COP27 Fact Sheet: AIM for Climate Innovation Sprints
AIM for Climate Triples Number of Innovation Sprints at COP27

- 30 sprints: 8 innovation sprints announced at COP26 and 22 announced at COP27.
- Over $1 billion in increased investment in climate-smart agriculture and food systems innovation.
- To join the conversation with AIM for Climate partners, please visit the AIM for Climate Innovation Hub.
- Innovation Sprints are initiatives led and funded by partners to achieve a specific outcome or output in agricultural innovation
- Innovation Sprints generally align with one or more focal areas **Methane Reduction**, **Emerging Technology**, **Smallholder Farmers** in Low- and Middle-income Countries and **Agroecological Research**.
- Innovation Sprints may include elements of more than one focal area.

Innovation Sprints Summary Information (listed below in order of monetary amount, largest to smallest):

Accelerating Synthetic Nitrogen Reductions with Nitrogen-Producing Microbes
Pivot Bio is committed to eliminating the need for synthetic nitrogen and replacing it with biological nitrogen, reducing GHG emissions worldwide. To calculate these benefits we will track, quantify, and verify the reduced emissions from the avoidance of synthetic nitrogen. We are committing to **$291 million** over 4 years in both R&D and product development to rapidly scale new adoption across the globe by improving the nitrogen replacement capacity of our microbes.
Participants: Pivot Bio, SCS Global, Verra
***POC*:** Amanda De Jong, Head of Government Affairs, adejong@pivotbio.com

Climate Resilience For African Farmers Through Next Generation Weather Intelligence
TomorrowNow.org, Tomorrow.io and partners are pioneering an Africa-first innovation spirit to empower 20 million smallholder farmers over five years with next-gen location-based timely agri-weather services. Together, we build on established activities in East Africa, including efforts funded by the Bill & Melinda Gates Foundation, to leverage **$80 million** in private sector investment and **$20 million** in transformative philanthropy to connect governments and local agricultural value chain partners with next-gen weather intelligence and lay the foundations for rapid scale and sustainability.
Participants: TomorrowNow.org; Tomorrow.io; Bill & Melinda Gates Foundation; Kenya Agricultural and Livestock Research Organization; CGIAR; Mercy Corp Agrifin
***POC*:** Rei Goffer, Chief Strategy Officer, Tomorrow.io rei@tomorrow.io ; Georgina Campbell Flatter, Executive Director, TomorrowNow.org, georgina.flatter@tomorrownow.org

Climate-Resilient soil fertility management by smallholders in Africa, Asia, and Latin America

Addressing both climate challenges and the current fertilizer supply crisis, this sprint will enable and empower small-scale producers in target regions of Africa, Asia, and Latin America to achieve effective and efficient nitrogen fertilizer management over the next four years (2022-2025). By tailoring validated fertility management practices to their specific conditions, smallholders will optimize productivity, enhance climate resilience, and mitigate greenhouse gas emissions. With a planned budget of approximately **$89 million** until the end of 2025.

***Participants*:** African Plant Nutrition Institute, Morocco; African Fertilizer and Agribusiness Partnership (AFAP), South Africa; Bhakkar Arid Zone Research Institute (AZRI), Pakistan; Catholic Relief Services (CRS), Zimbabwe; The Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA), Botswana; Chinese Academy of Agricultural Sciences (CAAS), China; Ethiopian Institute for Agricultural Research, Ethiopia; Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), South Africa; Henan Agricultural University, China; Institut National de Recherche Agronomique, Morocco; Indian Council for Agricultural Research, India; International Fertilizer Development Center (IFDC), USA; Kenya Agriculture and Livestock Research Organization (KALRO), Kenya; Ministry of Agriculture (MAGA), Guatemala; Pakistan Agricultural Research Council (PARC), Pakistan; Universite Mohammed VI Polytechnique, Morocco; University of Hawaii, Tropical Plant Soil Sciences Department, USA; University of Minnesota, Institute of the Environment, USA; Syngenta Foundation, Switzerland; Instituto Nacional de Investigaciones Forestales, Agrícolas Y Pecuarias (INIFAP), Mexico

POC: Sieglinde Snapp, Sustainable Agricultural Systems Program Director, CIMMYT, s.snapp@cgiar.org

Enteric Fermentation R+D Accelerator

This Sprint has mobilized **$70 million** and aims to mobilize at least $200 million total from philanthropy, public and private sector in a global, coordinated research and development initiative to accelerate progress in development and implementation of methane mitigating technologies. The Sprint will address: long-term trials of feed additives; development of new additives; genetic tools and protocols to select for low-emitting livestock; microbiome research to underpin the above research areas; and information necessary to facilitate regulatory approval of mitigation technologies.

