

**BIG BET ON CLIMATE CHANGE
ADAPTATION**
PROGRAMME DESIGN NOTE



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Introduction

Climate change is undermining progress on poverty reduction, gender equality, and food security—especially for women smallholder farmers, who are central to agricultural production¹ in low-income countries. For far too long, however, efforts to adapt to the impacts of climate change have been piecemeal, fragmented, and incremental. Climate change adaptation is often viewed as a local challenge. It may also be viewed as a “tomorrow problem” that is not as urgent as other, more pressing priorities. Rarely have “big bets” or “moonshots” been made with the view of helping people, particularly women, lift themselves out of climate vulnerability to make a transformative impact on poverty reduction, gender equality, and food security in a changing climate.

In April 2025, the government of Denmark and BRAC co-hosted a roundtable discussion with the governments of Bangladesh, Liberia, Tanzania, and Uganda and other partners, including foundations and research institutions, to make a big bet on climate change adaptation. At that roundtable, participants agreed that a focus on climate change adaptation in agriculture and food security is key for economic and human security; adaptation efforts must be locally-led and gender-responsive; and multi-country, multi-stakeholder collaboration is crucial. In discussing next steps, participants asked BRAC to develop a draft programme design note for a big bet on climate change adaptation that builds on pilots and proofs of concepts that have been tested and implemented over the years, while also driving innovation with the view of breaking new ground.

This draft programme design note seeks to respond to that challenge. It is based on an extensive review of evidence and from discussions with smallholder farmers and partners from governments, civil society, private sector, and research institutions. The note lays out how this big bet attempts to build on the existing evidence base and break new ground in at least four ways.

First, it demonstrates how the programme will put women front and centre. The programme will seek to identify and promote investments in agriculture that are not only fit for purpose in a changing climate, but are also gender responsive, if not transformative.

Second, the note demonstrates how climate data and information will underpin all aspects of the big bet. Though there have been major advancements in climate data and information over the last decade, adaptation programs are often not informed by such information, raising concerns about their ultimate effectiveness.

Third, the note lays out what an “essential” bundle of gender-sensitive adaptation actions should be in a range of country contexts. It will include activities across the entire agricultural cycle, from pre-production planning through to post-harvest services, noting that too much focus to date has been on only the production stage. The programme will use an innovative approach to assessing the impact of that bundle in reducing climate vulnerability.

Finally, the programme will seek to leverage financial networks and commercially driven products to scale solutions sustainably.

The draft note will continue to be co-created with partners over the next 6-12 months in the spirit of South-South-North partnership. BRAC’s ambition is to mobilise an initial investment of US\$300 million to support nearly two million women smallholder farmers, who we believe, with the right resources, knowledge and capacity, can lift themselves and their families – roughly nine million people – out of climate vulnerability. In the process, we aim to create a game changing adaptation model that can be even further replicated and scaled.

¹ Agriculture throughout this paper refers to crops, livestock, and fisheries.

I. Development Challenge

Climate change is reversing decades of progress in poverty reduction, gender equality, and food security. The World Bank estimates that climate change alone may push between 32 and 132 million people back into extreme poverty by 2030.² This is in large part due to the proportion of people living on low incomes, who work in agriculture, which is highly climate sensitive, and the knock-on effects of low agricultural productivity such as increased food prices and reduced nutrition, that drive poverty and instability. It is women, especially in agricultural contexts, who are the most vulnerable.³

Almost half of the agricultural workforce in low-income countries are women.⁴ In addition, women assume a greater share of household responsibilities including rearing and feeding children and managing household food security and nutrition. If the agricultural livelihoods of women smallholder farmers are not secured as they strive to adapt to climate change, the impacts on wider society will be profound, extending far beyond hunger and malnutrition: we will see rising internal and cross-border migration, destabilised communities, and mounting pressures on already strained humanitarian systems.⁵ The World Food Programme has even linked rising temperatures and its impacts on agriculture to civil conflict in sub-Saharan Africa.⁶

Despite their essential role within small-scale farming, and day-to-day family subsistence, women experience greater difficulty than men accessing and putting to best use assets like land, livestock, and inputs such as seeds, credit, technology, and climate information. Women are also frequently kept out of sales transactions due to prevailing gender discriminatory norms, trapping them in intensive labour arrangements from which they see limited return. As such, women are particularly vulnerable to the impacts of climate change.

Women smallholder farmers and local government extension workers have shared with BRAC their experience with: increased uncertainty with rains, droughts, and flooding; crops that no longer produce the same yields and are burdened by pests; livestock and fisheries that are impacted by increasing heat; and gender norms that increase women's care burdens, limit their access to financial support and market information, and inhibit their ability to make decisions about when to sell, where to sell, and at what price. Despite the availability of some climate information from meteorological departments, there are gaps in dissemination of such information, including seasonal forecasts and in combination with agriculture advisories, and confidence in their reliability remains low. This in turn affects the use

"Over 70% of our people depend on agriculture, and most of it is rain-fed smallholder farming. That means climate change is directly a threat to our economy, food security, and people's lives."

"Women are sowing the seeds, weeding, harvesting, marketing – you name it. If there's no food on the table, it's the woman who is first blamed or who feels the responsibility. Yet women typically have less access to land, credit, and extension services. So they're carrying agriculture on their backs without equal resources. Any adaptation program must address that imbalance. It's not just a gender issue."

Dr. Callist Tindimugaya,
Director, Water Resources
Management, Ministry of
Water and Environment,
Uganda

"We don't have any way of knowing whether it will rain next week. Some of us could listen to the radio, but it is not in our language."

"The men sit and drink tea. Because someone has to feed the kids, the women have to work."

"There is no money to save."

**Members of Bagadee
Women's Cooperative, Lofa,
Liberia**

² [Revised Estimates of the Impact of Climate Change on Extreme Poverty by 2030](#), World Bank, 2020.

³ Intergovernmental Panel on Climate Change (IPCC). (2022). [Climate Change 2022: Impacts, Adaptation and Vulnerability](#). Contribution of Working Group II to the Sixth Assessment Report. Cambridge University Press.

⁴ FAO, IFAD, UNICEF, WFP, and WHO. 2024. [The State of Food Security and Nutrition in the World 2024](#) – Financing to end hunger, food insecurity and malnutrition in all its forms. Rome.

