BRACC
BUILDING RESILIENCE AND ADAPTING TO CLIMATE CHANGE

BRACC EVALUATION SYNTHESIS REPORT

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Contents

List of Acronyms

BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
BRACC	Building Resilience and Adapting to Climate Change
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters (DFID programme)
CAHW	Community Animal Health Workers
CDM	Clean Development Mechanism
DFID	Department for International Development
DRR	Disaster risk reduction
EQ	Evaluation question
EU	European Union
EWS	Early Warning Systems
FAO	Food and Agriculture Organisation
FCDO	Foreign, Commonwealth and Development Office
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoM	Government of Malawi
HI	Hanging in
ICF	International Climate Fund
IE	Impact evaluation
IP	Implementing Partner
KPI	Key Performance Indicator
LCDs	Least Developed Countries
MCHF	Modern Cooking for Healthy Forests
M&E	Monitoring and Evaluation
MEAL	Monitoring, Evaluation and Adaptive Learning
MIRA	Measuring Indicators for Resilience Analysis
MRC	Medical Research Council
MVAC	Malawi Vulnerability Assessment Committee
NGO	Non-Government Organisation
NRS	National Resilience Strategy
PE	Process Evaluation
PROSPER	Promoting Sustainable Partnerships for Empowered Resilience
RCT	Randomized Control Trials
SAMS	Smallholder Agricultural Marketing Systems
SO	Stepping out
SU	Stepping up
TA	Technical Assistance
ToC	Theory of Change
UBR	Unified Beneficiary Registry
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund

VAP	Village Action Plan
VA	Village Agent
VfM	Value for Money
VSLA	Village Savings and Loans Associations
WFP	World Food Programme

Executive Summary

The Programme

The Building Resilience and Adaptation to Climate Extremes and Disasters (BRACC) programme is a five-year, £90.6 million programme funded by the UK Foreign, Commonwealth and Development Office (FCDO). It provides targeted support in the most vulnerable districts, communities and high priority catchments in Malawi, to strengthen the resilience of poor and vulnerable households to shocks and reduce their annual dependence on humanitarian aid.

The programme aims to do this through taking market-based approaches to improving people's livelihoods, including supporting climate smart agriculture, and developing scalable social safety net systems that respond more predictably and efficiently to weather and climate-related shocks. BRACC also addresses environmental degradation, a key long-term risk facing Malawi, by reducing urban demand for charcoal, the most significant driver of deforestation & degradation, and by supporting the protection of key national parks across Malawi. The programme has 5 components:

- Component 1 Climate resilient livelihoods (PROSPER)
- Component 2 Provision of a scalable safety net or 'crises modifier' (PROSPER)
- Component 3 Strengthening social protection systems (GIZ)
- Component 4 Natural resource management (African Parks and MCHF)
- Component 5 Evidence, knowledge and policy influence (BRACC Hub)

BRACC is being implemented at various levels and locations. PROSPER focuses on Balaka, Chikwawa, Mangochi, and Phalombe; African Parks (AP) focuses on Nkhotakota; GIZ is working nationally and through 11 priority districts with training in 15 districts; and Modern Cooking for Healthy Forests (MCHF) is working nationally.

Targeting

BRACC's target groups are defined in line with Malawi's National Resilience Strategy, along three broad types of strategy pursued by poor people: 'hanging in (HI)', 'stepping up (SU)', and 'stepping out (SO)' with the implicit assumption that there is a graduation pathway through, and the understanding that all categories needed to have labour capacity to participate in resilience-building activities.

Resilience

The BRACC partners define 'resilience' as the capacity to withstand and recover from shocks and stresses. Based on this definition, the 3As explanatory conceptual framework breaks resilience down into a set of inter-related capacities to anticipate, absorb, and/or adapt to (the 3As) climate extremes and disasters, and for transformation:

- Absorptive capacity is the ability, using available skills and resources, to face and manage adverse conditions, emergencies or disasters;
- Anticipatory capacity is the ability to anticipate and reduce the impact of climate variability and extremes through preparedness and planning;
- Adaptive capacity is the ability to adapt to multiple, long-term and future risks, and also to learn and adjust after a disaster. It is the capacity to take deliberate and planned decisions to achieve a desired state even when conditions have changed or are about to change; and
- Transformation refers to improvements in the underlying drivers of vulnerability to shocks and stressors, and can occur when the 'rules of the game' are altered, for example when power dynamics, policies or regulations and/or the conditions of inequality are improved for people exposed to risk. Transformational approaches are fundamental to strengthening resilience, particularly at systems level.

The Evaluation

This report presents a synthesis of quantitative and qualitative evaluation of the BRACC programme, carried out after just over 2 years of implementation. The evaluation scope was originally designed as a midline

quantitative (RCT panel design) survey focusing on just one evaluation question (EQ4). However, ODA budget cuts meant that the midline subsequently corresponded to the cessation of many activities under the programme including the PROSPER programme. As a result the scope of the evaluation was to include a qualitative round of data collection in order to be able to answer a broader range of questions, focusing on early results.

This synthesis draws on quantitative data generated through household surveys in treatment and control communities in PROSPER Districts, as well as qualitative data collected through key informants and case study interviews and focus group discussions. Qualitative data collection took place in communities across the four PROSPER Districts Balaka, Phalombe, Chikwawa and Mangochi, in Nkhotakota and Ntchisi where African Parks is implemented, as well as with programme implementing staff across the programme. Other data includes the recent BRACC process evaluation report (July 2021), PROSPER Annual Survey (2020) and resilience measurement findings.

Findings

How the programme has been implemented

The programme design of BRACC, with different components implemented by various consortia and organisations, enabled capitalising on the contextual knowledge and networks of the implementing partners whilst effectively delivering the layered interventions.

Internally the different start dates of projects, and the need for the UN and NGO consortia of PROSPER to merge their proposals at short notice, meant that coordination was not optimised from the beginning. However, within PROSPER proactive coordinators and standard operating procedures supported within-consortium learning and leveraging comparative advantage of different partners. Ideally the Hub role would be available from the start to support programme-wide coordination.

Partnership with government was integral to design and worked well at district level, although national level coordination was more problematic. The combination of elections and then Covid meant it did not happen as intended with PROSPER and challenges with it led to early end of GIZ. Implementation design at community level was very participatory with inclusive exercises to identify wealth categories and then target the interventions, the selection of which was linked to community planning processes that had identified grassroots needs and priorities. Good efficiencies were achieved internally at input level (although less so at output level), and this was catalysed by Covid. However cross-organisation procurement efficiencies were suboptimal, and the financial reporting requirements were at odds with the commitment to adaptive management.

Exposure to and participation in interventions

Overall, PROSPER interventions reached 73% of households in targeted communities, in line with programme design. Nearly half of households reported participating in 3 or more interventions, in keeping with the programme's approach of bundling interventions. However, relatively few households were reached by some activities, including programmes that distributed assets such as Cash for Inputs or livestock pass-on. In addition, the lowest wealth category, 'hanging in', appears to have been targeted for a relatively low number of activities, and had low participation rates for activities that were broadly targeted.

Female-headed households participated in fewer activities on average, although for some activities, their participation rates were on par with those of male-headed households. This appears to reflect two factors. First, female-headed households are more likely to be in the 'hanging in' category, whose lower participation rates reflected targeting as well as additional barriers to participation. Second, female-headed households can face additional challenges with programme participation due to lower labour capacity as well as societal norms which limit women's behaviours.