Participants: Global Methane Hub, Global Research Alliance on Agricultural Greenhouse Gases: Rumen Microbial Genomics Network and Feed and Nutrition Network; Animal Selection, Genetics and Genomics Network

POC: Hayden Montgomery, Program Director Agriculture, Global Methane Hub, hayden.montgomery@globalmethanehub.org

Agtech Accelerator: Cultivating Canadian Agtech

Agtech Accelerator is a venture capital-backed program established by Cultivator powered by Conexus, Economic Development Regina, and Emmertech to increase the investment, innovation, and adoption of climate-smart agriculture technology. Bolstered by the **$60 million** Emmertech fund, this three-year innovation sprint provides agtech startups across Canada and the UK with access to the capital, programming, and connections needed to address issues in food security and the climate crisis.
Participants: Cultivator powered by Conexus; Emmertech; Economic Development Regina; Innovate UK; Lucent Bioscience; UKKO AGRO; IntelliCulture; Techbrew Robotics; Livestock Water Recycling; FeedFlo; Parametrics; Farm Health Guardian; CrystaLabs; FarmSimple Solutions Ltd; AGvisorPRO; RAFT Solutions; Agrolabs; Small Robot Company; Crop Intellect; Smartbell; Fotenix
POC: Ryan Serbu, Program Coordinator, Cultivator powered by Conexus, ryan@cultivator.ca

Innovating Models for the Sustainable Scaling of Smallholder-Inclusive Agroforestry
On-farm agroforestry has proven benefits for income, agricultural productivity, adaptation, and mitigation on smallholder farms in low and middle income countries. This partnership leverages over **$50 million** in committed funding to plant 250M trees by 2025. In doing this, it will compare the cost-efficiency and effectiveness of four innovative scaling models, to pioneer the mass deployment of tree-planting for climate-vulnerable farmers in 9 African countries, with the goal of planting 1 billion trees in the next decade.
Participants: One Acre Fund; Rabobank; Syngenta; The Nature Conservancy
POC: Colin Christensen, Global Policy Director, One Acre Fund, colin.christensen@oneacrefund.org

Cellular Agriculture: Addressing Climate Change and Promoting Resilience in the Protein Sector
Cellular agriculture includes techniques for making animal products with significantly reduced environmental impact. Cultivated meat is a prime example: it can slash greenhouse gas emissions, land use and water use considerably. Through a **$40 million** investment in R&D over five years, this multi-stakeholder Innovation Sprint, carried out by Aleph Farms, enables a just transition to resilient production systems that enhance food security, spur economic growth, empower local communities and foster regional cooperation.
Participants: Aleph Farms; L-Catterton; VisVires New Protein; Synthesis Capital; Food Tank; Christensen Global; CPT Capital; Strauss Group
POC: Lee Recht, PhD, VP Sustainability, Aleph Farms, lee.recht@aleph-farms.com

Growing a more sustainable global food system through vertical farming technology

Crop One Holdings and Emirates Flight Catering entered a **$40 million** joint venture to open ECO 1 in Dubai, UAE. The 330,000 sqft facility will provide food security for the Middle East by producing over three tons of high-quality leafy greens daily, using 95% less water than conventionally grown produce. ECO 1 is designed for continuous output of clean leafy greens grown without pesticides or chemicals. Crop One is helping grow a more sustainable global food system through its industry-leading vertical farming technology.
Participants: Crop One Holdings; Emirates Flight Catering
POC: Jackie Hynes, Director of Marketing and Communications, Crop One Holdings, Inc., jackie.h@cropone.ag

