Annex 2: Progress against priority actions formulated in the 2023 Agriculture Breakthrough Agenda Report

Area	What progress has been made?	What more needs to be done?	2024 status
A1 International climate finance. Deliver greater quantity and quality of climate finance to support the deployment of sustainable agricultural technologies and approaches with proven effectiveness. There should be a particular focus on agroecological and other sustainable innovative approaches, technologies that reduce food loss and waste (FLW), technologies that reduce livestock and fertilizer emissions, and crop and livestock breeding technologies.	**1.1** No update available **1.2** In spring 2024, the first FAST Partnership Members meeting took place, and a work plan was agreed upon. Recent work plan activities included online trainings, publications on voluntary carbon markets to finance agrifood transitions and climate-related development finance to agrifood systems, mapping of climate finance opportunities, and establishing mechanisms for peer-to-peer learning. **1.3** The Taskforce on Access to Climate Finance (chaired by Rwanda and the UK) has worked with a growing group of climate finance providers and recipients to deliver on its published Principles and Recommendations for access to finance for climate and nature action. A group of 'pioneer' countries has been testing this approach: Bangladesh, Fiji, Jamaica, Mauritius, Rwanda, Somalia and Uganda. 2024 has seen steady progress under the pioneer country trials. Pioneer country governments have, with Taskforce support, started to identify coordination mechanisms, institutional capacity and financing vehicles needed to adopt a more programmatic approach to delivering national climate priorities. Mobilizing international climate finance for proven agricultural technologies and approaches has featured where it is a priority of the pioneer country government, including in Rwanda and Uganda. **1.4** The Crop Trust held two webinars in June 2024. The first session, Biodiversity and Climate Funding Sources for Crop	The UK will continue to explore opportunities for the Taskforce on Access to Climate Finance to improve access to a wider spectrum of finance for climate and nature action, based on a country-led approach reflecting the priorities of our partners in the Global South. That includes supporting the mobilization of private climate finance and introducing innovative financial tools and instruments, whilst also supporting countries to mainstream climate finance across national plans and budgets. There needs to be more international finance mechanisms that directly benefit farmer organizations, as well as increased blended finance mechanisms. Countries should repurpose budgetary transfers to individual farmers, which distort trade and production and are environmentally harmful toward funding R&D to enhance the productivity of the agriculture sector	Some progress made

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	Diversity, was joined by Geoffrey Hawtin, Executive Board Member of the Crop Trust, and one of the 2024 World Food Prize Laureates, and by Karen Mapusua, Director of the Land Resources Division of The Pacific Community (SPC). Both speakers emphasized crop diversity's fundamental role in supporting our food systems, pointing out how genebanks are engines of adaptation rather than static museums. The second session, Non-ODA/Research Funding Sources for Crop Diversity, explored alternative funding methods for crop diversity conservation and outlined the costs of missing funding. Andy Jarvis, Director of Future of Food at the Bezos Earth Fund Anna Backhaus, Cereals Prebreeder at the International Center for Agricultural Research in the Dry Areas, reminded the audience of the need for research bodies to support the genebanks that enable their work and encouraged further exploration of funding in this space. The sessions were helpful to kickstart dialogue on this important topic and should be followed up with a second set of roundtables in the coming year.	and its ability to grow more food using fewer resources. The FAST Partnership is continuing its efforts to identify further resources and climate funding opportunities to empower farmers and rural communities. Together with board members the FAST secretariat explores ways to support the COP29 presidency initiative Harmoniya, clarifying the landscape of initiatives related to climate finance for agrifood systems, seeking to address the gap between Multilateral Development Banks (MDBs) and national agricultural Public Development Banks (PDBs), and empowering farmers, in particular women and youth, to build climate-resilient agricultural communities.	
A2 Test, develop evidence, and share learning on policy and implementation. There should be a focus on the facilitation of faster uptake of proven technologies and approaches to support climate	**2.1** Since October 2023, there have been four Global Agriculture Policy Dialogue events co-convened by the World Bank Group and the UK Foreign, Commonwealth and Development Office (FCDO). These events include the (i) 'The Ministerial' in Berlin on the sidelines of the Global Forum for Food and Agriculture (GFFA) in January; (ii) a technical regional Policy Dialogue event in Dar es Salaam; (iii) a virtual technical regional Policy Dialogue events (including	Going forward, the Policy Dialogue events should dedicate more time to each of the technical meetings and ensure consistency in the participants at a senior technical level from one meeting to another. Countries should support the Global Methane Pledge through increasing investment in, and	Good progress