Analysis of the impact evaluation data showed that many households in control communities also reported participating in PROSPER activities. For activities like village savings and loans (VSLA) groups and farmer groups, which are common in Malawi, households may have participated in activities sponsored by other stakeholders. However, some PROSPER activities like Cash for Inputs are quite unique, so this suggests there may have been some contamination of activities to communities other than those targeted. While problematic

for the impact evaluation methodology, this indicates that the reach of PROSPER went beyond the population of target villages. Qualitative data found extensive evidence of spillover effects due to PROSPER and other BRACC interventions, which serve to amplify programme impact.

Adoption of practices and technologies

The impact evaluation found positive adoption impacts across almost all practices and technologies that PROSPER promoted. Whilst we found relatively high adoption impacts for households who participated in PROSPER-related interventions, the number of households adopting the practices were relatively modest given the limited number of households participating in the interventions by the midline stage.

For uptake of improved agricultural practices, the impact evaluation study found high adoption impacts for households who participated in PROSPER related interventions, these included: irrigation use, crop storage, accessing of agricultural inputs and livestock practices. Smaller participator impacts were found on the adoption of widely promoted conservation agriculture practices, whilst no or inconclusive evidence was found for the adoption of natural resource management practices and agricultural market access respectively.

The impact evaluation found positive adoption impacts on the accessibility and use of financial services along with the building savings and taking loans for households who participated in VSL and MFI related interventions (over 35% of households). Insurance uptake however was low, less than 2%.

For interventions that promoted the access and good use of climate information, the impact evaluation found that participator households (14%) reported higher improvements in the accessibility, quality and use of climate information compared to similar non-participators.

Outcomes and Impact: what the BRACC programme has achieved

A summary of findings in relation to the evaluation questions is as follows:

***EQ1**. To what extent did the programme contribute to strengthening climate resilience/adaptive capacity to shocks, taking into account a changing climate, at the household, [community and national] levels? In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups)?*
There are more positive intermediary outcomes, for example on crop diversification, increased crop sales, increased livestock assets, and reduced use of negative coping strategies at this stage than high level impacts, for example on nutrition, food security, incomes and resilience – which is in line with expectations, although modest improvements were observed for income. Barriers related to gender and poverty continue to affect intermediate outcomes and high-level resilience impacts, with large gaps in yield outcomes remaining for female-headed households, and households in the lowest income categories. Female-headed households also had worse outcomes across a number of resilience-related indicators. However, for some outcomes, programme impact was greatest for female-headed households and poorer households.

***EQ2.** To what extent are the theory of change and intervention objectives of the programme responding to the current needs of the programme participants and stakeholders (household, community and national levels)?*
According to the theory of change there is impact for most intermediate outcome objectives, and signs of success for some of its higher-level impact objectives, which is in line with, or better, than what would be expected given the timeframe, budget cuts, and early curtailment of the programme. Adoption and participation are generally high, although typically less for female-headed and 'hanging in' households.

***EQ3.** How complementary are the programme interventions and how well do they fit with the interventions of other actors in the Malawian context?*
Careful bundling and layering of interventions within the programme is positive. Coordination between BRACC implementing partners and external partners is strong at district level, although more variable beyond, particularly at national level.

***EQ4.** To what extent has the programme achieved its objectives, and its results? How do the findings differ by participant type and location?*
BRACC's programme design is complex, reflecting the multiple layers required to build resilience. Although transaction costs tend to increase with size, strong previous implementation experience in Malawi allowed most components to commence rapidly, and good working relationships were facilitated by coordinators within PROSPER. Coordination between the components was partly impeded by the later start of the Hub role.

***EQ5**. Is the project being implemented in the most efficient way compared to alternatives?*
Analysing cost efficiency is impeded by the Value for Money (VfM) Strategy never being implemented due to impending budget cuts, but fund utilisation was good and indirect costs of 5-14.8% are at the lower end of the range of similar projects. Early adaptations in the programme were more tactical than strategic, but the latter was present in Cash for Inputs and the use of triggers for the crisis modifier. Covid caused some additional costs but also prompted some flexibility and innovation in delivery; whilst the irregular funding and ultimate early curtailing of the programme impeded value for money.

***EQ6.** To what extent will the programme have transformational impact and bring about systems change?*
The emphasis on capacity building within BRACC bodes well for sustainability and, despite early closure of parts of the programme, many beneficiaries stated that they would continue with their interventions. For real transformation, systemic changes are required which typically take longer to become apparent, but even early signals are weak. Linkages with national government were weaker than hoped as a result of various factors, including the presidential election and its re-run, although the commitment of the new president to mindset change may be conducive to enabling system transformation.

Resilience and climate change adaptation outcomes

BRACC mainly supported its participants to build their adaptive capacity to climate-related shocks and stressors (strong evidence). There are also initial signs of participants' absorptive capacity having been built, although this varied across the different participant households – both in terms of their confidence that this was the case but also in the way that they had experienced (the same) shocks and stressors during the programme's lifetime (medium evidence). There is limited evidence that anticipatory capacity has been built by BRACC. This is unsurprising, given that most programme activities did not focus on preparedness and planning.

How and why change happens in the BRACC programme to build resilience

The evaluation provided evidence for a number of mechanisms (barriers and enablers) that allow change to happen in the programme, or that potentially impede implementation or achieving results.

Summary of Enablers

- The programme is perceived to be relevant to and by participants. Interventions and activities meet local needs and this fosters high levels of participant interest and commitment to the programme.
- The targeting categories were perceived to be useful in matching participant capabilities to the 'right' activities.
- Demonstration effects provide important proof of concept for take-up, by both BRACC participants and non-participants.
- Participants found BRACC to be credible, rooted in positive previous experiences working with the implementers, as well as early involvement of local leaders, leading to high levels of trust and good community coordination.
- Participant buy-in is enhanced by high levels of motivation to carry out project interventions, underpinned by a strong sense of ownership over the activities rooted in BRACC's participatory and inclusive approach. Participants were also encouraged by the commitment demonstrated by programme staff.
- The underlying programme design emphasising training and support, and embedding this within communities through the lead farmer approach, was seen to be foundational to stimulating participant behaviour change and adoption of interventions and enhances likely.
- Widespread and continued uptake, including compliance with programme procedures, have been supported through community-level institutional structures that encourage cooperation.
- Access to start-up resources such as inputs, as well as cash payments, are crucial to enable people to start participating, putting training into practice. This is especially important in a context where people find it challenging to meet their basic needs.
- Participating in a range of linked and/or appropriately sequenced interventions amplifies results

