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COP28 Fact Sheet: AIM for Climate Innovation Sprints

- 27 AIM for Climate Innovation Sprints announced at COP28, totalling 78 sprints since the launch of AIM for Climate initiative at COP26.
- Over \$5 billion in total increased investment in climate-smart agriculture and food systems innovation since the launch of AIM for Climate, demonstrating continued support from private sector and public-private partnerships for agricultural innovation.
- An Innovation Sprint is an increase in aggregate self-financed investment from non-government partners to achieve an outcome/output in agriculture innovation and for climate-smart agriculture and food systems, to be completed in an expedited time frame.
- New Innovation Sprints span the four AIM for Climate focal areas: Methane Reduction, Emerging Technology, Smallholder Farmers in Low- and Middle income Countries, and Agroecological Research.
- To join the conversation with AIM for Climate partners, please visit the <u>AIM for</u> <u>Climate Innovation Hub</u>.

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

COP28 Action Agenda on Regenerative Landscapes

The COP28 Action Agenda on Regenerative Landscapes is co-chaired by COP28, the World Business Council for Sustainable Development (WBCSD), and Boston Consulting Group and supported by the UN High-Level Climate Champions. With a **\$500 million** investment, the partnership aggregates, accelerates, and amplifies existing efforts and new commitments from top food and agriculture players to transition large agricultural landscapes to regenerative agriculture by 2030. This initiative aims to translate commitments into tangible action and projects, benefiting people, climate, and nature.

Participants: WBCSD, Rabobank, Indigo Ag, Bunge, OCP Group, Danone, ofi, PepsiCo, Sysco, <u>The Nature Conservancy</u>, Unilever, UPL, Google, Syngenta Group, Cargill, State of Para (Brazil)

Transformative Agri-Food Processing Unit in Onicha-Ugbo, Delta State, Nigeria

The development of a ground-breaking **\$500 million** Agri-Food Processing Unit in Onicha-Ugbo, Delta State, Nigeria, promises to revolutionize food manufacturing, empowering local farmers, fostering self-sufficiency, and elevating living standards. This transformative initiative will instill confidence in farmers to expand cultivation, secure financing, and transition from subsistence to commercial sales. The unit is poised to significantly transform the agricultural landscape, driving economic progress, and catalyzing positive change in the region's socio-economic fabric.

Participants: Tingo Inc., USAID

Scaling Sustainable Supply Chains

ADM is powering sustainability across the industries in which we participate. With a total investment of **\$350.4 million**, ADM's efforts span their business and value chain, and include enrolling 4 million acres of regenerative agriculture by 2025; investing broadly in fermentation technology that powers new plant-based products; a \$350 million investment in feedstock for renewable diesel; and \$400,000 in support for the Lifesaving Education and Assistance to Farmers (LEAF) Program in Kenya.

Participants: ADM, PepsiCo, Nestlé USA, Spiber, LG Chem, Concern Worldwide

Microbes for enhancing volume and stability of soil carbon

By harnessing the power of microbes, Loam Bio unlocks the opportunity for gigatonne scale carbon removal from the atmosphere, while increasing soil health and productivity in agriculture. **\$105 million** has been committed to catalyze the market for high quality, robust carbon removal and sequestration in broadacre cropping soils. By 2025, this will be deployed into upscaled manufacturing capacity, continued product development and R&D to launch products for new crop types and microbes, as well as farmer education and extension activities to drive adoption of the technology across the globe.

Participants: Loam Bio, Acre Venture Partners

Expanding Climate Smart Toolkit with Innovative RNA Crop Protection

GreenLight Biosciences is developing and commercializing climate smart biopesticides that are effective, easy to use, and environmentally friendly. GreenLight has invested **\$100 million** to launch its first series of products by 2028, including a solution to the number one threat to bees, and is advancing exploration into additional segments such as weed control. These efforts promise to protect farmers' yield on over 6 million hectares and improve bee survival up to 70% while respecting biodiversity. **Participants:** <u>GreenLight Biosciences</u>

The Vision for Adapted Crops and Soils

The Vision for Adapted Crops and Soils (VACS) aims to foster more resilient food systems, with an initial focus on the African continent. VACS seeks to boost agricultural productivity and nutrition by developing diverse, climate-resilient crop varieties and building healthy soils. Through bilateral and private sector partnerships, VACS will mobilize resources for agricultural R&D with both direct and in-kind contributions. VACS has invested **\$100 million** in new funding.

