Alliance
Bioversity & CIAT

ANNUAL REPORT

Science Out of the Lab

Working Together for Food and Land Systems Solutions

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) delivers research-based solutions that harness agricultural biodiversity and sustainably transform food and land systems to improve people's lives. Alliance solutions address the global crises of malnutrition, climate change, biodiversity loss, and environmental degradation.

Through novel partnerships, the Alliance generates evidence and co-creates innovations to transform food and land systems so that they sustain the planet, drive prosperity, and nourish people in a climate crisis.

The Alliance is part of CGIAR, a global research partnership for a food-secure future.

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Science + Collaboration = Scalable Impact

Will food and land systems be a solution to the world's pressing challenges... or remain part of the problem? The science to tip that balance exists. But it requires partnerships to turn into action.

This Annual Report demonstrates how rigorous research is taking the next step: from resilient crops and digital tools developed with farmers, to shock-proofed supply chains and climate-smart policies.Through collaboration across geographies and sectors, food and land systems change is possible.

We invite you to explore the Alliance's approach.

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Stories of Collaboration

Countries join forces against cassava witches' broom disease

A devastating crop disease has reached Latin America. We collaborated with national researchers from the Philippines to Brazil in order to trace its roots and slow its spread.

In the cassava fields of French Guiana, farmers reach under suspiciously immature leaves and dig up withered, unsellable roots. The culprit is a plant fungus that is devastating yields and crippling the staple crop critical for at least 500 million people. This is **cassava witches' broom disease (CWBD):** a disease that has been poorly understood across much of the crop's global growing range. But this is changing.

Uncovering the root cause: a fastidious fungus

Over the last few years, Alliance researchers working alongside national partners have confirmed the causal agent CWBD in Laos: the fungus *Ceratobasidium theobromae*, not a bacteria as was commonly believed before. The discovery, made by the Alliance's Crop Protection team working at our pathology lab outside of Vientiane hosted by the Lao National Agriculture and Forestry Research Institute (NAFRI), drew on advanced DNA metagenomic analyses and diagnostic tools also used to diagnose COVID-19, and implemented through longstanding regional research networks.

In spring 2024, in communication with France's ANSES and Fredon in French Guyana and Embrapa, Brazil's federal agricultural research corporation, Alliance researchers used similar tools to confirm the presence of CWBD in South America. Soon after, we established a close collaboration project with Embrapa and launched a rapid-response plan to mitigate the spread of disease.

"We are facing an emergency. Cassava is an everyday food in Brazil. If producers, particularly many women and Indigenous communities, don't have cassava roots, they won't have anything to eat or anything to make money from."

— Paulo Melo, researcher at Embrapa's International Relations Office.

Global knowledge exchange to protect harvests

How to prevent the further spread of CWBD, especially in Latin America where humid conditions feed the fungus?

As infected plants are collected and burned, researchers have been adapting the molecular diagnostic tools used in Asia, so that agricultural extension agents and farmers can also recognize the initial signs in Latin American fields (all protocols developed and validated by the team are freely available via our monitoring platform PestDisPlace: https://bit.ly/4vOGV6R).

Partners are eager to show that the disease is not a localized concern, but a threat requiring coordinated international response, enabled by a **south–south knowledge exchange**. The diagnostic and breeding capacity developed through collaboration between researchers in Colombia and Laos is being extended further through networks such as the International Society for Tropical Root Crops (ISTRC), wherever cassava is a dietary staple for hundreds of millions of smallholder farming households.

The work has been widely covered, in Portuguese by the Sao Paolo Research Foundation (FAPESP) and also internationally, for example, by Mongabay. This story traces the disease's path from Southeast Asia to its first documented description in the Americas: encompassing both the global reach of the threat and the global reach of our response. As farmers report new incidences of cassava witches' broom disease, the fight against the fungus continues.

"It's hard to understate the importance of the cassava germplasm collections. These form the genetic backbone for breeding new varieties and finding and understanding natural resistance to disease. It's critical that material facing threats from witches' broom is collected, screened for disease, and quickly transported to in vitro storage facilities for research."

— Jonathan Newby, Cassava Program leader at the Alliance.

Sharing clean seeds

A critical resource is the collection of 6,000 diverse cassava varieties held at the Alliance's Future Seeds genebank. Amongst the samples, collected with other research partners like Empraba, may be the answer to the disease: out of about 300 cassava varieties tested so far, the Alliance's cassava breeders have found multiple varieties that display resistance to witches' broom in Southeast Asia. It is hoped that this will extend to resistance in other regions as well.