⁵ FAO IFAD IOM WFP. 2018. [The Linkages between Migration, Agriculture, Food Security and Rural Development](#). Rome. 80pp.

⁶ WFP USA, 2017. [Winning the Peace: Hunger and Instability](#). World Food Program USA. Washington, D.C.

FIGURE 1

Vulnerable Moments in Women Smallholder Farmers' Seasonal Calendar

Women make up nearly half the agricultural workforce in low-income countries and play a key role in household food security. Yet, at every stage of the agricultural cycle, they face greater barriers to resources and markets, making them especially vulnerable to climate change and its far-reaching societal impacts.



of the information. Furthermore, farmers also attribute some of their struggle to the overuse of chemical fertilisers and pesticides, and the destruction of wetlands and watersheds, which have contributed to deteriorating soil health and declining agricultural productivity.

Adaptation can increase food security and nutrition, and women's social and economic empowerment. Yet the way in which adaptation is currently implemented across countries and development sectors is not sufficient in protecting and promoting development and gender equity gains in the face of a changing climate. Concern is mounting among developing country governments, for whom agriculture is a key pillar of the economy and major source of jobs. Virtually all climate change adaptation frameworks, including National Adaptation Plans and Nationally Determined Contributions, cite agriculture as one of the most climate sensitive sectors in need of support. Governments are putting enabling policies in place and are striving to strengthen how their systems deliver, through an ecosystem approach that engages and leverages local partners.

The world urgently needs a bold, systemic solution that is centered on women smallholder farmers—recognising their power as food producers, economic agents, and climate stewards. Failing to invest in them not only deepens food insecurity and stifles development, but also undermines community resilience, stability, and long-term security. In climate-vulnerable regions, neglecting women farmers invites avoidable humanitarian crises and economic losses. But when women have equitable access to finance, land, and markets, they drive recovery, strengthen local economies, and build the foundations for lasting peace and prosperity.

"Building capacity at the community level is a continuous task. We want to involve local people, especially women and youth, in planning and implementing adaptation, but that means training and supporting local institutions. We are doing this, but we must do more."

**Md. Dharitri, Joint Secretary,
Ministry of Environment,
Forests and Climate Change,
Bangladesh**

II. Theory of Change

Goal

Our vision is to enable nearly two million women smallholder farmers in South Asia and sub-Saharan Africa to lift themselves and their families—roughly nine million people in total—out of climate vulnerability by 2030. See Annex 1 for the Theory of Change.



Outcomes

To realise this vision, we will work with women smallholder farmers, governments, the private sector, researchers, and other local actors, to achieve three outcomes:

1. Increased Household Food Security and Improved Nutrition

The big bet will enable women smallholder farmers to not only reduce their vulnerability to climate shocks and stresses today, but to also consider what agricultural products are viable and/or may become “opportunity” products in a changing climate.

At the start of the big bet, together with partners, we will undertake analyses in each country of crops, livestock, and fish that a) are suited and accessible to women; b) are climate-resilient; c) have nutritional value; and d) have inclusive market potential. We will share this analysis with women smallholder farmers groups (see next section on delivery mechanisms), and work with them to select 3-5 targeted agricultural products, as appropriate in each climatic and agricultural zone within each country. The programme will provide specific, targeted support for these select products, while also encouraging and supporting overall agricultural and livelihood diversification. Some of the targeted

agricultural products will help meet household food security and nutritional needs, some will increase incomes, and some will serve both objectives.

The big bet will strengthen the production of more diverse foods—grains, roots, vegetables, eggs, milk, and meat—while increasing income for other essential food and nutritional needs. Livestock are a strong complement to crop-based agriculture—providing a buffer in bad seasons, helping women smooth consumption and protect nutrition during climate shocks; and facing fewer gender-restrictive decision-making norms. Beyond boosting household nutrition and food consumption, the programme will also employ a market-focused approach. By linking agricultural production to value chain opportunities and markets, women will be empowered to move from subsistence to surplus and sale, generating income to reinvest in their activities—building longer-term food and income security.

2. Sustained or Improved Ecosystem Health

BRAC and partners will seek to sustain or improve ecosystem health at household, community and landscape levels. The programme will promote agricultural products and practices that lower water usage, increase efficiency in nutrient use (e.g., minimal fertilizer to support yield growth), and contribute to soil health. We will improve knowledge, strengthen capacity and increase access to inputs and practices that are climate smart, including regenerative agriculture methods. The big bet will also seek to use nature-based solutions and improve forest and watershed management.

3. Increased Women's Social and Economic Empowerment

Women are at the centre of the big bet, recognising not just the critical roles they play in the agricultural workforce and their disproportionate vulnerability—but also their ingenuity and drive. Among male and female farmers with whom BRAC has met, women farmers expressed being more likely to trust scientific advice, adopt new crops, methods or practices, and collaborate. Evidence also suggests that when women have equal access to information and resources ‘their likelihood of adopting improved agricultural practices can match or exceed that of men.’⁷

The big bet will promote collaborative approaches between men and women to address inequalities and exclusion and create more respectful and inclusive gender relations. Each component of the programme will apply a gender equality and social inclusion lens, ensuring that beyond selecting women as participants, we will examine and confront structures, processes and relationships of power and intersectionality that contribute to women's climate vulnerability.⁸

Five Integrated Components

The evidence base⁹ suggests that current adaptation solutions are piecemeal and fragmented. For example, research shows that climate information and financial services are critical in changing farmers' risk tolerance and investment decisions. However, even when combined, they are not sufficient to improve incomes or profits in the face of a changing climate. The evidence also emphasises that small-scale farmers often invest more in their farm, have higher yields, trade more easily, and increase their incomes when they have greater agency in and are given stronger access to markets through storage facilities, securing buyers before planting, and price information. The literature further highlights a critical need to implement and test a ‘bundle’ of interventions,¹⁰ which

⁷ Behrman, J.A., Meinzen-Dick, R., Quisumbing, A.R. (2014). Understanding Gender and Culture in Agriculture: The Role of Qualitative and Quantitative Approaches.

⁸ Climate Change 2022: Impacts, Adaptation and Vulnerability. Working Group II Contribution to the IPCC Sixth Assessment Report, *Climate Resilient Pathways*, p. 2700.

