

It is increasingly important for agriculture programmes to address climate change

Climate change and environmental degradation pose significant threats to the future of food and agriculture, with consequences for productivity and yields, food system sustainability, food security and resource scarcity. Smallholder farmers in developing economies are amongst the most vulnerable to the impacts of climate change. They are at increasing risk to loss of life, livelihoods, incomes, and rising competition over resources and related disputes and conflict. In response to these threats, it is imperative that the resilience and adaptive capacity of both smallholders and agribusinesses be addressed. At the same time, the agri-food sector represents 31% of global anthropogenic greenhouse gas emissions.¹ Land use change for agricultural expansion and agricultural waste (e.g., land, air and water pollution) are major drivers of environmental degradation, including from forest and biodiversity loss.² Therefore, where possible mitigation opportunities must be explored and promoted to reduce emissions and minimise negative impacts. Considering the interconnected nature of agriculture and climate change, the UK government accepted [ICAI's recommendation](#) to ensure that all agriculture programmes and investments have an integral focus on climate change and the environment (CCE).³

In line with the ICAI recommendation, agriculture programmes must consider how their programming can deliver meaningful impact on CCE across adaptation, resilience and mitigation. This can be particularly challenging for programmes where the primary targets are on smallholder farmer reach and income generation (or broader economic development goals). Climate change is often framed as a crosscutting issue that is not formally accounted for in programme reporting. It is therefore valuable to capture and share learnings on how agriculture programmes can be adapted to centralise climate as a core programme objective.

Key recommendations for agriculture programmes to address climate change

- Include specific targets and KPIs to deliver on climate to ensure allocation of resources, and thus action, and meaningful data collection for evidence and learning.
- Embed climate risk assessments into decision-making processes to systematically identify opportunities and mitigate climate-related risks.
- Assign resources to engage in-country climate experts in intervention design and evaluation to capture context-specific knowledge and resources.
- Align climate-related targets and indicators to the national climate change commitments laid out in countries' National Adaptation Plans, Nationally Determined Contributions and local climate development nexus policies on agriculture.

Since 2019, the UK Foreign, Commonwealth and Development Office's (FCDO) [Commercial Agriculture for Smallholders and Agribusiness \(CASA\) Programme](#) has partnered with agribusinesses and investors (Development Finance Institutions (DFIs) and commercial), providing agribusinesses with technical assistance to improve the inclusivity of business models, leverage investment, and improve the income and climate resilience of smallholder farmer suppliers. CASA demonstrates the business case for investment in climate-resilient agri-food systems with smallholder supply chains.

CASA became 100% funded through UK International Climate Finance (ICF) in 2022. With ICF funding, climate became a core programme goal, necessitating a fundamental change to the way CASA operates and functions. The CASA learning paper [Adapting Agriculture Programmes to Address Climate Change](#) details how this change was delivered, providing recommendations for other programmes to do the same.

1. [Tubiello et al. \(2022\) Pre- and post-production processes increasingly dominate greenhouse gas emissions from agri-food systems. Earth System Science Data 14\(4\).](#)

2. [IPBES \(2019\) Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES Secretariat, Bonn, Germany. https://doi.org/10.5281/zenodo.3831673](#)

3. [ICAI \(2023\). UK Aid to Agriculture in a Time of Climate Change: A Review.](#)

Business as usual: Climate as cross-cutting, not core, objective

A lack of formal indicators on climate can lead to drift in implementation: Prior to being 100% ICF funded, CASA undertook several climate-related programming initiatives, including the production of research and evidence papers and the development of project design tools to encourage the consideration of climate change opportunities and challenges when designing interventions with agribusinesses. Whilst it is positive that these activities took place, they often lacked rigour as climate was not a priority during CASA intervention design. Instead, project design and implementation focussed on key logframe targets to increase smallholder farmer incomes and other crosscutting issues such as food and nutrition security.⁴ Whilst the full paper documents several instances of CASA engaging in climate resilience, adaptation and some mitigation activities, these were often ad-hoc rather than strategic. Consequently, opportunities were missed and, due to a lack of rigorous climate analysis, there was a possibility for maladaptation to have occurred (though no instances were identified in the review process).

Adapting programme processes to ensure a core focus on climate

The limitations of CASA's pre-2023 climate work, highlighted by FCDO in the 2022 and 2023 Annual Reviews, have informed a systematic response across the programme. Significant changes have been made to strengthen CASA's approach to climate, making it more coordinated and consistent going forward.