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adaptation and improve sustainability.	participants from 11 countries, encompassing both the Global North and South); (iv) the East Asia Regional Meeting of the Agriculture Policy Dialogue for Senior Technical Positions in Singapore in June 2024, in which seven East Asia countries participated; (v) the Policy Pathways Workshop for Senior Technical Officials of the Global Agriculture Policy Dialogue, in Rwanda and (vi) a Policy Dialogue as part of the FAO Committee of Agriculture Meetings (COAG) in Rome in September 2024. All these meetings involved the sharing of emerging good practices for repurposing existing agriculture policies and support. **2.2** For the East Asia Regional Meeting of the Agriculture Policy Dialogue for Senior Technical Positions in Singapore in June 2024, both technology and policy on low-emission rice was featured. The Rwanda-based Policy Pathways Workshop for Senior Technical Officials of the Global Agriculture Policy Dialogue hosted technology discussion around fertilizer and soil health, with the participation of CGIAR scientists, among others. **2.3** The Good Food Institute hosted the "Forging a Global Protein Future: Best practices in public funding of alternative proteins" dialogue in May 2024 under the Agriculture Breakthrough initiative, and will host the second dialogue in the series in October, focused on sharing best practices in policies and regulations to support the alternative protein industry. **2.4** No update available	deployment of, technologies to increase agricultural productivity, reduce food loss and waste, and reduce methane emissions from livestock and rice production. The United Nations Environment Programme (UNEP) Climate & Clean Air Coalition (CCAC) applications are open for projects to advance national policy and mitigation actions in the spring every year.	
A3 Advance discussions with the aim of developing common principles and	**3.1** The FAO Agriculture Ecosystem-based Solutions Expert Working Group developed a Tool and Guidelines for Monitoring and Evaluating Agriculture Ecosystem-based	Finalize the FAO Agriculture Ecosystem-based Solutions Expert Working Group guidelines; promote	Good progress

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criteria for metrics and indicators to track the adoption and impact of key sustainable agriculture solutions.	Solutions in Integrated Water Management Projects, which will be developed into an FAO e-learning course finalized in 2025. The draft guidelines document was shared with the Expert Working Group members for review on August 1, 2024. The assessment tool will be introduced at the 2024 Stockholm World Water Week and will be available to download and use from the FAO Land and Water Division webpage. **3.2** The Global Research Alliance on Agricultural Greenhouse Gases (GRA)'s Inventories and NDC Network launched a new website to increase the sharing of knowledge, news, events and training programs and to support the development of collaborative projects and training on improving the accuracy and transparency of greenhouse gas emissions reporting and potential emissions reductions from mitigation actions. Launch of the GRA Agricultural Inventory Training Programme (GRAIT) streamlines current agricultural inventory capacity building initiatives that support the Enhanced Transparency Framework (ETF) of the Paris Agreement. It achieves this through the GRA's collaborative ethos across its network of member countries, partner organizations, scientists and policy personnel. It is a coordination initiative that aims to accelerate the development of robust agricultural inventory systems in developing countries. Funding organizations and countries, as well as recipient countries, are encouraged to participate by sharing information of historic, current and future work in this area through the GRA's Inventory and NDC Network website international collaborations page as well as	awareness and uptake of these guidelines; develop guidelines for projects pertaining to aspects other than water management. The tool and guidelines will be developed into an FAO e-learning course (consisting of several modules and complete with a certification system) and will be available to a global network FAO partners institutions, universities and more than one million learners worldwide through the FAO e-learning Academy.	