⁹ The Abdul Latif Jameel Poverty Action Lab (J-PAL), at the Massachusetts Institute of Technology, a long-time partner of BRAC, reviewed the evidence base to help inform the design of this programme.

¹⁰ Abdul Latif Jameel Poverty Action Lab (J-PAL). 2024. [‘Building farmers’ resilience to climate change.’](#) J-PAL Policy Insights. Last modified September 2024.

include access to climate information, farm-based livelihoods support, financial services, and market linkages. These make up four of the five key components of this program and line up with what BRAC is hearing directly from women smallholder farmers. Among the multiple and context-specific challenges that women farmers voiced, we observe a clear pattern of constraints that point to a model with the potential to increase the adaptive capacity of women smallholder farmers in multiple geographies.

Therefore, to achieve the vision and three intended outcomes of this big bet, the programme will consist of five key, integrated and mutually reinforcing components. Among the women engaged in crop-based agriculture, for example, the programme will address each major stage—from pre-production planning through climate information services and production with resilient inputs and advisory support, to post-harvest market services—while simultaneously providing essential financial literacy and services. It will give special attention to post-production services, noting that even when women succeed in increasing production, they face significant barriers to selling their produce, accessing fair prices, value chain opportunities, and as a result miss out on opportunities to increase their incomes despite increased production. We will develop partnerships with local partners, including women's cooperatives; identify off-takers, including through contractual arrangements with local private or public sector partners; and strengthen the capacity of women smallholder farmers to negotiate with off-takers. The five components are mutually reinforcing; they will not be delivered in silos or as separate components.



The five components are:

1. **Climate information and risk management services:** Critical to inform agricultural product selection and women's decision-making across the seasonal calendar, this includes short-term weather forecasts as well as seasonal forecasts and tailored agricultural advisories, which help farmers understand what and when to plant and how to effectively care for livestock and fisheries. BRAC has already been and will continue to engage government partners to access

climate forecasts, facilitate climate scenario planning connecting government systems to farmers, and strengthen the capacity of women smallholder farmers to access, interpret, and act on climate and weather information. Other users of climate and weather information include off-takers, input-suppliers, and microfinance operations.

FIGURE 4

A Better Way

Access to climate and weather information can significantly shape the outcomes of women smallholder farmers. When women receive timely forecasts and tailored agricultural advisories, they can make informed decisions about what and when to plant, leading to healthier crops, larger harvests, and increased income. In contrast, without access to this information, women may plant at the wrong time, face crop failure, take on debt, and see their income decline. Climate information and risk management services are essential for crops, livestock, and fisheries to improve agricultural decision-making and build resilience.



2. **Production services:** Training on and access to climate-resilient agricultural technologies, inputs, and practices, including regenerative agriculture, that will not only increase food security and nutrition but also lower water usage; efficiency in nutrient use (e.g., minimal fertiliser to support yield growth) and contributes to soil health; establishment of new or links to existing producer cooperatives; and facilitating labour-saving solutions.¹¹
3. **Financial services:** Access to formal loans; participation in village savings and loan associations; and savings for agricultural investments, insurance, contingent lines of credit, etc.¹² to address near- and longer-term climate change adaptation needs of women smallholder farmers; product innovation and de-risking support to catalyse the uptake of financial services and products that enable climate change adaptation; building demand-side capacity through financial literacy; and targeted outreach to ensure that women smallholder farmers not only access but also understand and can effectively use climate finance tools.
4. **Post-harvest services:** Training and access to community storage solutions, small-scale processing, and new markets; strengthening capacity of women's groups or cooperatives to identify and negotiate with contract buyers or institutional procurement arrangements, e.g. private sector off-takers or government offtake for school feeding programmes; strengthening access to price information; organising seed fairs; and market linkage meetings.

¹¹ In Liberia women shared the biggest constraint is the cost of labour. By employing the 'kuu' system members of the group take turns to work on one farm at a time, as a group, for three to four hours.

¹² Crop insurance may not be viable or affordable for our target segments in all markets.

5. **Strengthening enabling environment:** Working with governments, private sector, academic and research organisations, and other civil society actors to strengthen the broader systems that support women smallholder farmers. This includes building upon ongoing work with meteorological agencies to improve climate information services, co-creating or updating agricultural extension curricula, coordinating among national climate outlook forums, Ministries of Women and Gender exploring gender-equitable policies, and working with agricultural research institutions and social enterprises to develop and/or disseminate climate resilient inputs.

"Even well-intended development efforts can be derailed if we don't climate-proof them... we've identified some major gaps. One is lack of access to useful climate information for farmers. In Liberia, rural communities have very limited information about weather forecasts, seasonal outlooks, or techniques to cope with the changes."

Dr Emmanuel Yarkpawolo,
CEO Environmental
Protection Agency, Liberia

Across the five, integrated and mutually reinforcing components, the programme will utilise innovative technologies, including in the dissemination of information, such as climate and weather information, agricultural advisories, and market information, while also ensuring that these technologies are accessible and affordable to women smallholder farmers. The programme will blend cutting edge climate science and technology with community-based frugal innovation.

III. Geographies and Reach

The selected countries—Bangladesh, Liberia, Uganda and Tanzania—are especially vulnerable to the impacts of climate change. The governments of each have signalled commitment to co-creating this big bet with BRAC, building on already strong partnerships of collaboration. Furthermore, in each of the four selected countries, BRAC has the ability to leverage existing BRAC microfinance operations and experience and capacity implementing scaled integrated livelihoods programmes.

Within the four countries, BRAC and government partners will select the most climate-vulnerable areas, informed by a mapping of activities of other local actors. In Bangladesh for example, we will prioritise working in areas severely impacted by sea-level rise and increased salinity in the southwest, and drought-impacted regions in the northwest, where fewer actors are engaged.

Variation across the countries provides an opportunity to generate rich learning from different contexts. Geographies differ according to climate challenges, strength of government systems, and ecological variation. Where programme effectiveness differs across contexts, this will inform which conditions are most conducive to reducing climate vulnerability and where greater attention may be needed.