Summary of Barriers

- Lack of resources and capital impede the adoption of livelihood activities, with meeting basic needs taking precedence. This also impacted on the ability to carry out BRACC programme activities. A number of contextual factors come into play, related to the underlying root causes of vulnerability, including climate-related shocks and stressors and systemic challenges such as poor market access, high costs of inputs and low prices for outputs.
- Multiple, negative knock-on effects arise from lack of funds extending across many areas of life. Inability to purchase affordable inputs directly impacts production and in turn incomes, as well as ability to deal with pests and other shocks and stressors and the ability to recover after a shock.
- Lack of access to funds meant that some participants needed to continue to do piecework, which further affected investment in their own farms and other livelihood activities. Other negative coping strategies included taking out high interest loans.
- For a small subset of participants, issues with project delivery including perceptions of inadequate coverage and continued misunderstanding of the programme approach, reduced their interest and commitment and discouraged participation. There were some reports of lack of compliance with
- Participants acknowledged that early closure of the programme would limit the benefits of the programme as many of the activities need a longer timeframe of support to come to fruition
- Market access and low prices continue to restrict programme potential, compounded by lack of market power of smallholder farmers.
- Participants continued to be affected by environmental shocks and stressors. In combination with contextual including economic factors, this serves to erode gains made through the programme

Conclusions

It is difficult to make conclusions about resilience capacities and resilience outcomes from the programme. Progress after just over 2 years of implementation shows a reduction in extreme poverty for some, but how long it will be sustained is unclear. An extra year or two of full BRACC implementation could make a huge difference in embedding new practices and provide the opportunity to stress test against shocks, demonstrating the extent to which resilience is likely to have been strengthened. Sustainability will also be limited by the less-than-anticipated levels of governance and systems support. Theoretically, some financial cushion provides absorptive capacity, and if natural environment-related improvements are sustained that will help too. Anticipatory capacity does not seem well integrated, evidenced by little mention of climate information or early warning in the interviews. Adaptive capacity may have been built through improved knowledge, but it is too early to tell. There is little evidence of transformational change at this stage of implementation.

There are lessons about measuring resilience (full details in the accompanying synthesis paper on resilience measurement), including:

- Resilience is context-specific and needs to be adaptive in the context of changing conditions
- Indicators may be more reliable if categorised and relationships between the categories are examined; this evaluation divided indicators into those (1) representing households' attributes, behaviours and capacities, (2) capturing households' experiences of and responses to stresses and shocks, and (3) representing factors that influence how well households can manage and recover from shocks.

In addition, indicators that capture the effects of climate hazards can help to track resilience outcomes, but need to be interpreted in the context of climate information. Over shorter timescales more sophisticated approaches may be needed, such as development of counterfactuals based on a comparison between observed values of impact level indicators and predicted values based on correlations with climatic variables.

Lessons Learned

Lessons for designing resilience and adaptation programming.

- The layering approach with participants adopting multiple, linked interventions is more effective
- Integrated approaches to market development are key

- In the Malawian context, the crisis modifier feature is essential
- Timeframes are key: resilience strengthening relies on systems change and this takes time
- Poverty reduction and resilience building should not be conflated, one does not necessarily result in the other
- Programmes designed to be adaptive may need to consider financial management systems to enable adaptation
- Larger programmes need budget for a high level of coordination activity.

Lessons for implementing resilience and adaptation programming.

- There is value in implementing a 'whole community' approach
- Start-up resources are vital to complement training
- Demonstration effect are crucial to take-up
- Participation relies on access to resources beyond those required to meet household needs
- Gender roles and norms persist and act as barriers to women's participation; a dedicated GESI strategy should underpin all activities.

Recommendations

Recommendations for Programme Design

- Design implementation consortiums to balance comparative advantage of the different partners and streamlined management, and ensured that consortium management is well resourced. While inclusion of diverse implementing partners can strengthen implementation by allowing a project to draw on each partner's learning and capacities, there are costs to coordination. Consortia should be carefully designed to leverage unique capabilities, while also ensuring that the number of partners is reasonable and that project management approaches are complementary. Where consortia are used, strong support and institutions should be in place to facilitate coordination. A knowledge management partner could assist in this, but this partner should be in place ahead of project planning and implementation.
- Programmes with a focus on adaptive management need timelines and mechanisms that facilitate this objective. Adaptive management requires time to innovate, implement, evaluate, and adapt; short or truncated project timelines limit the ability to complete these cycles. Mechanisms including flexible budgets and financial systems, as well as flexible approaches to monitoring and evaluation, are needed to enable adaptation, and ensure that programme evaluation keeps pace with programme adaptations. Joined-up monitoring and evaluation linked to adaptive management approaches should also be in place from the beginning.

Recommendations for Resilience Intervention Design

- It is worthwhile to spend time early on to manage participant expectations. Given the prevalence of previous related initiatives in Malawi, there are often preconceptions about targeting (e.g. poorest of the poor) or intentions (poverty reduction and food security), and the efforts PROSPER made to explain why they were targeting different wealth groups and providing training rather than assets were widely appreciated. This is a good practice that needs to be continued – as no projects are ever going to be working somewhere where no other projects have previously taken place.
- Consider integrating resilience-focused programmes alongside programmes focused on meeting basic needs, such as social protection programmes or ultra-poor graduation programmes. The BRACC programme highlighted the challenges that the poorest and most disadvantaged households face trying to build resilience, or even participate in key interventions, while also addressing food security, adequate clothes and housing, and education expenses. Programme targeting often restricted lowest wealth groups from participation in popular and impactful activities due to concerns that immediate needs or lack of complementary resources would reduce the impact of these activities, and in many cases, this was likely true. However, disadvantages households that were able to participate often experienced the greatest impact. This suggests that strategies that enable the poorest household to successfully participate in these interventions have the potential to be highly transformative. The PROSPER model of bundled resilience

interventions could be layered onto programmes targeting basic consumption, or could be a programme that households graduate into from more basic support.

Recommendations for Resilience Measurement

- Measuring resilience progress:
  - There is a need for clearer graduation pathways and measurement of thresholds and criteria for different HH categories/graduation
  - Measurement of CSA adoption/practice can be further refined. The annual survey asked about 15 different interventions, but nuancing which are high impact / desirable to adopt, versus others that are time/resource intensive to adopt and might be challenging for households.
- Strong theoretical underpinning to the drivers of resilience is necessary to pick indicators/design an index that captures context-specific resilience.
- The resilience index analysis shows further interesting and useful analysis could be developed. In particular there is a risk of including too many circular-referring indicators that capture aspects of poverty and income without explicit theoretical linkage to resilience. Engaging NRS and other stakeholders such as Titukulane potentially in a workshop focusing on resilience measurement, setting definitions for HI/SU/SO targeting categories as well as graduation etc. would be a useful activity to take forward to build on lessons learned.

Recommendations in relation to the evaluation

- The evaluation team faced severely 'squeezed' timeframes for carrying out the evaluation with expanded scope effectively at midline. From the end of data collection, the team worked to a two-month timetable to complete both quantitative and qualitative analysis, synthesis and report writing for the deadline imposed by the funder. Given that 6 months was allowed for IFPRI's baseline quantitative work alone this represents a substantial constraint. It is recommended that FCDO allows further time post review of the evaluation report to work with the UN consortium on developing further the lessons learned into priority actionable recommendations to support the remainder of the implementation going forward.