This model, in which national research institutes, plant breeders, government agencies and the private sector work in concert, guided by Alliance science, reflects a core principle of the Alliance's approach: that durable solutions to crop disease require not just technical knowledge, but shared capacity and institutional relationships built over time. Breeders now have access to characterized germplasm with known resistance profiles. Governments have early warning frameworks they did not previously possess. And farmers, whose livelihoods depend on every viable harvest, have partners working urgently on their behalf.

Read more about cassava witches' broom disease

Explore more of our 2025 impact in country-level science uptake

42,730
Livestock relocated thanks to drought alerts, reducing food insecurity and resource conflict.

40,440
African farmers gained access to improved bean seeds for improved livelihoods.

25
Banana varieties have gone from the Alliance's Musa genebank to farmers' fields.

International Agrobiodiversity Congress unites experts from around the world

Kunming is a hotspot for agrobiodiversity, both on plates and in policy commitments. We convened specialists there to gather scientific knowledge and produce a Manifesto that lays the foundation for informed policies, from China to Dakar.

The numbers tell a narrowing story. Three commodity staples—rice, maize, and wheat—provide two-thirds of the calories consumed globally, while just 12 plant species and five animal species account for approximately 75% of the world's food supply. This narrowing of the global diet has massive implications for environmental and human health.

But in places like **Kunming**, in China's Yunnan Province, agrobiodiversity continues to flourish. Nicknamed "The city of eternal spring", Kunming is a hotspot for cultural and ecological diversity. Amongst its 15,000 plant varieties are delicacies like wild mushrooms and fiddlehead ferns, contributing to a vibrant culinary scene that unites sustainable gastronomy and cultural heritage. Kunming is also elevating agrobiodiversity from the dinner table to the global policy space, acting as the site of the **UN Convention on Biodiversity's COP15**, in which participating countries adopted the landmark Kunming-Montreal Global Biodiversity Framework to halt and reverse biodiversity loss, with special provisions for equitable benefit sharing of plant genetic resources.

It is therefore no coincidence that Kunming became the gathering place for more than 800 scientists, policymakers, farmers, and practitioners from 60 countries, for the **third International Agrobiodiversity Congress**, a conference co-organized by the Alliance of Bioversity International and CIAT and the Chinese Academy of Agricultural Sciences (CAAS). With the theme "Agrobiodiversity for People and Planet", this May gathering represented a decade of momentum: from the Congress's founding in India in 2016, through its second iteration in Italy in 2021, to this landmark edition in China. The Congress brought together experts to discuss the most recent trends in agrobiodiversity, and opportunities as food systems face increasing challenges.

“We use agrobiodiversity to breed new varieties of plant and animal to improve productivity, to develop characteristic agricultural products for meeting the different needs, and establish the value chain from the field to the table for increasing farmers’ income. Under the challenge of current climate change and environmental deterioration, agrobiodiversity can play a greater role by not only providing genes resistant to different biotic and abiotic stresses, but also contributing to nature-based solutions for resilient agricultural production system.”

— Liu Xu, academician, co-chair of International Scientific Committee of the 3rd International Agrobiodiversity Congress, CAAS, China.

“If we use agrobiodiversity to close the gaps in terms of food insecurity, malnutrition, and economic development, then we can also contribute to achieving development goals. There are plenty of opportunities to build more prosperity in the countryside if we use better and more agrobiodiversity.”

— Marcela Quintero, associate director general at the Alliance of Bioversity International and CIAT.

Across six thematic areas—economic growth, climate resilience, environmental health, healthy diets, gender and social inclusion, and conservation—there was a consistent message: protecting and expanding agrobiodiversity demands inclusive, people-centered policies. Indigenous and local communities, long the primary stewards of crop and genetic diversity, must be placed at the center of research, policy, and market-access frameworks. The Congress also underscored the urgency of the moment: both the **Kunming-Montreal Global Biodiversity Framework** and the **2030 Sustainable Development Goals** have just five years remaining on the clock.

As co-convener and co-author of the Congress’s scientific program, the Alliance shaped the agenda and ensured that its outputs would carry beyond Kunming.

The Kunming Manifesto

On 3 September 2025, at the **Africa Food Systems Forum Summit** in Dakar, Senegal, the **Kunming Manifesto** was formally launched before a new audience: African policymakers, agrifood system actors, and development partners for whom the stakes of food system transformation are most immediate. The Manifesto—the principal output of the Congress—synthesizes the global agrobiodiversity debate into actionable recommendations and regional case studies, demonstrating that a coordinated, multistakeholder approach can deliver measurable nutritional, environmental, and economic benefits.