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	becoming a member of the Network and posting requests for support or collaborators for new projects, on the Networks newsboard webpage. Of the capacity building work carried out globally in support of the GRA, two agricultural inventory improvement training workshops have been held in 2024 in Fiji, with a third scheduled for Samoa in September. Inventory training has also occurred in Africa and ASEAN, and is being developed in Latin America and the Caribbean. **3.3** No update available		
A4 Deliver an increase in agriculture RD&D to support scaling up and greater accessibility of promising technologies and approaches across the entire food chain to support climate adaptation and improve sustainability. There should be a particular focus on innovations that can reduce emissions from livestock and fertilizers, and advance uptake of digital services by farmers, especially smallholders.	**4.1** The Global Research Alliance on Agricultural Greenhouse Gases (GRA) has contributed to activities of the Enteric Fermentation R&D Accelerator Innovation Sprint, including coordinating a project on animal health also involving the Environmental Defense Fund, US AID and the Global Dairy Platform. The GRA Flagship Project Rumen Gateway is supported by the Global Methane Hub (GMH) and GRA projects have also contributed to the Feed Ration Formulation Tool under development. The Enteric Fermentation R&D Accelerator (the Accelerator) was launched by the GMH and partners at COP28 in December 2023. Since then, there has been a process of developing a research strategy to guide investments in public-good R&D to accelerate progress in the development of solutions to address enteric methane globally. The development of the research strategy has encompassed a multitude of online and in-person convenings with experts in fields including genetics, biochemistry, microbiology, immunology, measurement and nutrition. In addition, members of the Science Oversight Committee of the Accelerator and GMH staff have participated in relevant scientific conferences and	To date, the Enteric Fermentation R&D Accelerator has benefited from strong financial support from philanthropy. Going forward, the GMH needs additional funding commitments from governments and the private sector to ensure that they have the scale of funding necessary to fully implement the research strategy.	

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	events to assess the state of science and understand the extent of current activity. The research strategy is now published and can be found here. Already, the Accelerator has made progress in some of the priority research areas identified in the strategy, including funding the development of low-cost methane measurement, microbiome characterization, low-methane genetics, and vaccines. It is hoped that the strategy will also help guide the research investments of others wishing to contribute to this effort. **4.2** The GRA Flagship Project Feed Additives to Reduce Methane has completed an analysis on legislation frameworks developed in different regions of the world specific for the registration of anti-methanogenic feed additives (Australia, Canada, the European Union, New Zealand, South Korea, the United Kingdom, and the United States of America as illustrative examples of relevant jurisdictions). Researchers from 20 countries are involved in the flagship. The GRA Flagship Project Rumen Gateway has received funding from the Global Methane Hub (GMH). The project now links 13 partners globally to develop methodologies to culture rumen microorganisms. Activities of this work include identifying mechanisms to reduce the production of methane. **4.3** The Crop Trust organizes monthly teleconferences in English, Spanish and French for the Community of Practice on Data Management (CoP-DM). In the first half of 2024, the community consisted of 150 staff from international and national genebanks. In March 2024, a regional workshop was organized on data management for genebanks in New Delhi		