Over seven years, the big bet will reach nearly two million women¹³ and their families, roughly a total of nine million people. Two thirds will be in Bangladesh, where BRAC has a large footprint enabling wide reach. Year 1 will focus on core foundational activities, including conducting climate vulnerability and capacity assessments (CVCA), market assessments, and gender analyses. We will then take a "cohort-based approach," whereby we start with one cohort of women smallholders and begin testing the approach. The second cohort will be larger than the first, and the

"In my experience, rural women are incredibly resourceful, but they often lack opportunities and tools. Despite being more vulnerable to climate impacts, women are ready to drive solutions. I've seen it on the ground: when women get access to finance or training, they mobilize groups and uplift entire communities. But too often, those opportunities don't reach them."

**Felister Mdemu, Deputy
Permanent Secretary,
Ministry for Community
Development, Gender and
Women, Tanzania**

¹³ Projected direct reach in Bangladesh is 1.25 million; Tanzania 300,000; Uganda 240,000; and Liberia 30,000.

third cohort will be the largest in terms of reach. Each cohort will be part of the programme for three years, supported with activities across the five integrated, mutually reinforcing components through delivery mechanisms as described in the next section. Cohort one will be approximately from years 2, 3, and 4; cohort two for years 3, 4, and 5; and cohort three for years 4, 5, and 6. Year 7 will focus primarily on evaluation, wrap up, and other sustainability-focused objectives.

This cohort-based approach, which has been effective in other impactful BRAC programs, allows for quick iteration and learning from previous cohorts as they are onboarded into the program. As a result of the programme, women involved in this big bet will be able to transform their livelihoods, adopt new climate change adaptation practices over the course of multiple crop cycles, and begin to reap the benefits of the programme.

IV. Approach to Implementation

Contextualising the Overarching Theory of Change

The big bet will follow all aspects of the eight principles for locally-led adaptation¹⁴ from programme development and delivery to partnerships and donor engagement. It aims to set a standard for inclusive and equitable, locally-led adaptation that demonstrates the critical role women can play in enabling our communities to adapt to climate change.

The overarching vision, outcomes, and five integrated components of the programme will be consistent across the four countries. Specific partnerships and activities, however, will vary according to the opportunities in each context. Climate information systems, for example, vary from country to country: The Tanzania Meteorological Authority (TMA) operates a nationwide network of observation stations producing a range of forecasts and advisories including daily, monthly, seasonal, and decadal outlooks. Agro-climatic advisories are disseminated to farmers via agricultural extension officers, radio, TV, and SMS, and, where funded, through Participatory Scenario Planning (PSP) sessions. Here, BRAC would support dissemination into local areas, strengthen verification systems, and assist with tailoring advisories to women.

By contrast, the Liberia Meteorological Service (LMS) operates fewer weather stations, due to damage and disrepair during and since the civil war. Seasonal forecasts are generated using downscaled regional weather data; however these are presently forecasts and tailored agricultural advisories are not disseminated to farmers though efforts are underway to address this. BRAC would work in partnership with the government to identify solutions, including from the private sector, to address gaps in information generation, and assist with information dissemination to women smallholder farmers in the programme. Annex 2 outlines illustrative differences and design considerations according to geographies, and Annex 3 provides an illustrative example of specific activities for each of the five integrated components.

In year 1, prior to rollout with programme participants, BRAC will conduct rigorous, gender-sensitive, climate vulnerability capacity assessments (CVCA) so that design in each country and regional context is tailored to local needs, as informed directly by women smallholder farmers. This will ensure that implementation plans are gender-sensitive and matched to real lived experience and local ecological, social, and economic dynamics. The CVCA process will closely involve women's groups and indigenous organisations – strengthening partnerships that will be critical to the enabling ecosystem while ensuring the programme is locally-led. This process will be complemented by localised market assessments and gender analyses, ensuring the bundle of interventions address

¹⁴ Devolved decision-making, addressing structural inequalities, providing patient and predictable funding, investing in local capabilities, building a robust understanding of climate risk and uncertainty, flexible programming and learning, ensuring transparency and accountability, and collaborative action and investment.

both economic and gender-based inequities. Where robust assessments already exist, including those led by national or local actors, BRAC will build on rather than duplicate efforts.

Delivery Mechanisms

The programme will be delivered through structures designed to operate at different levels—local, national, and sub-national.

Delivery mechanisms at the local level include:

- Women's groups can form a key delivery channel for working with women—including via women's farmer groups, village savings and loan associations (VSLAs), and, where appropriate, women's microfinance groups. Groups are an efficient mechanism for bundled service delivery, including finance, training, and agricultural inputs; enabling better market access through aggregation, shared market information, and joint price negotiation, while also promoting solidarity, peer support, and trust.
- Community-level promoters and livelihood specialists (respected community members engaged by BRAC to deliver the programme) can help ensure climate information is disseminated and being used, and facilitate post-harvest support including aggregation, storage facilities, and market information. They can also support off-take, facilitate collective sales, and make linkages to local private sector buyers, or BRAC Enterprises, including but not limited to BRAC Seeds in Bangladesh and Uganda, and BRAC Dairy in Bangladesh. In some cases, they may facilitate institutional buyers, such as government school feeding programmes. Community-level promoters will be complemented with local Farmer Field Schools, lead farmers, and cooperatives – for women to learn or access further support, where available.

In addition to local-level delivery mechanisms, the big bet will also include national and sub-national delivery mechanisms and partnerships. Progress and sustained impact at the community level depends on whether policies, markets, and public services also support their efforts. The programme will complement household- and community-focused support with engagement at regional and national levels, in line with activities across the value chain. At the national and sub-national levels, delivery mechanisms include participatory scenario planning and climate outlook forums, partnerships between farmers and research institutions, and mechanisms to coordinate market connections. A next step in programme design will be to identify specific partners in each country and identify roles and responsibilities of governments, private sector, academic and research institutions, and other civil society actors in the big bet. This will secure ownership, sustainability, and scaling.

