CLIMATESHOT
A GLOBAL ACTION AGENDA FOR INNOVATION IN AGRICULTURE

www.climateshot.earth
THE GLOBAL ACTION AGENDA FOR INNOVATION IN AGRICULTURE WILL TRANSFORM FOOD SYSTEMS UNDER A CHANGING CLIMATE.

It will drive action to close the ‘innovation gap’ that limits our efforts to adapt to and mitigate climate change, while accelerating efforts towards greater food security around the world.

Between USD 50-70 billion is spent on agricultural innovation every year in low- and middle-income countries. But less than 7% of that expenditure seeks to improve the environment or limit climate change and its impacts.¹

Our current pipeline of investments in agricultural innovation is far from enough. It can only deliver 40% of the climate change mitigation needed to reach the ambitions of the Paris Climate Agreement ², and is insufficient to scale up adaptation solutions to limit the growing impacts of climate change on food security.
WE MUST DELIVER AN INNOVATION BREAKTHROUGH IN AGRICULTURE

A ClimateShot would make food systems more sustainable and climate-smart.³

Such innovation will make sustainable agriculture more affordable, attractive and more widely adopted than unsustainable practices around the world by 2030, to the benefit of people, nature and the planet.

The Transforming Agricultural Innovation for People, Nature and Climate campaign aka “ClimateShot” brings together changemakers from around the world in an informal alliance that draws from across the climate, agriculture and food sectors.

We believe that only collective action of these allies – around a focused set of actions – will transform agricultural innovation.

For more information on how to become an ally, please visit: www.climateshot.earth
KEY OBJECTIVES

**Increase investment** in agricultural research and innovation to create more climate-resilient, low-emission technologies and practices in agriculture.

**Focus** at least a third of agricultural research and innovation investments on delivering demand-driven solutions across food systems that protect nature and limit climate change.

**Showcase** successful business models and promote public-private partnerships that deploy these innovations on the scale needed to meet the climate and food security challenge.

**Forge consensus** on the evidence of what works where, and facilitate inclusive dialogue among food and climate champions around the world on appropriate public, private and civil society solutions.
CLIMATESHOT ALLIES

The transformation of agricultural innovation requires collective action by those who have a stake in the agricultural sector. We identify groups of these stakeholders below, and highlight the necessary step each group must take towards transformation:

**FARMERS**
Engage with research projects and the innovation process, holding institutions to account by articulating and communicating their needs, concerns and priorities.

**FUNDERS OF AGRICULTURAL RESEARCH AND INNOVATION**
Increase and reorient funding to accelerate the development and scaling of sustainable technologies and practices.

**GOVERNMENTS**
Provide policy support to agricultural research and innovation while repurposing subsidies to enable both.

**RESEARCH ORGANISATIONS**
Commit to demand-driven solutions that deliver innovations at scale.

**BUSINESSES**
Increase and reorient funding for agricultural research and innovation, and scale up new climate-resilient technologies and practices.

**INVESTORS**
Commit to demand-driven solutions that deliver innovations at scale.

**IMPLEMENTING PARTNERS**
Commit to the rapid deployment of innovation as part of a wholesale ‘end-to-end’ approach across food systems, from ‘farm to fork’.
HOW WE DELIVER ON OUR AMBITIONS

At the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), the global campaign on *Transforming Agricultural Innovation for People, Nature and Climate* culminates with:

- **This Global Action Agenda for Innovation in Agriculture.**
- **A set of priority initiatives to implement the ambitions of the Global Action Agenda.**
- **Contributions and pledges from Party and non-Party stakeholders (Allies) to operationalise the vision and objectives of the Global Action Agenda.**
A preliminary list of priority initiatives will help implement the ambitions of the Global Action Agenda— including the 100 Million Farmers multi-stakeholder platform convened by the World Economic Forum (WEF), the Global Research Alliance on Agricultural Greenhouse Gases (GRA), CGIAR, and a new ClimateShot Coalition on Impact Investment. To advance the vision and ensure the successful implementation of the Global Action Agenda, more initiatives will be welcomed in the upcoming years.