The Manifesto now charts the course for the next five years, calling for agrobiodiversity to be integrated into the **Rio Conventions on climate, biodiversity, and desertification**, and for a reorientation of agricultural subsidies toward nature-positive food systems. The Alliance's convening of the Congress, its co-authorship of the Manifesto, and its role in bringing that document to Africa underscore the **importance of rigorous, peer-validated scientific knowledge** as the essential ingredient for enduring food and land system change.

"If we're going to transform the global food system, we need to encourage biodiversity on our plate and bring underutilized crops back to the farmers' field and on our tables—not only at international forums."

— Carlo Fadda, research director of Biodiversity for Food and Agriculture at the Alliance of Bioversity International and CIAT; co-author and co-chair of the Congress's Scientific Committee.

Community seed banks exemplify local to global solutions

Among the evidence the Manifesto draws on is Alliance-supported work in Kenya and Uganda, where **community seed banks**, established since 2010, provided more than 10,000 people with sustained seed security, access to more diverse and nutritious foods, and nearly US$100,000 in sales of seeds and products derived from agrobiodiversity and native tree species. Meanwhile in Ethiopia, we observed the stabilizing potential of seedbanks in times of crisis and instability.

Likewise in India, community seed banks integrate nutrition and livelihoods while conserving and using traditional crop varieties. At least 300 promising native varieties met local farmers' diverse needs for climate resilience, enhanced nutrition, and improved livelihoods. This agrobiodiversity can also be mainstreamed through school meals to deliver benefits for both local farmers and schoolchildren.

Finally, in Colombia, our Biodiversity for Resilient Ecosystems in Agricultural Landscapes (BREAL) project—which also has sites in Peru and Kenya—has assessed the potential of crop varieties contained in agrobiodiversity zones, characterizing examples like Andean lupin, which can be processed into vegetable milk. Our seedbank collaborations in Colombia have been extensively covered by media outlets including EFE and El Tiempo.

This kind of scalable science—beginning in communities and returning to them—has valuable lessons at the global policy table.

Explore more of our 2025 impact in agrobiodiversity conservation and knowledge-sharing

12
Countries' genebank capacity boosted by a community of conservation specialists.

10,000
Farmers reached with price information from our SUSTLIVES project, helping bring neglected and underutilized crops to market.

Climate Resilience Platform guides food industry sourcing

The world's food supply chains were built for a stable climate that no longer exists. The Alliance is working with the private sector to change how the food industry plans for what's coming: turning climate science into sustainable investment decisions.

When a procurement manager at a global food company asks where climate change will hit their supply chain hardest, they need answers grounded in rigorous science, expressed in the language of business risk. That is what our Climate Resilience Platform (CRP) is designed to deliver.

First developed in 2023 in partnership with PepsiCo, the CRP is a free, open-source tool that combines crop-specific yield modelling with climate hazard data—drought, flood, heat, frost—to generate actionable projections for agricultural supply chains. It maps likely yield impacts under both "do nothing" and "resilient" scenarios across 9 major commodity crops and 50 countries, giving sustainability and procurement teams the intelligence they need to invest ahead of climate risk, rather than respond to it. Fast Company recognized the platform as one of its "Next Big Things in Tech" in food and agriculture.

Early results: reduced risk

The results already achieved illustrate what this kind of evidence can unlock. Four years after a pilot implementation in Thailand, CRP analysis showed that potato farmers in the region would face severe pressure under unchanged practices—and it quantified that risk in terms that the food industry could act on. These findings helped secure a US$3 million, three-year partnership jointly funded by PepsiCo Thailand and GIZ to prioritize investments in soil health and drip irrigation. Three thousand farmers adopted climate-resilient practices as a result, cutting greenhouse gas emissions by 20% per tonne and increasing net farmer income by more than 15%.

3,000 Farmers adopted climate-resilient practices in Thailand

-20% GHG emissions per tonne of potato

+15% Net farmer income increase

$3M Investment secured via CRP evidence

"Climate change is one of the greatest challenges facing agriculture, and the need to innovate for resilience keeps on increasing. Our collaboration will help extend the reach of this open-access tool to key crops such as rice and cotton, helping create long-term value for supply chains and secure livelihoods for farmers in some of the most climate-vulnerable regions."

— Laurence Jassogne, head of Nature and Climate Solutions, Olam Agri.

Expanding to more crops and collaborators

In September 2025, the Alliance and PepsiCo launched CRP 2.0—a major update expanding the platform's capabilities and reach, made possible through PepsiCo's continued leadership and a US$1 million co-funding contribution from the Foundation for Food and Agriculture Research (FFAR). This new version adds quantification of climate risk and opportunity in explicit investment terms, enhanced tools for landscape-level collaboration between organizations, and two new crops—rice and cotton—brought in through the platform's newest partners, Olam Agri and Bonsucro.