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	with support from the Indian Agricultural Research Institute and the India country office of the Alliance of Bioversity/CIAT. Representatives from 13 genebanks in 11 countries (Bhutan, Laos, Morocco, Vietnam, 2xBangladesh, ICRISAT, IRRI, WorldVeg, Australia, New Zealand and India) attended the training. The next workshop is planned in Colombia in November, with assistance from Agrosavia. The Crop Trust continues to support the development of Genesys as a fundamental component of an effective global genebank system. The Crop Trust works continuously with data providers to help them share up-to-date information about their collections and actively promotes and encourages genebanks to publish data in Genesys. In 2024, one new agreement to publish data was established, and another two were initiated, with Cogent and nd Instituto de Ciencia y Tecnología Agrícolas Guatemala. To facilitate onboarding of new data providers, the Genesys team organized six presentations in the first half of 2024, consisting of four webinars open to all partners, one webinar focused only on the BOLD Project partners, and one presentation during the CoP-DM. Three webinars on uploading trait data were organized in February and were attended by 56 genebank staff from 40 institutes. The two webinars on uploading passport data in April were attended by over 32 genebank staff. In the CoP-DM sessions of June, the Crop Trust presented Embedded Genesys and made the presentation available on YouTube. In 2024, Crop Trust further improved Genesys with: better tools for genebanks to upload, document, validate, and publish trait data and make such data searchable; an updated Subsetting Tool (by the Alliance Bioversity-CIAT); and a new version of Embedded Genesys. In		

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	the first half of 2024, more than 1.2 million accession records have been refreshed and an additional 46,964 accessions have been added to Genesys. The additions come from 27 national genebanks located in 20 different countries. During the reporting period, partners have added 25 trait datasets in a searchable format. **4.4** CGIAR convened a stakeholder meeting in Washington, DC, on May 28, as part of the ICTforAg 2024 conference sessions. The session, "Localizing Artificial Intelligence for Agriculture and Food Systems," was participated by 103 in-person and 180 online. There were three sub-sessions as the following: Keynote presentation: "What does 'responsible AI' mean?"; Panel discussion 1: "Bridging innovation and regulation"; Panel discussion 2: "Can AI make (more) money for farmers?" Highlights of the discussion were scheduled for presentation at the CGIAR Science Week in July 2024, yet this was postponed to April 2025. **4.5** No update available **4.6** No update available **4.7** No update available		
A5 Begin strategic dialogues on how to ensure international trade facilitates the transition to sustainable and resilient agricultural systems. There should be a focus on aligning standards, labels and regulations with a particular focus on: alternative	**5.1** Countries engaged with the Trade and Environmental Sustainability Structured Discussions (TESSD) to discuss potential positive and negative environmental effects of subsidies as well as related trade impacts, focusing on agricultural subsidies and subsidies related to the transition to a low-carbon economy.	Going forward, the 76 countries that are Members of the TESSD will address further types of subsidies and focus on identifying best practices and recommendations on how to enhance transparency. More could be done to discuss how the World Trade Organization (WTO) can promote and facilitate trade in agricultural technologies that are needed to meet	Some progress made

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proteins, low-emission fertilizers, products from agroecological and other sustainable innovative approaches and resilient crop varieties. There should also be discussions on the pricing of agriculture emissions.		international climate and environmental objectives.	
A6 Landscape coordination. Enhance the coordination and transparency of international collaboration on climate-resilient, sustainable agriculture.	**6.1** See section 3 of this report, and specifically Figure 2, for an assessment of international cooperation on climate-resilient, sustainable agriculture. Update from New Zealand: During 2024 New Zealand has participated in the following international dialogues and mechanisms to make climate-resilient, sustainable agriculture the most attractive and widely adopted option by farmers everywhere by 2030: (i) Engaged bilaterally and via the OECD Food Chain Analysis Network on New Zealand's approach to developing its standardized methodology for measuring on-farm GHG emissions. (ii) Funded the FAO Global Livestock Environmental Assessment Model extension to model emissions embedded in traded livestock products. (iii) Held two side events at relevant Codex Committees on the importance of food safety standards for environmental inhibitors to facilitate trade of products produced using this technology.	New Zealand believes more emphasis needs to be placed on countries repurposing their agricultural subsidies toward climate-smart R&D, aligned with previous Agriculture Breakthrough Priority Actions.	Some progress made