The 100 Million Farmers multi-stakeholder platform puts forward an actionable and transformative contribution to the Global Action Agenda by catalysing action to transition towards net-zero, nature-positive food systems by 2030. It drives ambition on a set of objectives, priorities, and tools, facilitating collective action and feeding broader recommendations into formal markets, government policymaking and global frameworks.

The Global Research Alliance on Agricultural Greenhouse Gases (GRA) focuses on building global research and science capability, including supporting early career scientists working on agricultural greenhouse gas mitigation. Through its international network of 65 member countries and 25 partner organisations, GRA makes a key contribution to the Global Action Agenda by facilitating collaborative and evidence-based dialogue and knowledge sharing.

The new CGIAR organisational structure, far-reaching research and innovation strategy, and ambitious portfolio of game-changing Initiatives, puts the climate crisis at the heart of agricultural research and innovation. CGIAR will contribute to the Global Action Agenda by addressing climate change and protecting nature, while advancing gender equality, poverty reduction, and food and nutrition security for the world’s most vulnerable small-scale producers and consumers.

ClimateShot for impact investors brings together leading organisations that invest in private sector-led solutions in agriculture and food systems, to accelerate financing for the Sustainable Development Goals. It contributes to the Global Action Agenda by establishing a coalition of organisations that support innovation – through their financing mechanisms, or their focus on innovative entrepreneurs – around a shared set of priority actions that will ultimately drive increased investment to scale solutions that work for people, nature and climate.
Together, these efforts will strengthen and enhance our research, development, and innovation efforts to sustainably increase agricultural productivity, improve livelihoods, conserve nature and biodiversity, and adapt and build resilience to climate change within food, forests and agricultural commodity systems.

To capitalise on the momentum built by the campaign and continue to usher in a step change in agricultural research and innovation, the following post COP26 actions are proposed, in alignment with the Forest, Agriculture & Commodity Trade (FACT) Dialogue roadmap’s suggested actions on Research, Development and Innovation.

**COORDINATION**

Coordinate the implementation of priority initiatives and contributions/pledges announced at COP26 to support the Global Action Agenda.

Use metrics and principles, including those developed by the Commission on Sustainable Agricultural Intensification, to monitor the increase and realignment of investments into agricultural innovation aligned to the Global Action Agenda.

Reinforce joint efforts among relevant global, regional and national agricultural research initiatives and institutions, including CGIAR and the Global Research Alliance on Agricultural Greenhouse Gasses (GRA).

**COLLABORATION**

Identify, support, and share innovative technologies, business models and/or approaches to accelerate the deployment and scalability of technologies across regions to avoid expansion of unsustainable practices and maintain sustainability of terrestrial ecosystems.

Support matchmaking efforts to facilitate end-to-end innovation in agricultural innovation, e.g. linking innovative technologies to impact investment efforts.

Foster collaborations in the priority research areas identified as part of the Global Action Agenda.

Strengthen national research partnerships for agricultural innovation involving public and private sector actors to test, promote and upscale innovative technologies, business models or approaches and their dissemination, particularly for smallholders.
**ENGAGEMENT**

Engage in UNFCCC processes and deliver a side event at COP27 that articulates progress, and secure additional support needed to take efforts further.

Work with the private sector to transform business models, mobilise investments, enhance impact of efforts in agricultural innovation.

Engage with an expanded group of countries deploying at scale agricultural innovations identified through FACT Dialogue activities and lesson sharing platforms.

Actively engage in global, regional, and national mechanisms to address common research and innovation challenges (via partnerships and collaboration mechanisms involving public and private sector actors, and by deploying new tools and metrics).

**INVESTMENT**

Address the investment gap in research and innovation through new national and international commitments.

Support private sector investments for impact aligned to the Global Action Agenda.