What the growing roster of partners—PepsiCo, Olam Agri, Bonsucro, FFAR, and others—signals is a shift in how the food industry relates to agricultural science. The CRP is not restricted to those who can afford it: it is open-access, open-source, and designed to enable collective action across supply chains. The Alliance's role is to ensure that the science underpinning it remains rigorous, current, and connected to the realities of farmers in climate-vulnerable regions. Looking ahead, the platform aims to support the resilience of at least 9 million hectares of agricultural land and integrate 500,000 livelihoods into sustainable sourcing plans—targets that reflect both the scale of the challenge and the ambition of this partnership model.

Access the Climate Resilience Platform here

More sustainable supply chains: cacao and coffee

In 2025, we also reached the end of the EU Desira project, which was pivotal for the cacao sector in Peru, Ecuador and Colombia, as its aim was to produce the science and practices required to secure access to markets for small cacao farmers. By creating scientific recommendations and credible information about cadmium content and absorption in cacao, the project enabled farmers and countries to adapt to and comply with food safety regulations for this crop in the EU market. A critical aspect of this work was our partnership with governments and national organizations, along with gene editing work (CRISPR) as a promising breakthrough for safer cacao.

Additionally, the Alliance has developed systems to help farmers comply with EUDR regulations, creating traceability and monitoring, reporting and verification (MRV) systems to demonstrate the origin of deforestation-free coffee from Honduras, culminating in the country's first certified shipment last fall. This work continues in 2026, as we help reduce risk of exclusion of smallholder coffee and cacao farmers from deforestation-free supply chains through evaluation and ranking of the most accurate and unbiased deforestation compliance maps using Sample Earth. Likewise with cacao, we are collaborating with the Italian government on sustainable cacao in West Africa.

Explore more of our 2025 impact on sustainable supply chains

95%
Of global cocoa and coffee production covered by climate projection data (ACLIMATAR).

$50M
Investments informed for Amazon biodiversity fund.

23
Colombian dairy companies adopted sustainability monitoring platform.

20.7
Metric tons of coffee verified to meet EU deforestation-free standards.

Artificial intelligence meets agriculture

Artificial intelligence is reshaping agriculture, but its full potential will only be realized if it powers tools designed for and with the people who grow our planet's food. This **human-centered design** principle guides the Alliance's approach to digital innovation: AI designed to fit the hands of breeders, extension workers, and farmers in the field—particularly in Africa, where the gap between research capability and practical application has historically been widest, and where the stakes of getting it right are highest.

In 2025, a suite of interconnected tools developed by Alliance scientists, supported by global partners including the Gates Foundation and Google, moved from the research phase into deployable products.

"Beyond the chatbots and productivity tools that have dominated public attention, AI is extending the reach of cutting-edge science and helping scientists globally tackle some of the greatest challenges facing their communities... In food security, we're developing plant phenotyping foundation models to help accelerate the development of new climate-resilient seeds."

— James Manyika, SVP for Research, Labs, Technology & Society at Google-Alphabet, commenting in *Fortune* (https://bit.ly/4amy83j).

Artificial intelligence is transforming industries worldwide, but most of it isn't designed for a smallholder farmer in Uganda with a patchy internet connection. The Alliance is changing that by building farmer-first tools that apply AI to accelerated crop breeding, detecting disease in real time, and listening—literally—to what farmers need.

Seeing the crop: AI-powered phenotyping

Traditional crop evaluation is slow, labor-intensive, and dependent on expert estimators who cannot be everywhere at once. Pheno-i changes that equation. By converting drone and field images into trait-level data at scale—screening thousands of lines for plot quality, disease response, growth, and yield—Pheno-i allows breeders to compress selection cycles that once took seasons into days. Supported by a Google-funded initiative, the Alliance is training breeders to use Pheno-i and develop their own AI models, building analytical capacity across the network. Connected to the CGIAR Fairgrounds platform, this gives breeders access to interoperable, AI-ready datasets: accelerating genetic gains through collaboration as much as through computation.

At the field level, the Artemis project—four years of research and development supported by the Gates Foundation—has produced Ona (Swahili for "to see"): a smartphone-based computer vision tool that allows researchers to image entire breeding plots in under 30 seconds. Used alongside Bruno, its companion field tool, Ona delivers same-day data that outperforms traditional human estimation in precision and accuracy. Ona is now scaling as the primary smartphone phenotyping tool across CGIAR—putting rigorous crop measurement in the pocket of anyone with a phone.

"We need AI that listens, literally and metaphorically. Because the real innovation isn't the algorithm. It's what happens when a farmer's voice shapes the science."