Recommendations for UN Consortium as they continue to implement

- Lack of understanding of the way the programme has been designed to focus on capacity strengthening and asset building rather than hand-outs persists in BRACC, affecting people's perceptions of the programme and discouraging participation. As the UN consortium implementation is due to continue without the cash transfer element, strong and clear messaging and communication will be needed to ensure continued buy-in, as well as ensuring activities carried out and assets built so far continue and deliver actual benefits. This is especially crucial given the importance attached to elements like watershed payments for meeting basic needs.
- Potential gains made through programme participation may be eroded by exposure to shocks and stressors during implementation, suggesting mechanisms are necessary to protect these gains while resilience is being strengthened. A crisis modifier function performs well in this regard.
- Continuing with strong and clear messaging of programme approach and objectives will help support continued and further adoption or BRACC activities. This is especially important given the removal of cash transfer elements of the programme in a context of annual hunger gaps and widespread difficulties meeting food needs. Even though programme targeting was designed around people's likely ability to be able to participate in specific activities, in reality poverty profiles are relatively 'flat' and need is great.
- More time is needed for further discussion and communication of evaluation findings. It would be useful to bring together all stakeholders involved in implementing the programme in a hands-on dissemination workshop to discuss the meanings behind the findings and the recommendations and adaptations that appear to be emerging from the evidence in the 2021 evaluation.

Part 1: Evaluation Background

1. Introduction

1.1 BRACC Programme Overview

The Building Resilience and Adaptation to Climate Extremes and Disasters (BRACC) programme is a five-year, £90.6 million programme funded by the UK Foreign, Commonwealth and Development Office (FCDO). It provides targeted support in the most vulnerable districts, communities and high priority catchments in Malawi, to strengthen the resilience of poor and vulnerable households to shocks and reduce their annual dependence on humanitarian aid.

The programme aims to do this through taking market-based approaches to improving people's livelihoods, including supporting climate smart agriculture, and developing scalable social safety net systems that respond more predictably and efficiently to weather and climate-related shocks. BRACC also addresses environmental degradation, a key long-term risk facing Malawi, by reducing urban demand for charcoal, the most significant driver of deforestation & degradation, and by supporting the protection of key national parks across Malawi.

From its launch in 2018, the programme was due to provide direct benefits to 1.7 million poor and vulnerable people in Malawi over the following 5 years. The recent ODA cut has had a direct impact in Malawi and on the scale of the BRACC programme. The reduction in programme budgets has unfortunately led to the closure of many programme activities, including the NGO-led activities under the Promoting Sustainable Partnerships for Empowered Resilience (PROSPER) programme. The UN-led activities under PROSPER, targeting the most vulnerable families, will be continued in Balaka and Phalombe. This will cover climate services, disaster risk reduction, market support, access to finance, watershed management and agricultural training – but without accompanying cash transfers. The programme will continue to receive UK aid funding for these activities to run until 2023.

1.2 Purpose of the report and intended uses

This report presents a **synthesis of quantitative and qualitative evaluation of the BRACC programme**, carried out after just over 2 years of implementation. The evaluation activity was originally planned as a midline quantitative panel survey under the RCT design, to examine the following midline evaluation question and subquestions. drawing on the earlier process evaluation as well as the quantitative survey data: "To what extent are the BRACC programme objectives likely to be achieved? How, why, for whom, in what contexts? (EQ4b); How effective has the programme been in delivering its planned outputs? Did the programme learn from experience and adjust its level of investment to focus on the most successful activities?".

However, as a result of ODA cuts, significant changes were made to the BRACC programme, with the intended midline also marking the end of implementation by the NGO consortium under PROSPER and the funding to BRACC Hub for knowledge management support including MEAL activities. Consequently, the evaluation team expanded the scope of the evaluation at midline to treat it as an effective endline of the programme according to its original design. The aim was to try to capture where possible emerging outcomes in order to try to address to some extent all of the evaluation questions and selected subquestions where we could realistically expect to see changes within the 2-year timespan of the programme. This meant the design also needed to be modified to include a qualitative round of data collection (originally scheduled to take place later in September 2022) to take account of the limitations in quantitative data in examining EQ2-EQ6 in particular, which were formulated post-baseline, and in explaining how and why change happens. The evaluation (which this report will refer to as the 2021 evaluation) had a hard deadline of December 2021, which meant that the quantitative and qualitative data collection needed to take place simultaneously. This is discussed further in Section 3.

Under the revised design, the main questions the 2021 evaluation activity attempts to address are:

> **EQ1.** To what extent did the programme contribute to strengthening climate resilience/adaptive capacity to shocks, taking into account a changing climate, at the household, [community and national] levels? In

which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups)?

EQ2. To what extent are the theory of change and intervention objectives of the programme responding to the current needs of the programme participants and stakeholders (household, community and national levels)?

EQ3. How complementary are the programme interventions and how well do they fit with the interventions of other actors in the Malawian context?

EQ4. To what extent has the programme achieved its objectives, and its results? How do the findings differ by participant type and location?

EQ5. Is the project being implemented in the most efficient way compared to alternatives?

EQ6. To what extent will the programme have transformational impact and bring about systems change?

To answer these question the synthesis draws on quantitative data generated through household surveys in treatment and control communities in PROSPER Districts, as well as qualitative data collected through key informant and case study interviews and focus group discussions with BRACC programme participants, implementers and district and community-level key informants. Other data includes the recent BRACC process evaluation report (July 2021), PROSPER Annual Survey (2020) and resilience measurement findings.

The intended users of this report are:

- FCDO: By providing an assessment of how and why BRACC activities work, capturing innovation and strengthening the BRACC theory of change (ToC), it is hoped that this report can contribute evidence on how to plan and implement strategic resilience-strengthening interventions.
- The BRACC Implementation Partners (IPs): the evidence presented in the report about how, when and where BRACC interventions work, highlighting lessons learned, could be used to inform the way the remaining activities are implemented under BRACC by the UN consortium, as well as to inform future programmes.
- Others designing, implementing, funding and evaluating resilience-building projects and programmes: as a theory of change-based mixed methods approach the evaluation offers valuable lessons in monitoring and evaluating complex, resilience-focused interventions including insights into appropriate and effective resilience measurement.

1.3 The evaluation

This 2021 evaluation of the BRACC programme has been undertaken by the BRACC Hub (under the NIRAS-LTS-led Knowledge, Policy and Implementation Support Manager contract[1], the terms of reference for which is provided as a separate document as Appendix A) between September and December 2021, with data collection in September and October 2021 (Table 1). The timing of the evaluation aligns with the timing for quantitative data collection for the baseline carried out in September and October 2019, in line with the panel data approach of the original design. The timeframe for programme closure, including finalising all activities of BRACC Hub by 31st December 2021, meant that sequencing of the quantitative and qualitative data collection to allow for direct interrogation of quantitative findings through qualitative enquiry was not possible. Instead qualitative data collection took place concurrently with the quantitative survey so that there would be enough time for analysis and write up. For this reason, the qualitative work aimed to address evaluation questions rather than direct validation of quantitative findings.

The purpose of the evaluation is to assess progress of the BRACC programme towards strengthening resilience and adaptation after just over 2 years of implementation. The evaluation takes a theory-based mixed methods approach, drawing on a randomized control trial (RCT) design for the quantitative data from PROSPER treatment and control villages, with qualitative data collected across the programme.

[1] The KPISM contract for the BRACC Hub was led by NIRAS-LTS, working with the Overseas Development Institute (ODI) and the Centre for Development Management (CDM).