IBM Sustainability Accelerator
The IBM Sustainability Accelerator is a pro-bono social impact program advancing nonprofit and government initiatives that support vulnerable populations while addressing environmental challenges, including climate change, extreme weather, and pollution. IBM will provide the first cohort of participating organizations with technology and expertise to accelerate climate-smart agriculture solutions. Partners are welcome globally. Through 2025, Accelerator projects will receive an estimated market value of **$30 million** in IBM support including $10 million focused on sustainable agriculture.
Participants: IBM; Heifer International; Plan21 Foundation; The Nature Conservancy, India; Deltares; Texas A&M AgriLife
POC: Michael Jacobs, Sustainability Leader, Corporate Social Responsibility, IBM, michael.jacobs@ibm.com

Accelerating Sustainable Protein Innovation through Research
To put global agriculture on a path to mitigate 10 Gt CO2eq per year from protein production by 2050, the Good Food Institute and EIT Food, with support from Climate and Land Use Alliance, and Good Energies Foundation, Climate Advisers, are investing **$41 million** in open-access research globally to accelerate the development of sustainable plant-based and cultivated meats that are comparable in taste and price to conventional meat, and can generate new economic opportunities. Widespread adoption of sustainable proteins will mitigate direct methane emissions from agriculture, reduce deforestation, and free up millions of hectares for conservation and climate-focused land management.
Participants: The Good Food Institute; EIT Food; Climate and Land Use Alliance (CLUA); Good Energies Foundation; Climate Advisers
POC: Stephanie von Stein, Senior Associate Director of International Engagement, Stephaniev@gfi.org

Digital resources for scaling up climate-informed agroecological transitions

The Agroecological TRANSITIONS' Inclusive Digital Tools project (ATDT) aims to leverage **$25 million** to develop digital solutions for smallholder farmers to scale up agroecological practices. The program will expand access of low-cost digital technical advisories and performance assessment tools to 100K farmers in ten countries and five value chains in Asia, Africa and Latin America. This will enable farmer co-creation and rapid development of site-appropriate climate change resilience and mitigation measures based on agroecological principles.
Participants: CGIAR; Alliance of Bioversity International & International Tropical Research Center (CIAT); International Rice Research Institute (IRRI); Center for International Forestry Research & World Agroforestry Center (CIFOR-ICRAF); Transformative Partnership Platform on Agroecology (TPP); University of Vermont/ Gund Institute for Environment; Clim-Eat; Solidaridad; Sustainable Rice Platform (SRP); Institut d'Economie Rural, Mali (IER); Institut Sénégalais de Recherche Agricole/Senegalese Institute for Agricultural Research (ISRA); Global Forum for Rural Advisory Services (GFRAS); French Agricultural Research Centre for International Development (CIRAD); International Fund for Agricultural Development (IFAD); European Commission
***POC*:** Lini Wollenberg, Project Leader, ATDT, Alliance of Bioversity International & International Tropical Research Center, L.wollenberg@cgiar.org

Livestock, Climate and System Resilience
A new **$24 million** initiative led by the OneCGIAR, Livestock, Climate and System Resilience (LCSR) is designed to meet the "double burden" challenge that climate change poses for livestock production. It addresses both adaptation and mitigation priorities for livestock production systems in Kenya, Ethiopia, Tanzania, Mali, Senegal, Guatemala, and Colombia, delivering strategic, well-targeted action research that provides answers to the tough choices and tradeoffs, as well as 'investable' solutions that influence policy and attract climate finance.
Participants: International Livestock Research Institute (ILRI); Alliance of Bioversity International & International Tropical Research Center (CIAT); International Center for Agricultural Research in Dry Areas (ICARDA)
***POC*:** Polly Ericksen, Program Leader, CGIAR, p.ericksen@cgiar.org

Innovative and impact oriented delivery of climate-resilient bean varieties by African research networks
The Pan-Africa Bean Research Alliance (PABRA) and its partners will empower seed system actors to deliver climate-resilient bean varieties more efficiently to smallholder farmers in Burundi, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. Mobilizing **$20 million** toward a demand-led and research-guide 'bean corridor' approach, this sprint innovation will accelerate bundling and scaling genetic and institutional innovations to improve bean productivity for three million farmers, two million of them accessing remunerative markets and 60% being women.
***Participants*:** PABRA
***POC*:** Jean Claude Rubyogo, Bean Programme Leader & Pan Africa Bean Research Alliance Director, African Hub, j.c.rubyogo@cgiar.org