— Jacob van Etten, director of Digital Inclusion at the Alliance, speaking at CGIAR Science Week (https://bit.ly/4oM8qv3).

Listening to the farmer: voice, language, and on-farm intelligence

Phenotyping captures what a plant looks like. But understanding what a farmer needs requires a different kind of listening. The **NDIZI project**—also Gates Foundation-supported—has developed **Sikia** (Swahili for "to listen"): a tool that uses automatic speech recognition and vision-language models to capture conversational and visual data directly from the farm, processing it through large language models to extract insights into farmer preferences and in-season plant performance. Having developed performant models for Swahili, the team is now expanding into other languages (Chichewa, Amharic, Hausa, Wolof, Yoruba) and building towards offline, on-device deployment for areas without internet connectivity—a design choice that keeps the technology grounded in the realities of the farmers it is meant to serve.

Tricot—a citizen science methodology for inclusive on-farm crop testing—has likewise been transforming how breeders gather preference data at scale, by placing the evaluation of new varieties directly in the hands of farming communities. Our 1000FARMS project has worked across Ethiopia, Ghana, Uganda, and beyond to scale the use of tricot and the ClimMob platform among national research systems, universities, and CGIAR breeders. The approach generates context-specific preference data that laboratory trials cannot, and is changing how breeders think about the late stages of variety development.

"We are in the process of developing improved varieties of common beans. Usually when we are in the late stages before we release the varieties officially, we have to test them on-farm with farmers. We opted to use tricot because we wanted to have a better understanding of the degree to which the farmers appreciated these varieties."

— NARO bean breeder, Uganda (collected during an anonymous interview: https://bit.ly/4wbMagx).

An analysis started in July 2025 confirmed tricot's growing momentum: especially in Ghana and Uganda, the Alliance's work, combined with CGIAR and Gates Foundation-funded breeding programs, has demonstrably increased awareness, skills, and adoption for national breeders. For example in Ethiopia, respondents indicated a high 90% trust in tricot over other on-farm methods. Likewise, uptake has catalyzed collaborations with farmer organizations, public extension services, and seed system partners. The analysis also points to where more work is needed: in Ethiopia and Haiti, building institutional relationships that allow tricot to take root remains a priority.

Disease detection at scale: hope through Tumaini

For farmers dealing with crop disease, speed of diagnosis can mean the difference between a manageable outbreak and a lost harvest. The Tumaini app aims to do this for key crops such as banana and, most recently, beans. It has already been widely adopted among PABRA breeders and is now integrated into the Beans for Women project—with real-time disease detection and crop health assessment made possible directly from a smartphone. An open-source dashboard has mapped more than 100,000 GPS-referenced banana disease observations across 17 countries. In eastern Uganda, extension workers and lead farmers have been trained in the technology, embedding digital literacy into the agricultural communities that need it most. Interest is now extending beyond Africa: partners in Southeast Asia have requested localized language support (such as Malay) to adapt Tumaini to banana and other crops (with plans including expansion to coffee and cacao)—a signal of the platform's scalability and of the Alliance's growing role as a provider of agricultural AI infrastructure.

Also in 2025, Alliance scientist Michael Selvaraj introduced "Tumaini Air" at the FAO World Banana Forum, highlighting how drone-sourced data can map fields and support precise plant protection, while noting the role of partners in global adoption. He was further invited to share his experience developing the tool with the American Association for the Advancement of Science (AAAS), an international forum that serves as a breeding ground for scientific collaboration.

“Phenotyping and phenomics are the most exciting and energetic emerging fields that I have been a part of, in no small part because most practitioners come from many different backgrounds.”

— Seth Murray, professor at Texas A&M University, speaking at the 2025 AAAS Meeting (https://bit.ly/3SLBLcS).

Towards Tatu: a framework for lasting impact

Pheno-i, Ona, Sikia, Tricot, and Tumaini are outlasting the lifespan of a typical research project: they are products for breeders and farmers to use, adapt, and improve. To support this evolution, the Alliance is developing **Tatu** (Swahili for “three”): an operational framework that represents the convergence of people, AI, and plants, and provides the enabling environment to turn future research into enduring, high-impact products. Tatu is the bridge between innovation and the sustained delivery of tools that work for farmers for years to come.

Explore more of our 2025 impact in digital tools

1,000
Plots per day measured by AI phenotyping technology, doubling data collection speed from 500 plots per day.

5
Agribusinesses piloted AI diagnostic tools to reduce climate risk for honey, poultry inputs, rice, solar irrigation, and soybean value chains.