Originally intended to principally feedback into PROSPER programme design and implementation in line with an adaptive management approach (see original monitoring, evaluation and adaptive learning (MEAL) Framework in Appendix B), the scope of the midline evaluation was broadened in response to significant changes to BRACC programming due to ODA cuts. This includes extending the focus to encompass additional evaluation questions from the evaluation matrix, adding Value for Money and qualitative evaluation activities to be able to address a broader range of questions. The BRACC Hub's main remit has been to support PROSPER MEAL as the recipient of the largest share of BRACC funding, but expanding the scope of the midline data collection allowed us to include African Parks and Modern Cooking for Healthy Forests (MCHF, which had not yet started implementing at the time of data collection) in qualitative data collection in order to maximise learning. While MCHF could not be included in community-level data collection, we were able to conduct a programme-level KII to contribute to learning about design and implementation including any potential secondary benefits from programme design. GIZ's Social Protection component is not covered in the midline, but its status is captured in the process evaluation[1], which describes how political upheaval followed by the impact of COVID-19 slowed implementation, before the programme was subsequently cancelled.

Modifications to the evaluation design are discussed in more detail in Section 3. The evaluation findings will inform PROSPER implementation that will continue under the UN consortium, and future resilience programming undertaken by other donors in Malawi, and elsewhere.

Table 1: 2021/Midline Evaluation Activity Timeline

2021/Midline Evaluation Activity	**Timeframe**
Planning and Design • Review Quants Questionnaire & Protocols • Develop background note on survey and qualitative data collection processes • Consultation on proposed survey amendments with FCDO and PROSPER • Qualitative design including tools • Finalisation of survey and data collection guide	June 2021
Ethics review: NCRSH in Malawi	July-August 2021
Data Collection	30th August-6th October 2021
Qualitative Data Collection • Researcher training and piloting/testing and amending qualitative tools • Qualitative data collection *Quantitative Data Collection* • Tablet programming • Survey team training • Instrument pretest • Amend instrument based on pretest • Training update • Data collection	
Data cleaning/coding	October 2021
Data Analysis – Quantitative and Qualitative	November 2021
Synthesis and report writing *Consultation with PROSPER programme implementers*	December 2021 *9th December 2021*

1.4 Report structure

The report is presented in three parts (Part 1: Background, Part 2: Findings, Part 3: Discussion and Learning), each broken down into a number of sections.

Section 2 describes the BRACC programme, the Malawi context and how the programme has been structured and implemented to deliver a range of activities relevant to resilience strengthening, targeting people in the

most vulnerable communities. The section includes the theory of change and description of how resilience is conceptualised in the programme. Section 3 provides a description of the evaluation approach and modifications made to the original evaluation plan in light of the recent ODA cuts and significant changes to the programme. Section 4 sets out the methodology for the synthesis, including evaluation approach, a description of data, and the approach to the synthesis and assessing quality of evidence, ethics and potential limitations. The main findings of the synthesis are in sections 5 to 9 (Part 2: Findings), with the structure following the flow of the theory of change from implementation to uptake through to outcomes and impact. Section 5 focuses on process and how the programme has been implemented to date. Section 6 describes exposure to and participation in interventions at the midline, including spillover effects while Section 7 presents findings on adoption of programme activities. Section 8 describes evidence for intermediate outcomes, before moving on to discuss in Section 9 the outcomes in relation to the theory of change and in terms of building resilience capacities, sustainability and transformational change. Section 10 outlines how and why change happened in the way it did, for whom and in what contexts, including barriers and enabling factors. Section 11 draws some conclusions on progress towards the BRACC objectives and resilience. Finally, Sections 12 and 13 present key lessons and recommendations.

2. BRACC Programme

2.1 Malawi Context

Malawi has high levels of poverty and scores low on human development indicators. There is strong reliance on natural resource-based livelihoods and maize production. Production levels, and thus food and income security, are threatened by natural resource degradation (particularly deforestation and land degradation) and frequent exposure to climate extremes including floods and droughts. In the 30 year period from 1979 to 2008 Malawi experienced more than 40 weather-related disasters[2]. National disasters were declared in 2015 (for floods), 2016 (for drought) and 2019 (for floods relating to cyclone Idai), which cost 0.6%[3], 5.6%[4] and 0.13%[5] of gross domestic product (GDP), respectively. On average, Malawi loses approximately 1.7% of GDP every year due to the combined effects of droughts and floods[6] – which is over 5 times higher than the average for least developed countries (LDCs) of 0.3%[7].

As a result, there is chronic food insecurity that is not helped by a political economy that distorts maize markets through subsidies and price fixing that enable rent-seeking by elites[8]. A significant proportion of the population is reliant on food assistance every year. Recent investments in social protection through the social cash transfer scheme are critical in supporting food security for the poorest of the poor, but only target a small proportion of the population[9].

Malawi does have policies in place to address climate change, disaster risk reduction, environmental degradation and social protection. The National Climate Change Management Policy was finalised in 2016[10] with the aim "*to promote climate change adaptation, mitigation, technology transfer and capacity building for sustainable livelihoods through Green Economy measures for Malawi*", and there is an accompanying learning strategy[11]. A revised Nationally Determined Contribution to the UNFCCC was finalised in 2021[12], and the National Adaptation Plan is under development.

The Disaster Risk Management Policy (2015) was finalised after the 2015 floods, aims to "s*ustainably reduce disaster losses in lives and in the social, economic and environmental assets of individuals, communities and the nation*" and is aligned with the Sendai Framework for Disaster Risk Reduction[13]. Both policies encourage mainstreaming of climate and disaster risk across line ministries and from national to local level. General environmental issues are addressed by the National Environment Policy[14], with a National Charcoal Strategy 2017-27[15] currently in operation to address the major cause of deforestation.

The Malawi National Social Support Programme II commenced in 2018 and includes the social cash transfer programme and a commitment to shock-sensitive social protection to reduce vulnerability to climate-related shocks and stresses[16]. However, fiscal constraints impede policy implementation and there are challenges with policy incoherence[17]. This arises in part because different ministries hold each policy (the Ministry of Forestry and Natural Resources for climate change; the Department of Disaster Management Affairs in the Office of the

President for disaster risk reduction and the Ministry of Gender, Children, Disability, and Social Welfare for social protection).

The chronic recurrence of food insecurity and concerns over intensification in the context of a changing climate prompted a focus on "breaking the cycle" in the last six years. The National Resilience Strategy (NRS) 2018-2030 was developed as a common programming framework to address these challenges through focusing on four pillars: resilient agricultural growth; disaster risk reduction, flood control and early warning and response systems; human capacity, livelihoods and social protection; and catchment protection and management, with gender equality and social inclusion as a cross-cutting theme[18]. Implementation of the NRS has been impeded by failure to finalise the institutional home – it was initially thought that it should be housed in the Office of the President or Vice President in order to be able to coordinate the relevant line ministries, but has temporarily been housed in the Department of Disaster Management Affairs. Significant donor support has been channelled towards NRS goals, including BRACC through its support to climate-resilient livelihoods, strengthening social protection systems, provision of a scalable safety net "crisis modifier", and natural resource management.

The NRS and several other sector-related initiatives (including, for climate change, the Revised Nationally Determined Contributions) recognise the importance of gender equality as a cross-cutting issue. Malawi also has a Gender Policy but implementation is sub-optimal and there is poor understanding of the intersectional drivers of inequality[19].