Scale and Cost Effectiveness

BRAC will apply its decades-long learning from implementing bundled livelihood and food security programmes at scale and partnering with governments to ensure that the big bet programme is designed to deliver at scale from the outset. Key to scale and cost-effectiveness will be:

- **Leveraging existing government services, private sector, and others:** Governments already dedicate budget to parts of the enabling ecosystem that are critical for women farmers' resilience – such as meteorological and agricultural extension services. The programme will leverage, strengthen, and/or align existing systems and services that already operate at scale but have gaps in reach and/or impact.
- **Layering on to existing BRAC infrastructure:** BRAC is one of the largest development organisations in each of the big bet countries, with offices nationwide and in remote locations often where other development organisations are not present. We operate microfinance

operations, social development programmes, and social enterprises such as BRAC Seeds and BRAC Dairy—which we will leverage and layer on to, ensuring operational and cost efficiencies. In each of the four countries, BRAC’s microfinance operations are in some of the most remote and underserved areas, and BRAC is equipped to design and deploy agricultural products that are fit for purpose in a changing climate. Furthermore, BRAC microfinance clients are predominantly women. In Bangladesh, BRAC has already started working with the government to disseminate seasonal and shorter-term climate and weather information and agricultural advisories to farmers via our “adaptation clinics,” and BRAC is prepared to continue to scale our commercially driven agriculture products, such as crop and livelihood insurance, sustainably.

- **Integrating market-based and cost-recovery models:** We will integrate market-based models and cost recovery mechanisms. Women smallholder farmers who are eligible for microfinance, for example, will be able to access credit to purchase necessary inputs, such as climate-resilient seeds.¹⁵ This will reduce the costs of operations, relative to providing all women smallholders in the programme with inputs on a fully grant basis. BRAC has used this model in other programmes that operate at scale, being careful to assess which categories of women require support through grant-based asset transfers and which are able to provide partial or full repayment. Furthermore, a significant body of evidence and experience demonstrates the cost-effectiveness of bundled approaches.¹⁶

V. Confidence in the Outcome

Track Record

BRAC has over 50 years of experience partnering with women as agents of change. We have implemented bundled programmes, at scale, with transformative, long-lasting impacts.¹⁷ In Bangladesh, for example, BRAC has directly lifted over two million households out of extreme poverty through the evidence-backed Ultra-Poor Graduation approach, and BRAC International is now working with governments around the world to take up the “essentials” from this approach and apply them in their national programs. BRAC has also applied our experience to develop integrated livelihoods programming for women and girls in seven other countries.¹⁸ BRAC has a decade of experience partnering with governments and leveraging their systems to create the right enabling environment for impactful, scaled, and sustainable women’s livelihood programmes that aim to end extreme poverty, an issue that could be considered as comparably challenging and multifaceted as helping women adapt to climate change.¹⁹

Finally, BRAC has experience partnering with academic and research institutions to inform climate change adaptation policy-making at the national level. In Bangladesh, for example, we are collaborating with the Massachusetts Institute of Technology to produce 30-year climate change projections in southwest Bangladesh, which can be expanded and scaled for greater geographic coverage with the big bet; these projections will inform longer-term decisions about agricultural viability and the next update of the country’s National Adaptation Plan. BRAC’s unique track record

¹⁵ J-PAL, CEGA, and ATAI Policy Briefcase. 2015. “[Resilient Rice](#).” Cambridge, MA: Abdul Latif Jameel Poverty Action Lab, Center for Effective Global Action, and Agricultural Technology Adoption Initiative.

¹⁶ BRAC pioneered the Ultra-Poor Graduation approach, widely recognised as one of the most [cost-effective](#) bundled approaches proven to enable women to lift themselves out of extreme poverty.

¹⁷ Balboni, Clare, Oriana Bandiera, Robin Burgess, and Upaasna Kaul. 2015. ‘*Transforming the Economic Lives of the Ultra-Poor*.’ IGC Growth Brief 004, International Growth Centre, London School of Economics and Political Science.

¹⁸ BRAC International, [Mastercard Foundation Accelerating Impact for Young Women \(AIM\)](#).

¹⁹ World Bank, 2023, Partnership for Economic Inclusion, In Practice, [Designing and Delivering Government-Led Graduation Programs for People in Extreme Poverty](#).

in linking poverty alleviation with scalable, community-driven climate adaptation has been anchored in a South-South-North collaboration approach.

Partnerships for Sustainability and Lasting Impact

The big bet is designed to leave behind durable systems and capabilities that persist beyond the life of the programme. A coalition of partners, including government, private sector, academic and research institutions, and civil society, will work to build an ecosystem where different systems and structures are mutually supportive, promoting long-term resilience at the national and community level. This includes efforts to strengthen public services, e.g. agricultural extension and climate information systems, and improve access to markets, all while embedding delivery within community structures and cooperatives that exist or will endure beyond the programme. It will also strengthen women's capacity to access and use financial services and to interpret and use climate information—resources that will continue to be available after programme exit. Through repeated exposure, trust-building, and targeted training, women will significantly enhance their capabilities. They will be better equipped to save, borrow, and manage risk; gain skills to make timely decisions based on weather and seasonal forecasts; and assert greater control engaging in markets and household dynamics.²⁰ These gains in confidence, capability, and connection to systems are designed to outlast direct programme support—ensuring that resilience is not only achieved, but sustained.

The most important determinant of sustained impacts is government ownership and buy-in. The big bet reflects the needs and priorities of all four governments—Bangladesh, Liberia, Tanzania, and Uganda.²¹ Together a coalition of actors will address not just symptoms, but the root causes of climate vulnerability. The big bet offers a pathway out of climate-driven poverty for millions of women and their families. Its integrated, community-driven, and market-oriented approach will not only increase food security, incomes, and resilience, but reduce the pressures that drive displacement and destabilise communities. As food insecurity, environmental degradation, and gender-based exclusion are increasingly linked to social unrest and conflict, empowering women farmers to adapt is not only a moral and development imperative—it is a strategic investment in regional stability.

VI. Monitoring, Evaluation, and Learning

BRAC is partnered with research firm [Mathematica](#) to develop an approach to climate adaptation monitoring, evaluation, and learning that will enable us to measure whether we are effectively reducing climate vulnerability. This approach tackles a core challenge in climate change adaptation: despite widespread interest, the field still lacks clear, practical ways to assess whether interventions are successfully building resilience. Many organisations rely on resilience capacity indices—composite measures that attempt to quantify households' potential to manage shocks—but these are often complex, difficult to interpret, and show mixed success in predicting whether farmers are truly able to withstand climate change events. In contrast, our approach is straightforward and outcome-based. We will measure whether farmers experienced resilience, as reflected in their ability to sustain key well-being indicators associated with food security and nutrition, ecosystem health, and women's social and economic empowerment in the face of shocks. This allows us to generate rigorous, actionable evidence on what works—something donors and practitioners urgently need.