Regenerative agriculture starts with regenerative crops

Approving new forages

Feed shortages are a persistent constraint for livestock farmers, compounded by increasingly erratic rainfall. But now, farmers in Kenya can grow two new varieties of forage grasses, specially developed to keep livestock well-fed despite drought conditions.

'Camello' is notable for tolerating pests like spider mites and spittle bugs, as well as its superior nutrient quality, while 'Massai' resists rust disease and is ideal for silvopastoral systems. Following two years of rigorous testing, in which both varieties were found to yield 5% more than average grasses, Camello and Massai were approved by the Kenyan government as being well-suited for local farming systems. This is the latest output from a longstanding crop breeding collaboration.

The crop varieties that reach farmers' fields are typically the product of years of selection and testing. Accelerating this process to deliver improved varieties, as we did in 2025 with high-yield forages and resilient rice, depends on longstanding, cross-regional partnerships.

In the late 1990s, the Alliance's Tropical Forages Research Program and the Mexican seed company Grupo Papalotla signed an agreement for the development and commercialization of interspecific hybrids of *Urochloa*, the most widely sown forage species in the world. Over more than 20 years, this science-industry partnership has translated scientific innovation into real-world impact, enabling the large-scale adoption of improved forage grasses across Latin America, Africa, and Asia. These hybrids have helped livestock producers increase productivity, enhance animal nutrition, and reduce the environmental footprint of grazing systems.

Today, some of these hybrids, together with forages from CGIAR genebanks held by the International Livestock Research Institute and the International Center for Agricultural Research in the Dry Areas, are being evaluated for their methane-reduction potential under the Low-Methane Forages project.

Supported by the Gates Foundation, Bezos Earth Fund, and Global Methane Hub, this project is evaluating approximately 6,000 of the 71,000 forage accessions available. It combines *in vitro* screening (in the laboratory) with *in vivo* validation (in animals), progressing from the identification of promising candidates to testing their performance using the state-of-the-art respirometry chambers installed on the Alliance's Americas hub in Palmira, Colombia.

After months of animal adaptation and system calibration, the first phase of in vivo methane measurements began last August, evaluating diets based on forages that had already shown strong mitigation potential under laboratory conditions. The forages that feed today's livestock may, in the near future, help cool the planet.

A new hybrid and three decades of rice collaboration

Rice can get lost in the weeds: literally, as plants can get choked out by their neighbors, decreasing their productivity and impacting farmer livelihoods. A new hybrid, Sicalis SH CL, was released in 2025 to help Latin American rice farmers overcome this challenge. Bred by the Alliance with Semillas de Huila and BAFSA Soluciones para la Agricultura, this newly certified seed was developed to retain favorable pre-existing characteristics of locally preferred rice, with additional herbicide resistance. By growing this variety, farmers are able to more selectively use herbicides to reduce weed growth and boost their harvests.

In 2025, the Alliance also celebrated 30 years hosting FLAR, the unique Latin American partnership that supports rice growers in the region. FLAR-bred rice is responsible for over 40% of the irrigated rice area in Latin America and the Caribbean, spanning from Brazil to Colombia, Peru, and Ecuador. In addition to renewing our agreement, the Alliance and FLAR opened a new laboratory space to analyze seed quality.

"This is a historic moment for FLAR and for the Latin American rice sector. The renewal of these agreements and the inauguration of the new seed quality area symbolize the strengthening of our alliance with the Latin American rice sector, as well as our commitment to constant innovation, to guarantee food security for millions of people in the region."

— Eduardo Graterol, director of FLAR until December 2025.

"It's about finding productive alternatives, varieties that are high-yielding and tolerant to climatic factors and to pests that may re-emerge due to the variability brought on by climate change."

— Patricia Guzmán, FEDEARROZ.

Explore more of our 2025 impact in crop breeding

6
National Agricultural Research and Extension Systems (NARES) developed and tested faster-cooking bean varieties.

25
Banana accessions from our genebank were recorded as being adopted by farmers.

New coalitions spur food systems policy into action

Multilateralism is struggling: achieving consensus on complex issues is increasingly difficult in a fragmented world. But coming together in smaller, targeted coalitions allows countries to demonstrate what is possible, and build positive momentum. Here we explore leverage points where the Alliance convenes knowledge and evidence to help governments scale up food and land systems change.

EAT-Lancet: common ground to mobilize communities

Six years after the first EAT-Lancet Report described a "planetary health diet", a new edition of the EAT-Lancet Commission deepened its description of fair, healthy, and sustainable food systems, with an emphasis on local and country contexts. The outstanding question: how do these recommendations turn into actions?