Including climate in the logframe to keep the programme accountable and encourage learning: Given CASA's ICF funding and the need for urgent climate action in the agriculture sector, CASA's logframe and MEL plan were updated in January 2024 to further integrate four ICF Key Performance Indicators (KPIs), including KPI 1: people supported to better adapt to the effects of climate change; KPI 4: people whose resilience has been improved as a result of the programme; KPI 11: public finance mobilised for climate change purposes; and KPI 12: private finance mobilised for climate change

purposes. The inclusion of these KPIs allows CASA to monitor the number and proportion of smallholders supported to adapt to climate change as part of project interventions, with 40,000 smallholders supported in 2023/24 alone. CASA also captures the proportion of smallholders who continue to demonstrate good production practices, monitoring sustainability of interventions. CASA will also calculate the improved climate resilience of smallholders as an overall impact objective in accordance with the ICF methodological guidelines. These changes to the logframe will be supported by increasing the granularity of data disaggregation to show impact on different groups, and refinement of baseline and outcome assessments at the project level to better capture CASA's impact on climate.

Climate audits and strategies to guide programme shifts to climate as a core objective: For CASA's market systems component,⁵ which works in four implementation countries, national-level audits were commissioned to highlight achievements and missed opportunities, including interventions with partners that did not look to explicitly assess and address the risk that climate impacts may pose for smallholder production. Despite the missed opportunities, the audits also highlighted instances of positive climate outcomes, for example with one aquaculture partner in Malawi, smallholders were encouraged to plant fruit trees, bananas, and vegetables around their fishponds, providing an additional source of food and income as well as improving the resilience of pond walls to damage caused by heavy rainfall and floods. However, such instances of positive climate work were not adequately captured by the CASA monitoring, evaluation and learning framework, meaning the extent of their impact and how they might have been improved has not been quantified.

The audit findings informed the programme-level climate strategy, which is designed to help teams integrate thinking on climate adaptation, resilience, and mitigation where possible, into the design of all new interventions and provides a baseline for assessing and monitoring programme activities against FCDO ICF KPIs. Importantly, this central climate strategy remains flexible to national policy contexts, including, to support alignment with National Adaptation Plans and Nationally Determined Contributions where possible.

4. A focus on food and nutrition security was an elevated policy priority due to the global food crisis following Russia's invasion of Ukraine.

5. CASA's Market Systems Development component works with agri-SMEs in four implementation countries (Ethiopia, Malawi, Nepal and Rwanda). CASA's Technical Assistance Facility (TAF) component works with larger agribusinesses in Development Finance Institutions' (DFI) pipelines to highlight the efficacy of investing in inclusive business models. CASA TAF is implemented across several countries in Africa and Asia based on the location of DFI investees.

Improved climate diagnostic tools to promote rigorous consideration of climate in project design: To enable CASA implementation teams to meaningfully integrate climate into intervention design, new diagnostic tools were introduced to be used with partner agribusinesses. The tool introduced for the market systems development component contains four sections for implementation teams and partners to address at the project design phase: (1) A short climate risk assessment, including reflections on ICF KPIs 1, 4 and 12; (2) An environmental checklist for the partner which includes an analysis of risks and agreed mitigation measures; (3) A sustainability assessment to determine how the intervention will embed CCE action within the partner agribusiness; (4) A space for qualitative conclusions and actions. The tool, to be further refined in 2024, supports a consistent and rigorous consideration of climate risks and opportunities in CASA's work with each partner agribusiness. CASA TAF takes a slightly different approach, deploying a nested suite of four climate diagnostic tools: (1) A macro country-level climate risk assessment; (2) A value chain risk assessment of the risk to relevant crop yields given regional temperature projections; (3) An agribusiness opportunity assessment highlights the risks and opportunity associated with a particular partner's business model; and (4) Focused technical assistance supports the partner to undertake detailed review of productivity, mitigation and adaptation to ultimately design the intervention.

Integrating smallholder perspectives on climate challenges requires dedicated resources: It is imperative that climate action targeting adaptation and resilience of smallholder farmers is built upon an understanding of their lived experiences. This is particularly challenging for programmes working through agribusiness partners to design and implement interventions as there are typically relatively few interactions with smallholders at the design phase. Shifting to climate as a primary objective therefore requires a process of consultation with smallholder farmers on how the programme can best address their climate challenges. To date, this consultation has not happened on CASA and work is ongoing to determine the most effective way of integrating this into CASA's programming.