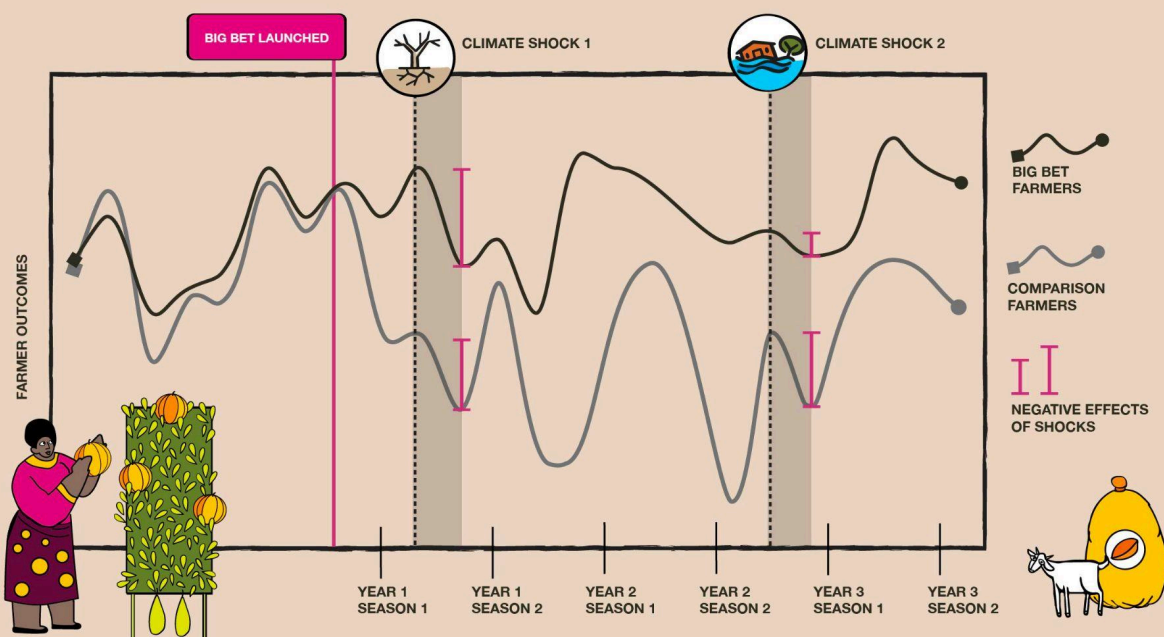
²⁰ World Bank, 2023 Partnership for Economic Inclusion, In Practice, [Pathways to Climate-Resilient Economic Inclusion](#).

²¹ The programme directly responds to explicit requests and expressions of support for a multi-intervention programme focused on women smallholder farmers made by all four governments during a high-level roundtable, held in Copenhagen, Denmark on 30th April 2025. Government officials have been engaged in subsequent discussions to ensure plans for a big bet on adaptation align with and respond to governments' own plans and needs.

FIGURE 5

Measuring Impact

BRAC, in partnership with Mathematica, is developing a practical, outcome-based approach to monitor climate adaptation and resilience. Unlike complex indices that often fail to predict real-world outcomes, this method directly measures whether farmers maintain key well-being indicators—such as food security, nutrition, ecosystem health, and women's empowerment—during and after climate shocks. Through repeated surveys, BRAC will compare big bet farmers to others, assessing both resilience to shocks and performance in typical times. Embedded learning loops will guide continuous improvement, and open evidence-sharing will contribute to global understanding of effective climate resilience strategies. We expect big bet farmers to fare better than comparison farmers in the absence of climate shocks; recover quicker from climate shocks; and be less vulnerable to climate change overall over multiple years.



Two-by-two Evaluation Approach

The MEL strategy centres on a 2x2 evaluation design that provides a rigorous and intuitive framework for measuring climate resilience. Drawing from the latest research from Alloush and Carter²², this approach is specifically tailored to assess the programme's impact, using indicators associated with the programme's three intended outcomes, under both normal and adverse conditions, allowing for a nuanced understanding of the programme's ability to enable big bet women smallholder farmers to sustain the three intended outcomes in the face of a changing climate. Instead of applying multidimensional indices or theoretical constructs of resilience, our framework will focus on observable, outcome-based indicators that directly reflect the real-world experience of women smallholder farmers.

At its core, the 2x2 design compares outcomes across four distinct groups: (1) big bet participants who experience a climate shock, (2) comparison farmers who experience a climate shock, (3) big bet participants who do not experience a shock and (4) comparison farmers who do not experience a shock.

This design allows for two key comparisons:

- **Shock resilience** (comparing groups 1 and 2): Are big bet farmers better able to maintain key outcomes when shocks occur? For example, we might find that in a drought year, comparison farmers lost 60 percent of their harvests, whereas big bet farmers' yields declined by only 10 percent.

²² Alloush, M., & Carter, M. (2024). *On the definition and estimation of economic resilience using counterfactuals* (No. w33290). National Bureau of Economic Research.

- **Impact in typical times** (comparing groups 3 and 4): Do these farmers achieve higher well-being, even in the absence of shocks, building a stronger foundation for future resilience? For example, in a year with good weather, food security may increase by 30 percent for big bet farmers but remain flat for comparisons.

Taking both comparisons together, we can estimate the cumulative program impact across real world conditions.

Embedded Learning and Adaptive Management

Beyond estimating impacts, the big bet will integrate structured learning processes that promote evidence-based decision-making, continuous improvement, and knowledge generation. This will include a learning platform to foster learning and exchange across the four big bet countries and among partners within and across each country.