Participants: U.S. Department of State, African Union, Food and Agriculture Organization of the United Nations (FAO)

Local, Circular Animal Feed and Bio-Fertilizer Solution Addressing Planetary and People Health at Scale in Rwanda

Increasing sustainable nutrition while delivering a positive environmental impact, Food Systems for the Future and partners will build and operate Africa's first automated insect protein production facility. The Kigali-based facility will upcycle the City's organic waste into a protein-rich feed input as well as a soil-enriching biofertilizer, reducing Rwanda's reliance on both soy-based feed and chemical fertilizer. Consequently, it will support the poultry and aquaculture industry's ability to produce affordable and accessible protein while also reducing CO2 emissions. Supported by proven global technology, local business acumen, and the national Rwanda government, the **\$55 million** project will come online in 2025.

Participants: Food Systems for the Future, Protix, Government of Rwanda, Pegasus Capital Advisors

Investing in Product Pathways for Low-carbon Biofeedstocks

United Airlines Ventures along with Tallgrass and Green Plains Inc. – Blue Blade Energy will invest up to a combined **\$50 million** to develop and commercialize a novel Sustainable Aviation Fuel (SAF) technology. They will be finalizing development of this technology over the next two years. If successful, Blue Blade aims to commence construction of a pilot facility in 2024, followed by a full-scale facility that could begin operations by 2028.

Participants: United Airlines, United Airlines Ventures, <u>Tallgrass Energy Partners</u>, <u>Green Plains Inc.</u>, <u>Pacific Northwest National Laboratory</u>

Scaling Climate Smart Agriculture with Carbon Finance

Mati Carbon's mission is to enable climate resilience for smallholder farmers by improving crop productivity and using direct benefits transfer from carbon removal economics. Spreading rock dusts in farm lands removes carbon dioxide by accelerating the natural weathering process and improving crop productivity for smallholder farmers. Mati Carbon is investing **\$50 million** over 4 years with a focus on developing scientific robust, scalable, and cost effective carbon removal that will benefit the smallholder farmers in the global south.

Participants: Mati Carbon

Scaling-up Innovative Climate Adaptive Practices and Technologies for Smallholders in Bangladesh

BRAC and the Syngenta Foundation for Sustainable Agriculture aim to forge a Smallholder Action Coalition for Climate Adaptation (SACCA). A total of **\$50 million** will be invested from 2024-2028 to implement large-scale climate action programs. The initial project in Bangladesh plans to support one million smallholders (>35% women) to diversify their farms and adopt climate-smart innovations.

Participants: <u>BRAC</u>, <u>Syngenta Foundation for Sustainable Agriculture</u>, <u>Futures Inc</u>, <u>Varaha</u>, <u>Green Delta Insurance Company Ltd</u>, <u>Foundation for Food and Agriculture</u> <u>Research</u>, <u>World Vision</u>, <u>The Nature Conservancy</u>

Unlocking Food Security in Africa with Sustainable Energy Solutions

GENESIS aims to pioneer the wide-scale deployment of sustainable, efficient, and scalable solar-powered drip irrigation and solar thermal systems to empower local farmers and enhance maize production in Nigeria and decarbonise dairy production in Zambia. GENESIS plans to invest at least **\$50 million** for the next two years, through 2025, for these solutions across Zambia and Nigeria. As part of the programme, training will be provided on efficient agricultural practices, solar panel installation, and operational system management with a particular focus on women empowerment.

