this influential article was informed by the agriculture chapter of the *Breakthrough Agenda Report 2023*, of which CGIAR was the lead author. There will be a conscious effort to strengthen this work area in 2024 once the Platform's staffing, work plans, and clear deliverables are in place.



### Undertake rigorous systematic reviews and syntheses of evidence on important CGIAR-relevant climate topics and publish these in top journals.

The platform produced <u>several publications and journal articles</u> in 2023, both for general awareness and for synthesized evidence targeting specific decision-making spaces.

The Platform director was involved as an editorial board member in the production of the <u>Ten New Insights in Climate Science 2023/2024</u> (*Global Sustainability*, December 2023), which offered new thinking on recent advances in climate change research with high policy relevance and across natural and social sciences. The Platform will build on this publication record in 2024 to ensure that more scientific journal articles are published and informed by systematic reviews and syntheses of evidence generated by CGIAR and its partners.

The Platform also led the production of the <u>Agriculture Chapter</u> of the 2023 Breakthrough Agenda report. The findings and analysis from the report and seven technology areas informed CGIAR messaging and collation of evidence in key processes and spaces, including at COP28, UNFSS, CFS, AGRF, and the Africa Climate Summit.

#### Generate "evidence explainers" and other communications materials to support policy-relevant climate change discussions and decisions and to advise CGIAR on its Portfolio.

The Platform made some initial reflections and did some preparatory work for development of these new materials and will produce them in 2024.

### Communicate climate science work in policy-relevant ways in public fora and climate negotiations.

Throughout 2023, the Platform worked with CGIAR Centers and CGIAR's P&A and C&O global groups teams to identify conferences, webinars, workshops, and other fora most suitable for disseminating CGIAR and partner climate change evidence and messages. Staff of the Platform took part as organizers, keynote presenters, speakers, panelists, and interviewees at many major climate-related fora this year, including media interviews, side events during COP28, the UNFCCC Bonn intersessional sessions, four of the five UNFCCC Regional Climate Weeks, UNFSS, CFS, and the AFSF/Africa Food Systems Forum, among others.

### Use syntheses to identify gaps in climate/agrifood research and to make recommendations for CGIAR's research Portfolio.

Of the Platform's initial discussions around research gaps, which began in 2023, one of the gaps identified is the issue of "loss and damage", where CGIAR has not yet conducted research work. With additional conversations planned for 2024, including via the climate CoP to be launched then, other research gaps will be identified, and a joint plan developed with CGIAR Centers and its new Portfolio as well as with external partners on work designed to help close those gaps.

### Module 4: Influencing global climate processes



# CGIAR science and global science assessments to which CGIAR scientists contribute are used for influencing global climate negotiations.

As mentioned in Section 2 above, the Platform's director was the coordinating lead author of the IPCC chapter on water in the IPCC Working Group II and was a core member of the writing team for the IPCC's *Synthesis Report*.



### On track

# Support evidence driven CGIAR Portfolio management, specifically to inform CGIAR research priorities and investments in the climate and agrifood space.

Also mentioned above, in a series of internal consultations, the Climate Platform contributed to development of CGIAR's new "P25 Portfolio", delineating the many roles climate action can and should play in agrifood systems.

The Platform packaged and shared evidence from COP28 side event discussions with the wider CGIAR team to raise awareness of the priority issues identified and to encourage thinking around how CGIAR evidence could inform future negotiations as well as countries and key partners.

IODULE	PROGRESS RATING & RATIONALE
1	<b>Progress rating</b> Following a 2023 Platform survey and analysis of climate experts and expertise within CGIAR, the Platform will launch a community of practice in 2024 to inform demand-led evidence syntheses and meta-analysis.
2	Progress rating Initial analysis of the main categories of CGIAR-climate-relevant methods and metrics was done in 2023. This will be built on with the help of a consultant expert in 2024 to ensure that CGIAR climate-relevant innovations are better managed and easier to find and build on in future.
3	<ul> <li>Progress rating</li> <li>The Platform led the writing of the <u>agriculture chapter</u> of the Breakthrough Agenda Report 2023: Accelerating Sector Transitions through Stronger International Collaboration and synthesized knowledge from <u>seven technology areas</u>.</li> <li>The FCDO used the recommendations from the CGIAR to frame the 2024 <u>priority international actions</u> of 17 member countries of the Agriculture Breakthrough.</li> <li>Some initial reflection and planning has been done, including identifying "loss and damage" as a key CGIAR research gap in its engagement with the UNFCCC. A more systematic analysis will be undertaken in 2024 to identify and prioritize key gaps that CGIAR and partners can collectively address.</li> </ul>
4	Progress rating Good progress was made in influencing critically important global and regional climate processes and fora. This work included good collaboration with CGIAR's P&A and C&O global groups to ensure more coherent messaging from and across CGIAR.

### Section 4: Key results

This section provides an overview of results reported by the CGIAR Climate Impact Platform. These results align with the CGIAR Results Framework and the Climate Impact Platform's theory of change. Source: Data extracted from the CGIAR Results Dashboard on 13 April 2024.

### **OVERVIEW OF REPORTED RESULTS**



### CONTRIBUTIONS TO THE UN SUSTAINABLE DEVELOPMENT GOALS



### NUMBER OF KNOWLEDGE PRODUCTS BY TYPE





#### Definitions Off track On track Delayed Annual progress largely aligns with Annual progress slightly falls behind Annual progress clearly falls behind Plan of Results and Budget. Plan of Results and Budget in key Plan of Results and Budget in most/all 2023 areas. areas. Can include small deviations/issues/ delays/risks that do not jeopardize the Deviations/issues/delays/risks could Deviations/issues/delays/risks do success of the module. jeopardize the success of the module if jeopardize the success of the module. not managed appropriately.