Key elements include:

- **Design phase customisation:** Prior to rollout, the MEL team will support the tailoring of intervention bundles in each country, drawing on early vulnerability assessments, stakeholder consultations, and formative research.
- **Small-scale pilots (2026):** Initial pilots will test feasibility, uptake, and early outcomes, enabling rapid iteration before national-scale deployment.
- **Regular learning cycles:** We will convene virtual and in-person learning events at key intervals—linked to agricultural seasons and reporting milestones—to review emerging data, surface implementation challenges, and co-develop course corrections.
- **Data systems and visualisation tools:** Dashboards and analytics platforms will integrate administrative, survey, and environmental data in near-real time, enabling programme managers to monitor exposure to shocks, detect trends, and respond proactively.

Contributing to Global Knowledge on Climate Resilience

By taking decades of experience, combined with a detailed review of the most relevant existing studies, we are confident that our solution represents the best possible bet for how to reduce climate vulnerability among women smallholder farmers. We will generate high-quality data both to inform continued programme iteration at BRAC, and broader policy and programming across Africa and South Asia. The combination of a strong counterfactual design, outcome-based indicators, and cross-country learning allows this strategy to contribute to a global evidence base. BRAC and Mathematica are committed to open dissemination of results, including through research publications, practitioner briefs, and policy dialogues. In doing so, we aim to fill critical knowledge gaps and help shape more effective, scalable, and equitable resilience programming for years to come.

VII. Coalition of Committed: Government and Civil Society in Partnership with Donors

Our ambition is to mobilise an initial investment of US\$300 million for our big bet on climate change adaptation to enable nearly two million women smallholder farmers to lift themselves and their families—roughly nine million people—out of climate vulnerability.²³ BRAC and the governments of Bangladesh, Liberia, Tanzania, and Uganda invite donors to join us in co-creating a vision that directly advances the priorities of climate-vulnerable countries and their communities. This approach builds on the momentum generated by a high-level Roundtable co-hosted by BRAC and the Danish Government in Copenhagen in April 2025. That convening brought together partner governments, leading bilateral and philanthropic funders, such as the Gates Foundation and Novo Nordisk Foundation, around the shared mission of driving resilient, inclusive climate change adaptation solutions, with a sharp focus on women smallholder farmers across Bangladesh, Liberia, Tanzania, and Uganda.

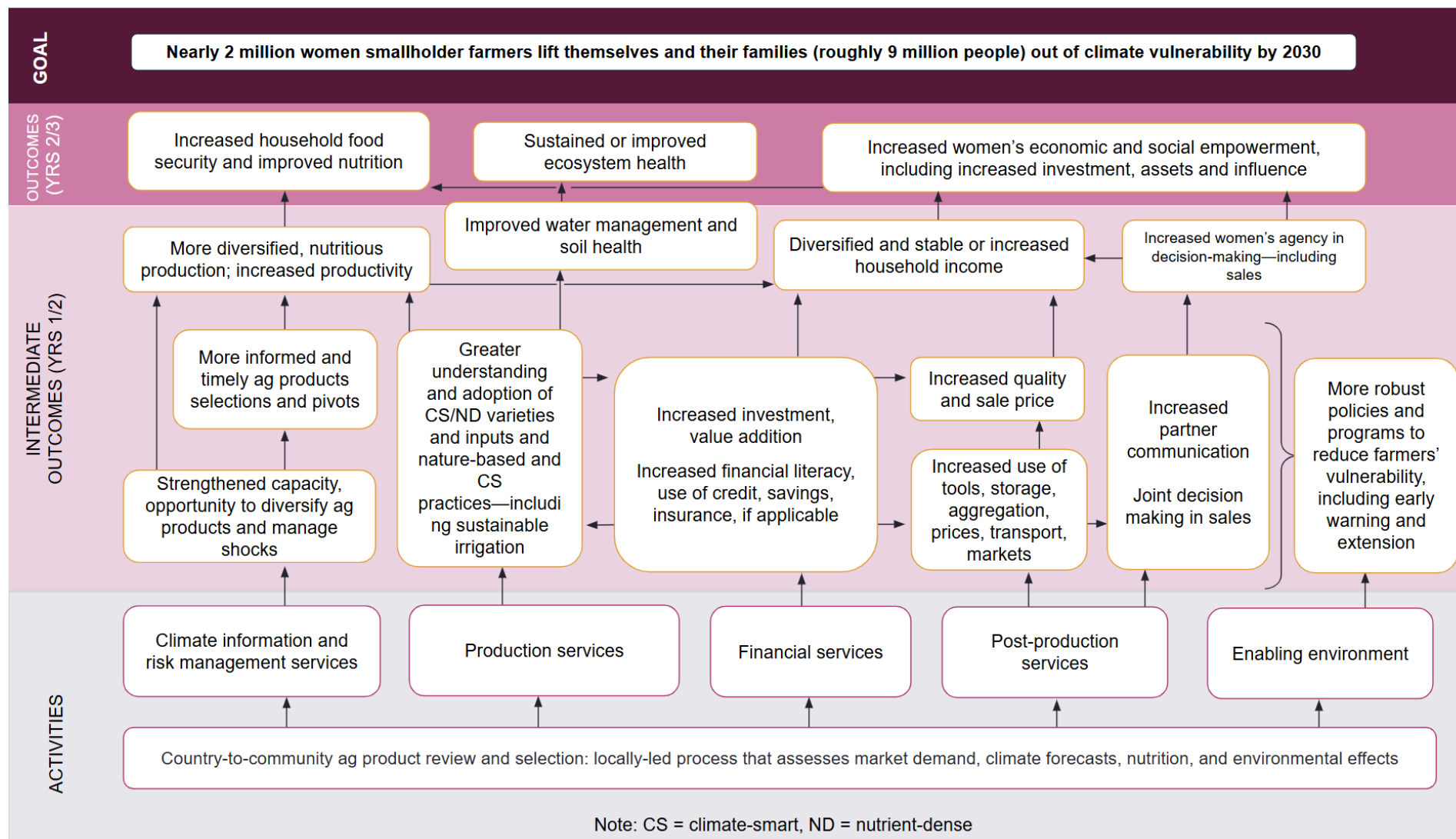
The collaborative process through which the big bet is being shaped has revealed a strong convergence of ambition among influential partners, including governments and the philanthropic community, who are increasingly recognising that climate change adaptation is inseparable from the broader sustainable development agenda. The big bet offers a unique opportunity for the Danish Government, in particular, to catalyse its existing partnership agreements and Memoranda of Understanding (MoUs) with key philanthropic actors around a shared vision for transformative climate change adaptation action at scale. Denmark's leadership in emerging alliances with the philanthropic sector further underscores a growing commitment to systemic, collaborative responses to global challenges.