Recommendations for future programming

Based on the assessment of CASA's climate trajectory, the learning paper identifies seven areas of recommendations for how CASA can further consolidate its progress to date (see table). These areas, which are likely applicable to other agricultural programmes, are logframe and reporting integration, climate-sensitive agribusiness selection, climate-related capacity assessments, climate finance streamlining and reporting, adaptation technology adoption, external stakeholder engagement, climate policy advocacy and communication, and coordination across programmes.

A second climate learning paper in the programme's final year (2025/26) will explore the resulting impact on CASA's outputs and outcomes as a result of these adjustments.



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Area	Proposed actions for agriculture programmes looking to focus on climate change
Logframe and Reporting Integration	<ul style="list-style-type: none"> • Ensure climate change is a core programme objective by providing specific KPIs within the logframe that mandate adaptation, resilience and/or mitigation activities. • Frame well-defined and measurable climate outcome indicators at both programme and disaggregated country and project levels, promoting active monitoring and collaboration among CASA country teams and partner agribusinesses.
Climate-Sensitive Agribusiness Selection	<ul style="list-style-type: none"> • Develop a systematic process for selection of partners that demonstrates a strong commitment to climate change adaptation, and mitigation where possible. • Consider how each agribusiness's efforts contribute to building climate resilience and reducing vulnerability for smallholder farmers and how these can be supported. • Emphasise the positive correlation between climate resilience of smallholders and agribusiness sustainability, ensuring climate adaptation responses are integral from the outset rather than added as an afterthought in business model design. • Utilise climate risk assessments and cost benefit analyses during the pre-intervention evaluation of climate vulnerabilities and opportunities associated with each investment.
Climate-Related Capacity Assessments	<ul style="list-style-type: none"> • Conduct capacity needs and baseline assessments with smallholder farmers and other relevant stakeholders to identify their specific needs for climate adaptation as a prerequisite to designing any programmatic intervention. • Provide tailored support to enhance smallholders' adaptation to climate change, emphasising long-term sustainability. • Build the capacity of programme staff, partners, and project beneficiaries in climate change adaptation and mitigation practices so they are well-equipped to understand and respond.
Climate Finance Streamlining and Reporting	<ul style="list-style-type: none"> • Explore ways to integrate blended climate finance mechanisms into CASA's investor mix. • Seek out climate-focused financing entities and explore opportunities for blending climate finance with commercial investment to promote climate-resilient agriculture practices. • Establish a robust reporting mechanism specifically for climate finance components through budget-tagging⁶. Clearly track and report the allocation and use of climate-related funding and how it contributes to achieving climate adaptation goals within the programme.
Adaptation Technology Adoption	<ul style="list-style-type: none"> • Work with agribusinesses and smallholders to promote the uptake and adaptation of context-appropriate climate-resilient and climate-smart practices, technologies and knowledges that are in alignment with their processes and priorities. • Facilitate partnerships with technology providers and promote the diffusion of innovations that enhance resilience to climate change.
External Stakeholder Engagement	<ul style="list-style-type: none"> • Engage investors, governments, donors, and agribusinesses in discussions about the importance of mainstreaming climate change in agribusiness investments through targeted events and publications for sharing of knowledge and experience. • Advocate at policy, investor, and agribusiness level that climate resilience is a fundamental part of ensuring the long-term viability of the agribusinesses. • Ensure that climate experts are engaged as partners throughout the project design and implementation so that opportunities are taken and risks are mitigated.
Climate Policy Advocacy and Communication	<ul style="list-style-type: none"> • Seek alignment, where possible, with the latest NAPs and NDCs submitted in 2020⁷ in intervention countries to align work with the national government's plans on agriculture and food security. • Use data and evidence to communicate and engage in meaningful dialogues about climate challenges with partners, smallholders and investors, so as to sensitise, raise awareness and generate ideas on responses.
Coordination across Programmes	<ul style="list-style-type: none"> • Share learning within and between programmes to ensure the promotion of best practices. • Maintain a repository of internal knowledge management products, strategy documents, and audits both within and between programmes, to retain institutional memory and inform future interventions.

6. [World Bank. 2021. Climate Change Budget Tagging: A Review of International Experience. Equitable Growth, Finance and Institutions Insight - Governance. World Bank, Washington, DC.](#)

7. [NDC Registry](#)