Participants: <u>GENESIS Energy Group, USAID, Michigan State University (Feed the Future Innovation Lab on Policy Research Capacity and Influence)</u>, <u>Feed the Future Innovation Lab for Small Scale Irrigation</u>

Water and Energy for Food MENA Regional Innovation Hub

Water and Energy for Food (WE4F) in the MENA region provides financial support, technical assistance, and investment facilitation to scale Small to Medium Size Enterprises (SMEs) that impact all sectors of the nexus (food, water, energy). Up to 50 innovators are supported with up to \$250,000 each to reach 750,000 smallholder farmers and end-users, of which 25% are women. Until mid-2025, WE4F seeks to leverage and expand upon the **\$33 million** mobilized so far.

Participants: <u>Berytech</u>, <u>cewas</u>, <u>Chemonics Egypt</u>, <u>International Water Management</u> <u>Institute (IWMI)</u>

Addressing Gender Inequality through Climate Action in Agrifood Systems

The CGIAR and 20 partners are leveraging **\$31 million** USD over 4 years (2023-2027) to ensure that climate innovations in agrifood systems are designed to work for women and rolled out in ways that address underlying gender inequalities. The Sprint will accomplish this by: 1) testing new climate innovations that address both climate change and gender inequality, 2) promoting more widespread, inclusive uptake of climate solutions, and 3) developing metrics to measure progress towards these goals. Participants: CGIAR, USAID, ICAR-Indian Veterinary Research Institute, United Nations World Food Programme, Zambia Alliance of Women (ZAW), Indigenous Women and Girls Initiative, University of Reading, United Kingdom, East African Crude Oil Pipeline Host Communities (EACOP HC), Self Employed Women's Association (SEWA), M S Swaminathan Research Foundation, Tulinde Boychild Initiative, Biodiversity Television Network (BTN-TV), Groupement des Jeunes Universitaires pour l'Avancement d'Haiti (GJUPAH), Center For Minority Rights Development (CEMIRIDE), Easytech Farm Solutions Limited, Fairtrade International, BAIF Development Research Foundation, RTI International, AgMIP: Agricultural Model Intercomparison and Improvement Project, Digital Green Foundation, E-Farmers Bangladesh Ltd

From Food Waste to Food Access

The Global FoodBanking Network (GFN) is the only global organization that recovers and redistributes food surplus at scale and engages member food banks in nearly 50 countries. GFN will accelerate food insecurity and hunger reduction through four key mechanisms: mapping and leveraging food loss and waste data, quantifying the environmental benefits of food recovery, scaling technological and logistical solutions to increase food bank capacity, and expanding their policy research to drive food systems change. GFN estimates that with an investment of **\$31 million** from 2021 through 2025, these combined interventions could reduce food loss and waste by a total of 5%, which corresponds to a reduction of 7.5 million metric tons of CO2e. However, GFN will need scaled viability and investment in the food recovery and redistribution model to achieve these bold and critical goals.

Participants: The Global FoodBanking Network

Cloud to Edge Climate Smart Agriculture

Veea and partners are directing **\$30 million** to climate smart innovation for smallholder farms in Nigeria. This sprint combines the Veea Edge Platform with LoRaWAN sensors to provide "ground truthing" of soil condition, microclimate, and other indicators of crop health. This data is integrated with Tingo Agri-Tech "NWASSA" cloud platform, fusing local with cloud data, and leveraging AI to provide small-holder farmers actionable insight to maximize productivity and carbon capture. It will minimize resource utilization and optimize the supply chain to reduce waste and maximize crop value.