### Section 5: Adaptive management

RECOMMENDATION	SUPPORTING RATIONALE
Put in place a faster, more efficient recruitment process.	The Platform plays important external-facing functions by bringing together the whole of CGIAR on these topics. Its functioning should be strengthened by tackling administrative bottlenecks in the system and future programming.
Provide the Platform with longer planning and operational timeframes.	One-year planning and research for development of project timeframes negatively impacted the functioning of the Platform. The CGIAR Initiatives also operate on an annual planning basis, yet their budgets are based on an approved proposal covering three years.

CGIAR EMD Ismahane Elouafi, participating in a panel with Jim Skea, Chair of the Intergovernmental Panel on Climate Change (IPCC) and David Obura Chair of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) at the Climate Impact Platform COP 28 side event "The state of agri-food systems in a climate crisis.

Climate Impact Platforn

### CGIAR Advances the Glasgow Breakthrough Agenda

Authoring the 2023 Agriculture Breakthrough Agenda report leading which informed 17 countries' international priority actions, and informing the COP28 Global Goal on Adaptation decision are among the 60 results reported by the Platform.



**Primary Impact Area** 

Other relevant Impact Areas targeted

Contributing Impact Platform

Contributing Centers All CGIAR Centers Geographic scope



Global

CGIAR is playing a crucial role in advancing the <u>Glasgow</u> <u>Breakthrough Agenda</u> — an unprecedented global effort to align concrete actions to keep global warming to 1.5°C or less. Launched by a coalition of 45 world leaders at the 2021 UN Climate Conference (COP26) in Glasgow, it outlines a framework for countries, businesses, and civil society to further reduce their annual greenhouse gas emissions in key emitting sectors through use of clean technologies.

Recognizing CGIAR's half century of experience in agricultural research for development, the Foreign, Commonwealth & Development Office of the United Kingdom (FCDO) commissioned CGIAR to draft the agriculture chapter of the *Breakthrough Agenda Report 2023*. In collaboration with scientists from several CGIAR Centers and Initiatives, the CGIAR Climate Impact Platform led in the writing of the *Agriculture Breakthrough Report 2023*. The chapter pulls on recommendations from the CGIAR Achieving Agricultural Breakthrough: A Deep Dive into Seven Technological Areas Report and provides an independent, authoritative assessment of the agriculture sector, offering insights into global collaborative actions needed by 2030. It also highlights the most urgent and high-impact opportunities to accelerate progress toward the Breakthrough goals.

### Key principles for agricultural breakthroughs

The CGIAR <u>Achieving Agricultural Breakthrough: A Deep Dive into</u> <u>Seven Technological Areas</u> report intensively explores solutions to pressing global challenges in agriculture — challenges that must be overcome if climate-resilient, sustainable farming is to be made possible for millions of farmers in low- and middle-income countries by 2030. These small-scale farmers are disproportionately affected by increased floods, droughts, and other impacts of climate change.

#### **Global actions and priorities**

The agriculture chapter of the Breakthrough Agenda Report 2023 recommends five international actions, ranging from increased climate finance to strategic dialogues on international trade

1. Increase climate finance to support deployment of agricultural technologies and approaches for which science has generated evidence on effectiveness, including agroecology, reducing food loss and water, reducing livestock methane emissions, reducing emissions from fertilizers, and crop and livestock breeding.

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The world simply cannot meet its climate or development goals without transforming agrifood systems. The agrifood sector can and must reduce its emissions while equipping farmers to cope with climate extremes.

Ismahane Elouafi, CGIAR Executive Managing Director

- Commit to a long-term process to test, develop evidence, and share learning on policy and implementation. This should prioritize redirecting subsidies to support agriculture to move toward sustainability and climate resilience and facilitating faster uptake of proven technologies in the sector.
- Develop common metrics and indicators to track the adoption of key sustainable agriculture solutions and to monitor the state of natural resources on which agriculture depends.
- 4. Deliver higher levels of investment in agricultural research, development, and demonstrations over the course of this decade.
- Conduct strategic dialogues on how to ensure international trade facilitates and does not obstruct the transition to sustainable agriculture. Complement this by sharing best practices in mobilizing private investment and engaging food consumers.

These actions will support implementation of priority international actions developed collaboratively by countries participating in the Agriculture Breakthrough.

Each participating country will formulate its own national pathway to transition its agriculture sector to climate resilience and sustainability. The CGIAR Climate Platform strongly encourages coordinating bodies and partner initiatives to include privatesector and civil-society representatives where possible. The report also highlights the role of international collaboration in advancing breakthrough technologies across seven priority areas. Importantly, it includes practical solutions to address challenges small-scale farmers are facing worldwide.

### Global impact of the Breakthrough Agenda

In the global agriculture sector, the Breakthrough Agenda has emerged as a vital initiative following discussions at COP26 (Glasgow, 2021) and COP27 (Egypt, 2022). Backed by 45 world leaders, it aims to accelerate innovation and the adoption of clean technologies worldwide. With 48 signatories, including Australia, Egypt, and the UK, and co-leadership from the UK and Egypt, the momentum is strong. The Agriculture Breakthrough Agenda has been signed by 17 countries. Recommendations based on the agenda have been translated into actionable priorities by the FCDO. In 2024, the 17 signatory nations to the Agriculture Breakthrough Agenda will implement these actions, marking a significant advancement in addressing agricultural challenges.



### Front cover photo

Sukhdev Vishwakarma and his daughter Meen, both farm workers, use water from a solar water pump at a farm in Jagadhri, Haryana State, India. Credit: Prashanth Vishwanathan/CCAFS

### Back cover photo

Garden of Sanfo Karim, Burkina Faso. Credit: O. Girard/CIFOR