The four target districts for PROSPER (Balaka, Chikwawa, Mangochi and Phalombe) are in Malawi's Southern Region. They are regularly exposed to climate extremes (droughts and floods) and all are in the top 15 districts in the country in terms of risk of food insecurity over the period 2008-18. They are also all variously targeted for activities under the different pillars of the NRS. PROSPER Implementing Partners worked closely with district government through the District Commissioners and District Executive Committees, and partnered with various officers in implementing the different interventions, including Directors of Agriculture, Natural Resources and Environment, Directors of Planning and Development, District Crops Officers, District Social Welfare Officers, District Relief and Rehabilitation Officers, and District Community Development Officers. They also worked closely with traditional governance structures in the villages of implementation. African Parks worked in communities surrounding protected areas that they manage, namely Majete Wildlife Reserve and Liwonde National Park in the Southern Region and Nkhotakota Wildlife Reserve in the Central Region (Figure 1), and also collaborated with relevant government staff.

2.2 Programme Components and Activities

BRACC has been implemented at various levels and locations. PROSPER focused on Balaka, Chikwawa, Mangochi, and Phalombe; African Parks (AP) on Nkhotakota; GIZ is working nationally and through 11 priority districts with training in 15 districts; and Modern Cooking for Healthy Forests (MCHF) nationally (Table 2, Figure 1).

The programme is implemented across 5 components:

- Component 1 Climate resilient livelihoods (PROSPER)
- Component 2 Provision of a scalable safety net or 'crises modifier' (PROSPER)
- Component 3 Strengthening social protection systems (GIZ)
- Component 4 Natural resource management (African Parks and MCHF)
- Component 5 Evidence, knowledge and policy influence (BRACC Hub)

Table 2: Summary of the characteristics of the BRACC components

Component/characteristics	Climate-resilient livelihoods and provision of a scalable safety net ("crisis modifier")	Natural resource management	Strengthening social protection systems	Natural resource management	Knowledge, Policy and Implementation Support Manager

Implementing lead		PROSPER (consortium)	African Parks (organisation)	GIZ (organisation)	Modern Cooking for Healthy Forests (consortium)	BRACC Knowledge and Policy Hub (consortium)
Consortium members		Concern Worldwide, CUMO, FAO, GOAL, Kadale Consultants, UNDP, UNICEF, UN Resident Coordinator's Office, United Purpose, WFP	n/a	n/a	TetraTech, CEPA, Lilongwe Wildlife Trust, Winrock International, World Resources Institute, mHub	CDM, CEPA, Kulima Integrated Development Solutions, NIRAS-LTS International, ODI
Timeline of operation (contract period including inception)		December 2018-August 2021 (NGO consortium) July 2018-March 2023 (UN consortium)	August 2019-July 2021	November 2018-July 2021	September 2019-March 2023	March 2020-December 2021
Target level of operation	**National**	yes	n/a	yes	yes	yes
	District	Balaka, Mangochi, Phalombe, Chikwawa	Nkhotakota, Ntchisi, Kasungu, Mangochi, Chikwawa	n/a	Mzuzu, Nkhata Bay, Mzimba, Salima, Lilongwe, Dedza, Zomba, Blantyre	n/a
Key activities		climate-smart agriculture, nutrition-sensitive interventions, integrated watershed management, disaster risk reduction and climate services, market system development and inclusive business models, micro-finance and micro-insurance, lean season response	supporting protection of national parks	shock-responsive social protection, district and national systems strengthening and coordination	forest landscape restoration, promotion of modern cookstoves	programme-wide MEAL, policy advocacy, research, knowledge management and communications

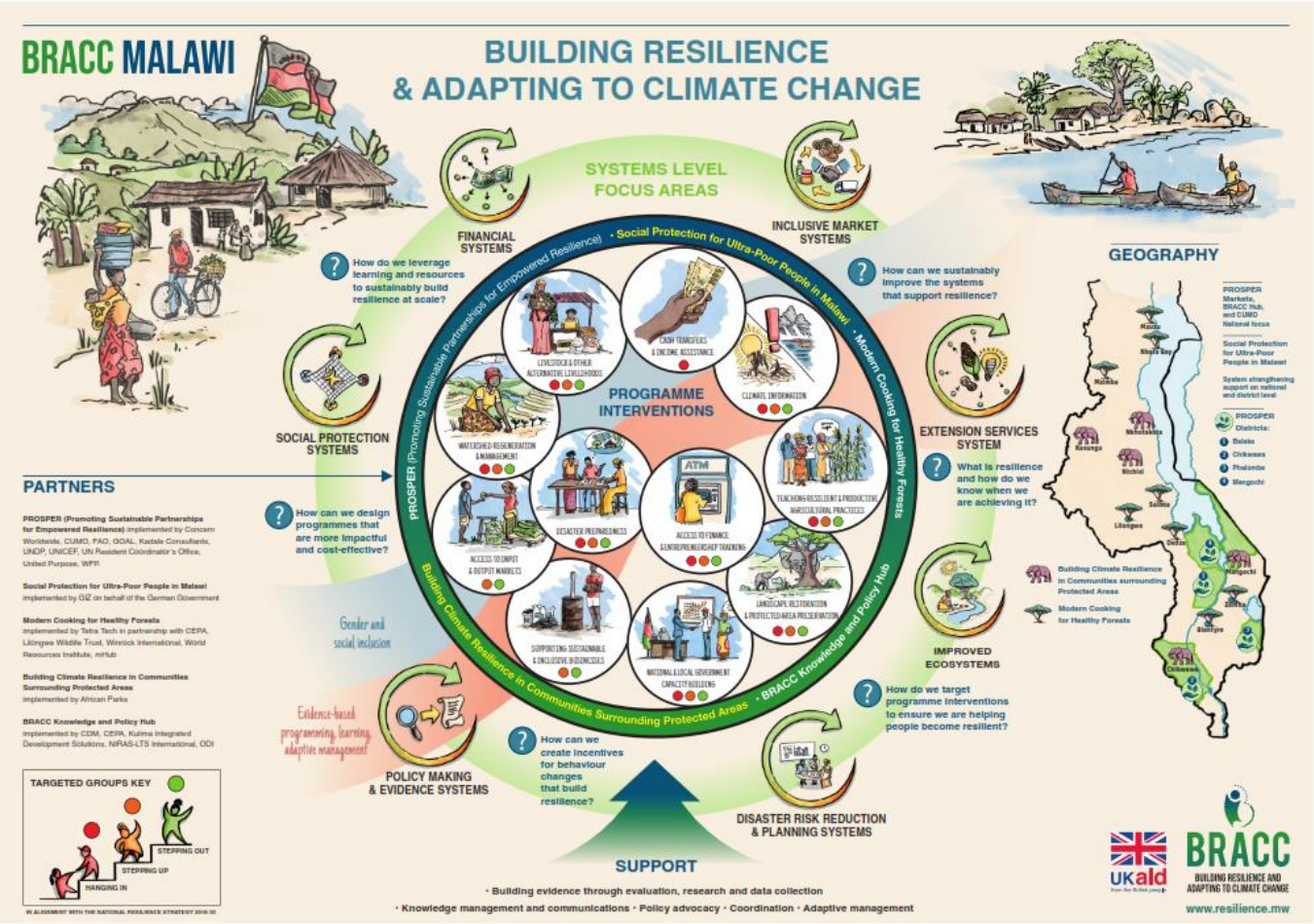
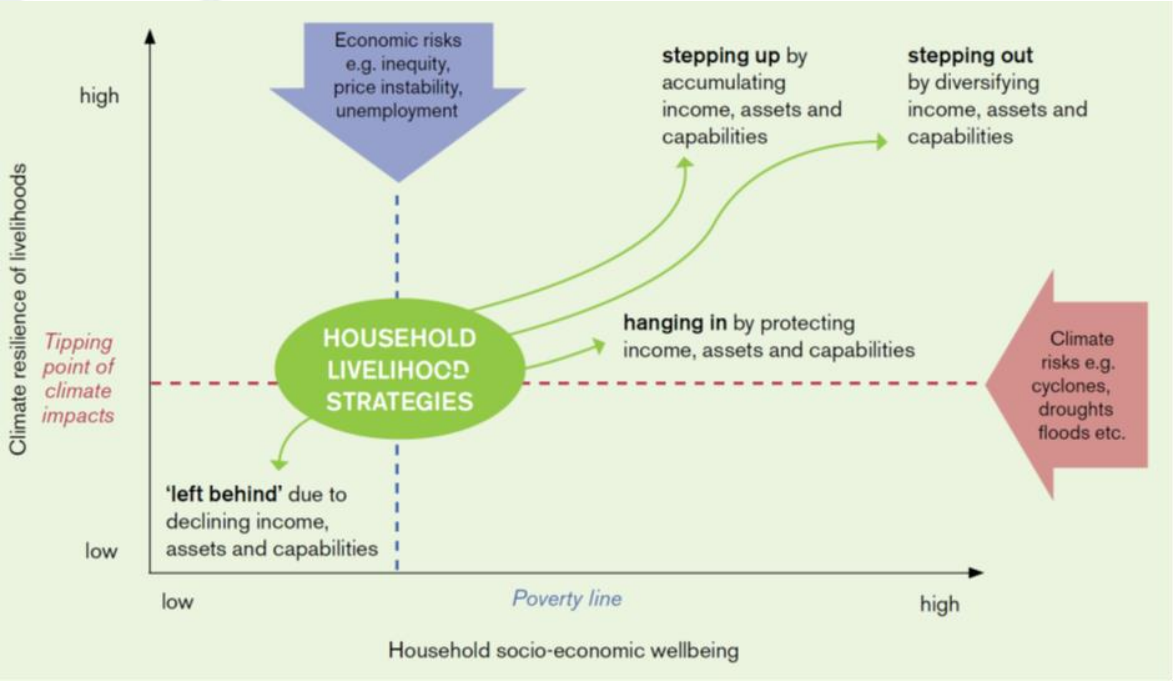