Participants: <u>Veea Inc</u>, <u>Tingo Group</u>, <u>19labs</u>, <u>Tridium</u>, <u>MicroClimates</u>, <u>Microsoft</u>, <u>Opti-Harvest</u>, <u>USAID</u>, <u>ViaSat</u>, <u>Trilogy Networks</u>

CarbonNOW VSI: Pioneering Scope 3 Emission Reduction in Food, Beverage, and Fashion

Locus Agriculture aims to make food and fashion products more sustainable by using non-GMO biological soil inoculants that reduce N2O emissions by over 30%. This method also increases nitrogen use efficiency and yields by over 10%, while building back soil organic carbon stocks by 7.5 mtons CO2e/hectare versus conventional practices. With promising results on more than 120,000 hectares in 2022/2023, Locus and partners are looking to expand to 0.5-1 million hectares abating up to 6 million mtons CO2e. Locus Agriculture has invested over \$8 million with a further \$12 million earmarked for the next two years, for a **\$20 million** total investment.

Participants: Locus Agriculture, University of Illinois, Clemson University

Gigatonne - Rapidly, Fairly, and Effectively Tackling the Climate Crisis

Gigatonne trains and resources teams worldwide to reduce, remove, and avoid GHG emissions, while providing jobs, food, and energy security to people in the bottom 20% of the socio-economic bracket. Teams develop scalable prototypes in food waste management, zero emissions transport networks, renewable energy, regenerative agriculture, land use, and carbon sequestration. Gigatonne is raising a **\$15 million** Global Fund with their coalition partners to support the work of teams whose sustainability is bolstered by "Super Credits" which emphasize radical transparency.

Participants: <u>10-in-10</u>, <u>GIZ</u>, <u>Obanayo Consulting</u>, <u>Education Development Center</u>, <u>Zambian Governance Foundation for Civil Society (ZGF)</u>

Indoor Vertical Recirculating Aquaculture System Shellfish Production

Maine Shellfish Developers and the Bigelow Laboratory for Ocean Research have spent six years developing a proprietary vertical recirculating aquaculture system and microalgae feed formulations for on-land oyster cultivation, insulated from runoff, pollution, and climate risks. By combining food-safe industrial waste to produce micro-algae, renewable energy to drive pumps, and a recirculating aquaculture system, this system will be cost effective and net negative in comparison to protein production through poultry, beef, pork, and finfish farming. This sprint is investing **\$7.4 million** from 2024-2026.

Participants: Maine Shellfish Developers, Bigelow Laboratory for Ocean Research

Regenerating Soil with Run Tian

The Run Tian project is a transformative initiative to advance soil health in the Huang-Huai-Hai region of North China, demonstrating the agronomic and economic viability of reduced or no-till field management. Syngenta Group, The Nature Conservancy, and partners aspire to transition 800,000 hectares of Chinese farmland to sustainable practices by the end of 2023. The sprint commits over **\$5.27 million** in investment: \$3 million have been invested in the two work streams since 2020, and over \$2 million are planned for further investment through 2025.

Participants: Syngenta Group, The Nature Conservancy, China's Ministry of Agriculture and Rural Affairs (MARA), United Nations Development Program (UNDP)

Accessible Digital Measurement for Climate-Smart Agriculture

Agerpoint Capture is an AI-powered spatial intelligence app for smartphones and tablets that digitally measures and monitors crops and forests. Agerpoint is investing **\$5 million** to make the app more broadly accessible on lower-cost devices by the end of 2025 and to advance machine learning analytical models. This expansion will further democratize access to digital plant health and growth metrics, particularly for smallholder farmers and landowners, providing better data transparency and traceability for climate-smart agriculture.

Participants: Agerpoint

AgroSpace: Revolutionizing Remote Sensing for Food Security

Enterprise Neurosystem is awarding **\$5 million** USD of in-kind resources to AgroSpace, the winner of the AIM for Climate Grand Challenge: Leveraging the Power of AI and Machine Learning, to develop the project "Revolutionizing Remote Sensing for Food Security." The prize from members of Enterprise Neurosystem includes a year of Kove Software Defined Memory (Kove:SDM™), Red Hat RHODS subscriptions, Equinix Bare Metal Infrastructure, AWS Cloud Credits, IBM Cloud Credits, and one-on-one access to the Enterprise Neurosystem experts to provide assistance on their AI, Data Science, Software, and Hardware projects. As a result, AgroSpace developed its first digital

agriculture product IrriSmart, which uses satellite data and analyses of weather patterns to measure soil moisture content and water consumption in plants, determining irrigation schedules for farms and regions. Leveraging data from NASA and the European Space Agency, IrriSmart helps farmers maximize their crop yield using minimal water.