The environmental and economic power of climate-smart agriculture

There is a way to help farmers grow their incomes more sustainably using Climate-smart agriculture. Collaborating with USAID, the Rainforest Alliance, and industry partners, ofi is working with cocoa farmers in Ghana and Côte d'Ivoire, under the Resilient Ecosystems and Sustainable Transformation of Rural Economies (RESTORE) project. Over five years, USAID, ofi, and partners are investing **$14 million** in supporting 15,000 farmers to acquire skills and tools to better protect their livelihoods and landscapes.
Participants: USAID (United States Agency for International Development); The Rainforest Alliance; ofi (Olam Food Ingredients); Nestlé; Mars Wrigley; Costco Wholesale; Mondelēz International; Blommer Chocolate Company
POC: Tracey Duffey, External Funding – Washington, DC, ofi - Olam Food Ingredients, tracey.duffey@ofi.com

Climate Smart Rice Technology Project
The International Rice Research Institute (IRRI) and Bayer Crop Science will engage with smallholder farmers in Asia and Africa in research on sustainable adoption of direct seeded rice. The project's goal is to improve farmer livelihoods integrating gender equity while reducing greenhouse gas emissions in the rice growing systems. Through 2025, USAID will invest **$8.5 million** at IRRI in partnership with Bayer Crop Science contributing an additional up to **$4 million** of in-kind support.
Participants: The International Rice Research Institute; USAID; Bayer Crop Science
POC: Stella Salvo, Head of Breeding Partnerships for Smallholder Farming, Bayer Crop Science, Stella.salvo@bayer.com; Hans Bhardwaj, Head, Rice Breeding innovations, International Rice Research Institute (IRRI), h.bhardwaj@irri.org

Unlocking the potential of enhanced rainfed agriculture to improve Africa's resilience to climate change
The Transforming Investments in African Rainfed Agriculture (TIARA) initiative is challenging the status-quo on rainfed agriculture with an evidence-based approach to unlock the knowledge, skills and behaviours that are necessary for investments in climate smart enhanced rainfed agriculture to happen at scale in Africa. Led by SIWI and CIFOR ICRAF, the TIARA project aims to mobilize **$6.9 million** through 2025 and build the case for sustainable funding mechanisms such as Payments for Ecological Services.
Participants: SIWI – Stockholm International Water Institute, CIFOR ICRAF - Centre for International Forestry Research and World Agroforestry
POC: Kasonde Mulenga, Programme director - TIARA, kasonde.mulenga@siwi.org

Capturing plant diversity with new tools to accelerate deployment of climate-smart legumes with improved disease resistance

Climate change is a growing threat to food security, reducing crop yields and increasing vulnerability to pathogens and pests. Legumes are a critical source of nutrition for people, animals, and soils. 2Blades will exploit proprietary genomics tools and germplasm resources developed through an initial $35 million investment, with new investment of **$6.6 million** to economically scale gene discovery, and accelerate deployment in legumes for Africa. 2Blades seeks partners for development and funding totaling $12.7 million to further scale efforts.
Participants: The Sainsbury Laboratory; Bayer Crop Science; Kaneka Corporation
POC: Diana Horvath, President, Co-Founder 2Blades, dmh@2blades.org

Nourishing Prosperity Alliance (NPA)
NPA is led by Land O'Lakes Venture37 with Forage Genetics International, Corteva Agriscience, and the International Livestock Research Institute. The pilot launched in Kenya in 2020, providing a scalable, market-wide solution to key gaps in the animal nutrition market to improve dairy production, boost climate resilience among farmers, increase access to animal-sourced foods, and reduce emissions by promoting climate-smart agriculture and optimized animal nutrition practices. NPA has crowded in over **$6.6 million** in in-kind and financial investments.
***Participants*:** Land O'Lakes Venture37; Corteva Agriscience; Forage Genetics International; International Livestock Research Institute
***POC*:** Giselle Aris; Group Director, Strategic Partnerships and New Ventures; gdaris@landolakes.com