Figure 1: Graphical representation of the BRACC programme

2.3 Programme targeting

Targeting in BRACC – particularly within PROSPER – is at different administrative levels and there is also a combination of targeting strategies for individuals and households to take account of Malawi's flat poverty profile and the dynamic nature of poverty in the country. Within communities, the overall target group is vulnerable poor people with available labour capacity to build resilience. This is in-keeping with the UK country plan for Malawi in 2016 which prioritised the need to break the recurrent cycle of hunger by addressing the root causes of poverty and vulnerability to move away from expensive humanitarian response. This targeting also recognises the challenges faced by the BRACC programme's predecessor (Enhancing Community Resilience Programme) in trying to include ultra-poor labour-constrained households in resilience building activities rather than targeting them with safety nets. The categories of these target groups are defined in line with Malawi's National Resilience Strategy[20], along three broad types of strategy pursued by poor people: 'hanging in (HI)', 'stepping up (SU)', and 'stepping out (SO)' each with different interventions and the implicit assumption that there is a graduation pathway through, and the understanding that all categories needed to have labour capacity to participate in resilience-building activities (Figure 2). Table 3 shows PROSPER activities by targeting group.

Figure 2: Hanging in, Stepping up, Stepping out Framework



Source: Steinbach et al 2016[2122], adapted from Dorward et al 2009[2324]

Table 3: BRACC programme – PROSPER activities by target group

Group	Activities
All groups (households)	Nutrition information, livestock pass-on, watershed management activities, area and index insurance, VSLA
Hanging in: *Households with little or no potential for market engagement or an ability to 'step up' or 'step out', will 'hang in', using agriculture as a safety net rather than a driver to move up the livelihood ladder.*	Care groups, VSLA group formation, farmer field schools, MVAC food assistance, shock responsive social protection, food assistance, agriculture insurance, livestock + Community Animal Health Workers (CAHW), Smallholder Agricultural Marketing Systems (SAMS)
Stepping up: *Households with land, labour, assets, and a capacity for food surplus and/or commercial activity that can 'step up' the livelihood ladder into more diverse and higher value agricultural activities.*	Access to inputs (input fairs and cash for inputs), crop diversification, conservation agriculture, community animal health worker support, VSLA graduation, post-harvest handling and value addition (PICS bags), sustainable livelihoods support
Stepping out: *Rural households that can productively 'step out' of agriculture, and into more productive sectors of the economy. This could be a local 'step out', finding better-paid employment in local farm activities, combined with existing agricultural activities, or investing in an SME. It can also be a 'migration step out' to take advantage of opportunities in peri-urban and urban areas.*	
Cross-cutting	Climate information and services, community based participatory planning, evacuation centres, disaster management systems support, government capacity building and systems support Support for inclusive ag businesses, insurance, sustainable fuel businesses; policy, advocacy and awareness building

Targeting of the crisis modifier: This fund is triggered if a national disaster occurs. The Malawi Vulnerability Assessment Committee (MVAC) has its own set of targeting methodologies (largely community-based) and assessments (including crop assessments, and nutrition screening) that support decision making for any shock response. The MVAC guides how BRACC scales up support in response to a major shock.

2.4 Resilience in BRACC

The BRACC partners define 'resilience' as the capacity to withstand and recover from shocks and stresses. Based on this definition, the 3As explanatory conceptual framework breaks resilience down into a set of inter-related capacities to anticipate, absorb, and/or adapt (the 3As) to climate extremes and disasters, and transformation:

- Absorptive capacity is the ability, using available skills and resources, to face and manage adverse conditions, emergencies or disasters;
- Anticipatory capacity is the ability to anticipate and reduce the impact of climate variability and extremes through preparedness and planning;
- Adaptive capacity is the ability to adapt to multiple, long-term and future risks, and also to learn and adjust after a disaster. It is the capacity to take deliberate and planned decisions to achieve a desired state even when conditions have changed or are about to change; and
- Transformation refers to improvements in the underlying drivers of vulnerability to shocks and stressors, and can occur when the 'rules of the game' are altered, for example when power dynamics, policies or regulations and/or the conditions of inequality are improved for people exposed to risk. Transformational approaches are fundamental to strengthening resilience, particularly at systems level.

The 3As framework forms the basis for the BRACC Theory of Change (ToC) and is the starting point for work previously conducted by BRACC components in formulating a resilience index and meeting reporting requirements for KPI4 under the International Climate Fund (ICF) criteria: number of people whose resilience has been improved as a result of the programme.