Participants: Enterprise Neurosystem, AgroSpace

Scaling small-scale dairy farmer enteric methane mitigation through climate finance

Reducing the methane-intensity of milk is critical to achieving climate change goals and feeding a growing population. This sprint will reduce the methane-intensity of milk in Ethiopia by using climate finance to incentivize dairies to provide methanereducing, climate smart products and services to their smallholder farmer suppliers. RTI International and partners will leverage **\$5 million** of public and private sector support to develop and operationalize a scalable model suitable for smallholder farmers in developing countries.

Participants: <u>RTI International</u>, <u>Family Milk</u>, <u>First Consult</u>, <u>Climate Neutral Group</u>, <u>Global Methane HUB</u>

Low cost, high volume sargassum extract for crops

Carbonwave is transforming the largest seaweed bloom on the planet, sargassum, from a source of Caribbean methane and ecosystem destruction into an agricultural yield enhancer, an award winning worldwide first seaweed-based cosmetic emulsifier, and a leather alternative. Millions of hectares can be treated, reduce nitrogen use, and avoid methane when sargassum rots. Carbonwave and partners are mobilizing **\$4.38 million** to develop, demonstrate, and deploy their Sarga Agriscience extract to increase crop yields 4-12% for a 3-15X ROI for farmers.

Participants: Carbonwave, Sarga Agriscience, Seabalance 2000

MethaneNow: Tackling CH4 Emissions in Ruminant Livestock and Paddy Fields

Locus Agriculture's low-cost non-GMO biologicals cut enteric methane by 20-80% in university trials while showing significant animal health & productivity improvement. This reduction if realized globally is equivalent to 0.5 billion mtons CO2e. The same platform inhibits methanogens and can potentially improve nutrient efficiency in rice. Locus has invested over **\$3.5 million** in research and development and are looking for co-development/funding partners to finish development and deploy commercially at scale.

Participants: Locus Agriculture, Locus Animal Nutrition, UC-Davis, UF, Penn State

From Rain to Grain: Climate Intelligent Solutions for Sustainable Farming

This sprint focuses on climate-smart agriculture by reducing food loss, waste, and adapting to climate change. Ignitia will develop a database for AI-driven insights, including climate risk scoring, and build strong strategic partnerships with food supply chain stakeholders for scale. With an investment of **\$3 million**, the expected impact includes empowering 1 million individuals in Sub-Saharan Africa, promoting behavior change for sustainable farming, reducing yield losses by 20-25%, and cutting down CO2 emissions through efficient practices.

Participants: ignitia

Accelerating African Women's Leadership in Climate Action

The yawning gender gap in African agricultural research and development and women farmers' low uptake of climate innovations hinders Africa's capacity to cope with climate change. This **\$2.5 million** initiative will increase numbers and experiences of African women leading equitable climate solutions. Over the next two years, this initiative will build a pool of confident, capable African women equipped to lead climate research, enhancing their ability to influence policy changes for improved smallholders' livelihoods.

Participants: African Women in Agricultural Research and Development (AWARD), The United Nations Foundation, Feed the Future Innovation Lab for Collaborative Research on Sustainable Intensification

Cutting Food Waste to Reduce Landfill Methane Emissions

Food waste causes an estimated 10% of global greenhouse gas emissions. To reduce food waste, California strawberry growers and three large retailers have partnered with The Pacific Coast Food Waste Commitment to identify where and why food is wasted in the fresh strawberry supply chain and pilot innovative solutions to mitigate food waste hotspots. This sprint is investing **\$150,000** with the aim to increase investment to build out the pilot recommendations.

Participants: World Wildlife Fund

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