Alliance and CGIAR researchers took lead roles in the global modeling effort to identify transformative priorities that include shifting to healthier diets and improving production- both of which hinge on agrobiodiversity.

But the bottom line is that all the evidence in the world would not matter unless a host of fragmented stakeholders come together around it: AgriFood Finance and Trade; Chefs, Restaurants and Food Service; Cities; Consumers; Farmers and Fishers; Healthcare Professionals; Indigenous Peoples; National Policymakers; and Science.

Global scientific consensus does not automatically become policy: it does not restore degraded land, shift school meal procurement, or mobilize climate finance. That translation, from evidence to action, requires the right actors connected with shared mandates and interests. As the global development landscape shifts, the Alliance has been developing a more targeted approach to coalitions: recognizing that advocacy cannot be done alone, and we depend on partners for implementation.

These groups make up ten communities of action that connect frontline actors from around the world, and translate EAT-Lancet evidence into practices that address specific contexts and concerns. They are convened by partners with shared mandates and expertise (including our frequent collaborators The Agroecology Coalition, World Bank, and the SDG2 Advocacy Hub, and also led by other sectors ranging from the Culinary Institute of America to Physicians Association for Nutrition). The Alliance is specifically co-hosting the National Policymakers community with CGIAR and the Scaling Up Nutrition Movement. The Science group is also convened by Nexus Action (formerly known as the Montpellier Process), a community dedicated to strengthening science to policy uptake where Alliance staff, especially from our Montpellier office, provide a vital cornerstone.

New initiatives coming out of Belém

We saw something similar at UN Climate COP30 in Belém, where the guiding principle of "Global Mutirão" manifested in a new generation of coalitions to achieve climate commitments. Also here, the Alliance played a central role in launching and supporting three major initiatives that unite governments, research institutions, farmer organizations, and financial partners around actionable frameworks that bridge the gap between scientific evidence and on-the-ground implementation:

"Evidence shows every dollar invested in land restoration can generate up to $30 in economic benefits—yet inadequate risk assessment and impact tracking have constrained capital flows. RAIZ can change this by translating landscape restoration science into actionable guidance for structuring investment vehicles, embedding evidence-based metrics throughout fund lifecycles, and promoting rigorous monitoring systems that quantify climate, biodiversity, and livelihood outcomes."

— Sandra Milach, chief scientist at CGIAR.

1. RAIZ (Resilient Agriculture Investment for net-Zero land degradation) addresses one of agriculture's most pressing challenges—over 1.6 billion hectares of degraded agricultural land worldwide—by mobilizing diverse financing sources to support landscape restoration. The initiative maps degraded lands, identifies investable solutions, and connects countries with technical and financial partners to design restoration projects tailored to local needs.

"We must move beyond a patchwork of efforts toward true systems change. Through RAIZ, FOLU and its partners are bringing investors and farmers to the table with governments to co-design joint investment mechanisms at national level that align public incentives with private capital, restoring degraded farmland at scale."

— Morgan Gillespy, executive director of the Food and Land Use Coalition, in the press release announcing RAIZ's launch (https://bit.ly/3QYJiEN)

2. TERRA (Together for the Expansion of Resilient and Restorative Agroecology and Agroforestry) was launched by the Brazilian government and FAO to scale up agroecology and agroforestry systems. Having trained over 20,000 farmers, the initiative aims to improve the livelihoods of 8 million people and transform 15 million hectares of land to be more sustainable. TERRA uses five acceleration levers—strengthening farmer organizations, capacity building, blended finance, seeds and bioinputs, and market access—and provides countries with the tools, finance pathways and MRV frameworks needed to unlock climate and biodiversity investment at scale.

3. The Global Carbon Harvest Coalition tackles the evidence gaps and monitoring challenges that have prevented agricultural carbon removal practices from entering compliance markets, with a focus on pathways for finance at scale. The Alliance is coordinating a wide range of actors , pooling evidence from multi-country field trials and harmonizing measurement systems to create a common framework to track and scale up carbon removal.

Finally at COP30, the Alliance of Champions for Food Systems Transformation, hosted by CGIAR and staffed by the Alliance as well as the Food and Land Use Coalition, reported significant progress in mobilizing funds over the last two years: Brazil's US$1.7 billion agroecology plan, Sierra Leone's US$1 billion Feed Salone program, and Rwanda's US$430 million for conservation agriculture. Member countries Brazil, Norway, Sierra Leone, Cambodia and Rwanda, were joined by three new members: Colombia, Vietnam, and Italy, all of which have strong histories of collaboration with the Alliance.

Read more about what was accomplished at COP30 here

"At COP30, one message is loud and clear: it's about implementation; scaling tested solutions, mobilizing finance, and bringing them to communities who urgently need them."