These efforts at coordination, collaboration, engagement and investment will be captured through www.climateshot.earth, which can transform into a hub for all of the above actions and provide transparency.
BACKGROUND

The year-long campaign leading up to the UN COP26 climate summit has involved:

- A series of evidence reviews and engagement with a wide range of stakeholders through virtual events. 4, 5, 6
- Engagement with the UN Food Systems Summit through its Dialogues, Action Tracks and Pre-Summit and Summit Side-Events.
- Engagement with FACT Dialogue.
- Alignment with the Sustainable Agriculture Policy dialogues.
THE CASE FOR TRANSFORMING FOOD SYSTEMS UNDER CLIMATE CHANGE

Our food systems are faced with existential threats from the accelerating impacts of climate change. The Intergovernmental Panel on Climate Change (IPCC) found that climate change is already affecting crops and livestock as well as fruit and vegetable production. ⁷

Evidence shows that global agricultural productivity growth has decreased by approximately 21% since 1961 due to climate change. ⁸

This puts farmers - particularly smallholders - in developing countries at risk. Meanwhile, global food production must increase by 56% compared to 2010 levels, to feed an expected global population of 10 billion people by 2050. ⁹

Many of our current production practices adversely affect nature and climate. Food systems are responsible for a third of global greenhouse gas emissions, while agricultural production uses 70% of our freshwater resources and is the biggest factor driving the loss of our planet’s biodiversity. ³, ¹⁰

To meet this twin climate–food challenge, international institutions, governments, business, financial institutions, research organisations, civil society and local communities must act together to transform food systems.

If we catalyse a third of all current investments into agricultural research and innovation to deliver for people, nature and climate then we can contribute to the vision of transformation in food systems.¹¹

The summits of 2021 – not least COP26 – offer us a once-in-a-lifetime opportunity to galvanise action on food systems and the climate to catalyse the transformation we seek.
ENDNOTES


## Annex

### Research and Innovation Priorities to Support the Global Action Agenda

Table 1: Transformative actions and associated research and innovation priorities

<table>
<thead>
<tr>
<th>Transformative actions</th>
<th>Priority research questions</th>
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<tbody>
<tr>
<td>Zero agricultural land expansion in high carbon landscapes</td>
<td>What are the methods, tools and policies to incentivise better transparency and accountability in commodity supply chains? How can these be scaled?</td>
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<td>Implement policy and institutional change that enable transformation</td>
<td>How can entrenched views and political realities be addressed to catalyse reform in the agriculture and food sectors in countries?</td>
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<td>Transform innovation systems to deliver impacts at scale</td>
<td>What are the best practices to improve knowledge generation processes to support the transformation agenda?</td>
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<tr>
<td>Enable markets and public sector actions to incentivise climate-resilient and low emissions practices</td>
<td>What are the factors that can support rapid scaling out of climate-resilient practices and technologies, taking into consideration context-specific needs?</td>
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<tr>
<td>Unlock billions in sustainable finance</td>
<td>What are the best practices to develop bankable projects for food systems transformation?</td>
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<td>Help farmers make better choices</td>
<td>How can farmers leapfrog traditional agricultural development pathways through digitalisation?</td>
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<tr>
<td>Secure resilient livelihoods and value chains through early warning systems and adaptive safety nets</td>
<td>How can the ‘last mile’ challenge in the delivery of climate services be overcome?</td>
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<td>Drive social change for more sustainable decisions</td>
<td>What are the behavioural factors for replicating and scaling social change?</td>
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<tr>
<td>Shift to healthy and sustainable climate-friendly diets</td>
<td>What mechanisms are most effective (and in which contexts) to transition towards healthy and sustainable diets, including taxes, subsidies, labelling, awareness campaigns etc.?</td>
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<tr>
<td>Reduce food loss and waste</td>
<td>What are the bottlenecks that deter reduction of food loss and waste, how can these bottlenecks be overcome?</td>
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<tr>
<td>Support prosperity through mobility and rural reinvigoration</td>
<td>What are the opportunities for livelihoods development in rural areas when farming is no longer viable under climate change?</td>
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The views expressed in this document cannot be taken to reflect the official opinions of these organisations.

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