We seek to translate this strategic alignment into concrete co-investments and joint advocacy, positioning the big bet as a bold, catalytic opportunity. Under this model, funding from diverse partners will be pooled and managed through robust governance structures, grounded in existing agreements but adaptable to facilitate collaborative financing and joint programmatic oversight. BRAC will serve as the convening and fiduciary lead, ensuring transparent financial stewardship, harmonised reporting, and unified accountability to all contributing donors.

This coalition is not solely about financing projects—it is about collectively amplifying a critical message: that investing in climate change adaptation is essential to protect and sustain decades of progress in human development. Without urgent adaptation efforts, the hard-won gains in poverty reduction and gender equity are at risk of being reversed by increasingly severe climate shocks. Through this coalition-based model, BRAC aims to leverage both financial capital and collective influence to drive global attention and resource flows toward communities whose resilience underpins sustainable development for all.

²³ We are still in the early stages of developing the programme design and as such, we do not have the programme fully costed. \$300 million is an initial target to launch the big bet. Other BRAC programming offers insight to average cost per person numbers (\$1,000-2,000 for programming in Africa and \$500-1000 for programming in Bangladesh on average, per household reached, over the course of the multi-year programme).

Annex 1: Theory of Change



Annex 2: Contextualisation

BRAC will work with women smallholder farmers, government, and local partners to tailor the big bet programme to respond to local considerations in each geographical context. The table presents a sample of key factors to inform each geography-specific design.

Geography	Climate Context	Considerations for Bundled Support	Enabling Ecosystem
Bangladesh (Northwest) 	• Drought • Increased heat • Erratic rainfall • Water scarcity	• Limited access to water • Drought-resilient crops	• Robust climate information systems; BRAC to strengthen delivery and usage of seasonal & sub-seasonal information by WSHF
Bangladesh (Southwest) 	• Coastal erosion • Salinity • Water scarcity • Increased cyclone exposure	• Limited access to water • Saline-resistant crops • Psychosocial impacts of previous disasters • Fisheries a key source of income, food security, and nutrition • Increased urban migration impacts local market activity	• Strong cyclone warning systems • Locally resilient rice varieties • Link to BRAC seed enterprise
Liberia 	• Increasingly erratic rainfall • Increased temperatures	• High cost of labour support • No storage solutions • No access to market information • Limited existing value chain addition • Limited access to mobile phones • Normalised gender-based violence	• Limited climate information systems – BRAC to coordinate with government to strengthen generation of information; identify potential private sector partners • Very low ratio of ag extension officers to farmers

Tanzania



- Unpredictable rainfall
- Drought
- Limited access to accurate and timely information, pre- and post-harvest
- Women excluded from sales decisions
- Normalised gender-based violence
- Relatively strong climate information systems; BRAC to strengthen delivery and usage of information by WSHF

Uganda



- Unpredictable rainfall
- Drought
- Occasional floods
- Limited access to accurate and timely information, pre- and post-harvest
- Women excluded from sales decisions
- Normalised gender-based violence
- Sound climate information systems with limited access to weather updates among women – BRAC to strengthen delivery, confidence in and usage of information
- Low ratio of ag extension officers to farmers
- Link to BRAC seed enterprise

Annex 3: Illustrative Table of Programme Activities

Component	Climate information and risk management services	Production services	Post-production services	Financial services	Enabling environment
Objectives	Equip women farmers to plan their optimal ag products mix and pivot to manage shocks	Equip women farmers with technology and skills to plant, maintain, and harvest their optimal ag products mix	Equip women farmers to harvest, store, process, and sell ag products at advantageous times and prices	Give women farmers financial services and financial literacy to support the entire ag product cycle	Strengthen policies and programming to sustain post-project outcomes and prepare for scale
Value chain link	All	Preparation, Production	Post-production	All	All
Roles	- Government regional and district technical advisors (1 per region and several per district. District advisors could work closely with public extension agents to create 2-person teams in some contexts.) - BRAC community agriculture promoters (1 per community) and model farmers (1-3 per community)			- BRAC MF - BRAC VSLAs	BRAC national and regional programme leadership
Activities (and relevant value chain link when not all)	<i>National level</i> - Attend participatory scenario planning (PSP) events <i>Regional level</i> - Host PSPs to share, translate, and discuss forecasts (prep) <i>Community level</i> - Translate climate forecasts and soil maps, give TA on scenario planning (prep) <i>Value chain approach:</i> Facilitate ag product selection given demand, nutrition, food security, environment, potential shocks (prep) - Give TA on weather forecast use, pivots based on forecasts (production, post-production)	<i>Regional level</i> - Analyse resilience and nutrient density of released and upcoming varieties (prep, production) - Establish linkages between farmer groups, research institutes, and seed companies to secure improved seed, promote QDS (prep, production) - Establish linkages between farmer groups and universities to secure water needs assessments (prep, production) <i>Community level</i> - Facilitate irrigation access via public and private sector (prep, production) - Facilitate access to CS/ND varieties for selected ag products via dealers, companies, research (prep) - Give TA on nature-based and climate-smart inputs and practices for selected value chains via model farms (production) - Monitor and mitigate deforestation	<i>Regional level</i> - Map buyers, build relationships with women-friendly buyers, and link buyers to farmers <i>Community level</i> - Facilitate farmer access to prices (via phone, visits) - Provide TA on buyer identification, price analysis, negotiation - Promote storage and market opportunities for selected value chains - Promote gender dialogue on women's agency in sales	<i>National, regional levels</i> - Convene financial institutions to advance weather index insurance <i>Community level</i> - Provide flexible loans that can accommodate input purchases, hired labor, irrigation, storage, etc. for selected ag products - Promote gender dialogue on loan use and repayment	<i>National level</i> - Engage in national climate outlook forums - Convene public, private, and nonprofit sector actors to advance early warning and disaster risk management systems - Co-create new national curricula with extension authority (information and risk management, climate-smart inputs, etc.) <i>Regional levels</i> - Convene multi stakeholder platforms to diagnose and address constraints in value chains in which women farmers participate