State-of-the-art remote sensing of methane from rice cultivation
Paddy rice emissions due to flood duration vary significantly across regions and the inability to monitor emissions cost-effectively at scale and in real-time limits mitigation practices. This Sprint will integrate field-scale data, biogeochemical modeling, and satellite observations to develop the ability to measure CH4 emissions from rice fields directly from space. The Sprint leverages existing investment totalling **$4 million** and seeks additional funding for analysis, ground-truth data collection, scenario-building exerciseslivestockgre, and dissemination.
Participants: University of Arkansas Dept. of Biological & Agricultural Engr.; University of Illinois Agroecosystem Sustainability Center; Global Research Alliance on Agricultural GHG's Paddy Rice Research Group (GRA PRRG); FONTAGRO; National Agricultural Research Institute of Uruguay (INIA); Inter-American Institute for Cooperation in Agriculture (IICA); USDA-ARS; La Universidad Nacional Agraria La Molina (UNALM) de Perú; Conagro Semillas S.A. de Panamá; Fondo Latinoamericano para Arroz de Riego (FLAR); University of Otago, New Zealand; MethaneSat LLC; Global Methane Hub; Environmental Defense Fund; Science Oversight Committee International Methane Emissions Observatory (IMEO)
POC: Hayden Montgomery, Agriculture Program Director, Global Methane Hub hayden.montgomery@globalmethanehub.org

Pathways to Dairy Net Zero

The *Pathways to Dairy Net Zero* (P2DNZ) is a program across the global dairy sector to reduce GHG emissions. P2DNZ has identified 10 emerging dairy countries as "Early Adopters" for the program that together represent >30% of global dairy GHG emissions. The initiative will help transform the dairy sector in these countries to achieve major reductions in GHG emission. PDNZ has already secured **$3 million** commitments and will attract additional funding from the Green Climate Fund and other donor groups to make the transition possible.
***Participants*:** International Dairy Federation; SAI Platform; International Livestock Research Institute; IFCN Dairy Research Network; Dairy Sustainability Framework; Global Research Alliance on Agricultural Greenhouse Gases; UN Food and Agriculture Organization
POC: Donald Moore, Executive Director, Global Dairy Platform, donald.moore@globaldairyplatform.com

Rice plant genetics and the root microbiome: role in mediating trace gas emissions
With a **$3 million** initial investment, colleagues at the University of California Davis and Berkeley are leveraging their team's interdisciplinary expertise to achieve a systems-level understanding of greenhouse gas fluxes in rice plants at the plant-microbe interface. They will carry out large scale phenotyping and genotyping approaches to develop new tools to mitigate greenhouse gas emissions.
Participants: University of California Davis and Berkeley (UC Davis and UC Berkeley); Innovative Genomics Institute (IGI); International Rice Research Institute (IRRI); The Alliance of Biodiversity International and the International Center for Tropical Agriculture (CIAT); Africa Rice Center (AfricaRice); National rice research institutes via Global Research Alliance on Agricultural Greenhouse Gases (GRA); Dale Bumpers National Rice Research Center (DBNRRC), USDA-ARS; Global Methane Hub (GMH)
POC: Pamela Ronald, Distinguished Professor, University of California, Davis, pcronald@ucdavis.edu

ESG Framework for Alternative Protein Products
FAIRR Initiative and the Good Food Institute (GFI), with several partners including Breakthrough Institute, have developed a standardized environmental, social and governance (ESG) framework for the alternative protein industry. Alternative proteins generate lower emissions and use less land and water than conventionally produced animal proteins. Robust ESG measurement tools will enable companies to demonstrate to investors and the market the climate benefits of alternative proteins, and allow for comparability between meat-based and alternative protein products and portfolios. Total expected investment of **$1.27 million** over 5 years.
***Participants*:** FAIRR Initiative; Good Food Institute; Breakthrough Institute
POC: Helena Wright, Policy Director, FAIRR, contact@fairr.org

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