— Maya Rajasekharan, managing director for the Americas at the Alliance.

What commitments look like on the plate: Brazil's school meals

The logic of coalitions also operates on a scale much closer to home for many Brazilians than the COP negotiations, and even the EAT-Lancet reports (where Brazil was a major contributor). The Alliance worked alongside IFPRI and Brazilian partners to inform public procurement policy for the country's National School Feeding Program (PNAE). By mandating that 30% of food must come from local farm, the program has incorporated local agrobiodiversity, including nutritious fruits and vegetables, into students' meals, while simultaneously improving smallholder farmers' market access. Showcased at COP30, this outcome demonstrates how our science informs policy at the national level in ways that reach ordinary people directly: a procurement rule change becomes nutritional improvement for millions of schoolchildren, while supporting smallholder farmers growing the local crops that qualify.

So what have we learned from the EAT-Lancet Communities, COP30 coalitions, Alliance of Champions, and Brazil's school meals? Science shapes policy when it is embedded in the right coalitions, connected to the right partners, linked to the right leverage points, and stays at the table until evidence becomes action.

Explore more of our 2025 impact in policy and advocacy

Nutrition-sensitive agriculture included in Vietnam's national policy framework.

Government, humanitarian, and development sectors in Honduras co-created a social protection policy: linking community wellbeing with climate resilience.

Senegal adopted a climate-smart investment plan based on inputs from 200 diverse stakeholders.

Our Impact

Key outcomes

11.6 M
People accessed climate services through our Accelerating Impacts of CGIAR Climate Research for Africa program

Since 2021, AICCRA has bridged gaps between climate science and farmers by strengthening systems, partnerships, and institutions, ultimately scaling up climate-smart agriculture in six countries.

650
Improved bean varieties distributed to farmers by the Pan-African Bean Research Alliance

Over the course of 30 years, PABRA has built a regional network of over 350 partners to disseminate biofortified, nutritious, and resilient seeds to smallholder farmers.

+68,700
Seed samples conserved at our two genebanks

Future Seeds and the International Musa Transit Center. This diversity of banana, cassava, beans and forages contains traits used for breeding varieties capable of resisting diseases and climate shocks.

+350,000
Native trees planted

Through our digital platform that verifies reforestation efforts and compensates farmers and nurseries.

80%
Less resource conflict due to our Ethiopian early warning system

Developed with communities, government, and national partners to turn satellite data into alerts that enable pastoralists to anticipate the risks posed by extreme weather.

Publications

1,855
Research outputs

Connecting topics including healthy diets, soil fertility, agroecology, social justice, school meals, pollinators, genomics and food composition data.

330
Peer-reviewed articles

In journals including Science, Nature, Global Food Security, Frontiers, and New Phytologist.

377
Policy and research briefs

Informing government decision making to reduce risk, meet global goals, and build long-term resilience.

Finance

US$188 M
implemented

Throughout the year by the entities of Bioversity International and the International Center for Tropical Agriculture (CIAT), combined.

86
Reserve days

Based on the organization's reserves to ensure financial stability and operational continuity throughout the year.

Our coverage

373,000
Followers

Staying in touch with the Alliance across LinkedIn, Facebook, X, and Instagram.

18
High-level events

Where we shared evidence and best practices with partners and decisionmakers, from the Africa Food Systems Forum and UNFSS+4, to New York Climate Week and COP30.

3,730
Media mentions

In global, national, and local news outlets including Mongabay, El Tiempo, El Espectador, The Daily Nation, Science Africa, and Rappler.

What Comes Next

Looking ahead to 2026, the Alliance will roll out a **refreshed strategic framework** that builds on this foundation: connecting the knowledge and experience of our first five years with a future-facing approach to scale cutting-edge research directly into communities, policies, and institutions. As funding patterns shift, so too must the way science-based organizations engage with partners. The private sector plays an increasingly central role not just as a funder, but as a co-developer and implementer of innovation. Longstanding relationships with national research institutes, government ministries, and development partners remain essential, and we are investing in those relationships as deliberately as ever.

We also must stay focused on farmers, market operators, and communities around the world, especially as in 2026 we recognize the International Year of the Woman Farmer. Any changes must include and benefit the people who are at the heart of our food and land systems.

The world needs applied science, scalable tools, and collaborations that link research, policy, finance, and private-sector action. This report is evidence that such combinations are already delivering.

Who We Are?

Our leadership and Board

Our partners

Learn about our charity

Alliance scientists

Explore projects

Our role in the CGIAR network

Explore the full Report
https://alliancebioversityciat.org/2025-annual-report

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