2.5 Theories of change: how the BRACC programme works

Intervention logic

The high-level objectives of the BRACC programme are captured in the Impact and higher-level outcome statements. At the impact level, BRACC's objective is to contribute to a reduction in extreme poverty and an end to the recurrent cycle of hunger and humanitarian assistance in Malawi. Achieving this impact requires complementary long-term investments and programmes that address the wider structural challenges in Malawi, including a weak economy that is failing to keep pace with population growth. The high-level outcome in support of achieving impact is the strengthened resilience of the targeted 300,000 poor and vulnerable households (around 1.7 million people) to withstand current and future weather and climate related shocks and stresses.

The expected BRACC outputs in support of these outcomes are:

1. Intensified and diversified agricultural production and improved nutrition for targeted vulnerable households
2. Enhanced and inclusive access to markets and the productive resources necessary to develop increased secure and predictable incomes for targeted households
3. Vulnerable households and communities in targeted areas have reduced exposure to drought and floods
4. Increased capacity of national, sub-national and non-state actors to prepare for, plan, monitor and respond to shocks.
5. A strengthened and more shock sensitive social protection system
6. Forest deforestation and degradation is reduced, and forest dependent communities have more sustainable livelihoods
7. More effective, coordinated and targeted, government and donor investments

2.6 BRACC Theory of Change

The FCDO Resilience framework, the global DFID BRACED programme, and learning from global evidence have all informed the approach and ToC. These highlight that resilience is a product of interlinked capacities to anticipate, absorb, and adapt to shocks and stresses, underpinned by measures which reduce exposure to shocks and the governance mechanisms, market systems, policies/regulations, infrastructure, community networks, and formal and informal social protection mechanisms that constitute the enabling environment necessary for systemic change and transformation. The programme interventions are therefore designed to: increase the adaptive, absorptive and anticipatory capacities of targeted households and communities, alongside work to contribute to transformative systems strengthening. The BRACC Theory of Change narrative, including assumptions, and diagram, along with the BRACC logframe, are in Appendix C BRACC and PROSPER Theories of Change.

The PROSPER programme, which forms the largest share of BRACC funding, developed a separate theory of change, facilitated by BRACC Hub in June 2020. PROSPER is a four-year programme focused on strengthening the resilience of poor and vulnerable households to withstand current and future weather and climate related shocks and stresses. A consortium of partners delivers different activities designed for households in different wealth categories (the 'hanging in', the 'stepping up', and the 'stepping out'). The programme interventions are designed to increase the adaptive, absorptive and anticipatory capacities of targeted households, and contribute to transformative systems strengthening.

Activities focus on: promoting more sustainable and climate smart agriculture and less-weather-dependent livelihoods; strengthening links to private sector partners and market systems; business and skills training; transferring assets and promoting cash savings and access to loans and other financial services, such as micro-insurance.

Delivering the components together is expected to result in improved resilience capacities, and reduced risk of shocks, at the household and community level, including: 1) Households being able to accumulate assets, access more diverse income streams, and improve their capacity to adapt to long-term climate changes; 2) reduced exposure of households and communities to drought and floods because natural resources are managed sustainably; and 3) households, communities and districts being better prepared for shocks and faster and better targeted responses when needed.

At the level of larger systems, these interventions are expected to result in:

- More efficient markets that facilitate access to inputs, technologies, information, and output markets in a manner that is more inclusive and more conducive to resilience-enhancing investments.
- Strengthened extension systems to mediate access to information, improving knowledge and directly supporting enhanced access to productive resources and changes in practices.
- Strengthened and improved financial systems, mediating access to financial services including credit and insurance.
- Strengthened shock-sensitive social protection systems and disaster risk reduction and response mechanisms.
- Strengthened and improved ecosystems working alongside strengthened and improved DRR planning and early warning systems so that households, communities and districts are better able to anticipate and cope with disasters.
- Policy change: Policy that is informed by current and future risk to support the Malawian government to engage actors with what resilience strengthening is needed, thereby supporting the shifts in context necessary to bring about adaptation and resilience to climate change.

The PROSPER TOC Diagram and narrative are in Appendix C BRACC and PROSPER Theories of Change.

3. Overview of the Evaluation

3.1 Evaluation Objectives

The original mid-term evaluation objectives were to:

1) Evaluate BRACC progress at the midline, after 2.5 years of implementation, against the theory of change, in order to assess the extent to which the objectives of the programme are likely to be met, how effective the programme has been so far in delivering planned outputs, as well as capturing any early outcomes from the implementation; and

2) Assess adaptive approaches within the programme, examining the degree to which the programme has been able to learn and 'course correct' given experiences and evidence to date.

This aligned with addressing EQ4b in the evaluation matrix (Appendix D Evaluation Matrix), drawing on quantitative data from the impact evaluation (IE) as well as the qualitative enquiry carried out for the process evaluation and ongoing quarterly beneficiary feedback interviews designed as part of an ongoing process evaluation to support adaptive programming in PROSPER (see Appendix A BRACC Hub Terms of Reference (separate document) and Appendix B Overview of BRACC Monitoring, Evaluation and Learning Framework).

The original mid-term was therefore designed to focus solely on the PROSPER programme, to address the relevance, effectiveness and, to a lesser extent given the timeframes, impact elements of the OECD Development Assistance Committee (DAC) criteria for evaluating development assistance. Thus the following was intended as the guiding question for the 2021 evaluation:

To what extent are the objectives likely to be achieved? How, why, for whom, in what contexts?

- How effective has the programme been in delivering its planned outputs?
- Did the programme learn from experience and adjust its level of investment to focus on the most successful activities?

Following the baseline[25], the objectives of the quantitative (IE) data collection were to:

A. Measure primary and secondary outcomes to enable estimation of the programme's impacts focused on:
   1. Did the BRACC programme increase household resilience by smoothing consumption following weather-related and other shocks? Did BRACC beneficiaries resort to fewer coping strategies that reduce assets or human capital?
   2. Did BRACC increase household food security? Were the effects of BRACC on household food security greater following significant climate or economic shocks?
   3. Did BRACC reduce the incidence of extreme poverty and the probability that households may be poor in the future?

B. Connect intervention effects to levels and changes in key individual and household characteristics to better understand causal pathways

3.2 Modifications to the Mid-Term Evaluation

As a result of the ODA cuts, significant changes were made to the BRACC programme, with the midline also marking the end of implementation by the NGO consortium under PROSPER and the funding to BRACC Hub for knowledge management support including MEAL activities.

In light of this, the evaluation team made modifications to the planned evaluation design set out in the MEAL framework (Appendix B Overview of BRACC Monitoring, Evaluation and Learning Framework). Starting with the evaluation matrix (Appendix D Evaluation Matrix), the evaluation questions were assessed for the extent to which it was likely they could be evidenced at midline, with an emphasis on emerging outcomes. This broadened the scope of the evaluation. In addition, the team hoped to address the gap caused by a lack of PROSPER annual survey in 2021 and quarterly beneficiary feedback interviews due to the funding cuts.

3.2.1 Design Modifications

In order to address additional evaluation questions and bridge the gap in M&E data, the evaluation activities were extended as follows:

1. The quantitative evaluation was originally designed as a randomized control trial (RCT) covering two of the PROSPER districts, Balaka and Phalombe, with random assignment to the treatment and control group at the village level. The treatment group was designed to be twice as large as needed, to allow for "mechanism experiments", in which the treatment group could be randomly assigned to different treatment approaches to compare impact of different delivery modalities. The evaluation was designed to use a panel data approach, with three rounds of data collection: a baseline, midline, and endline.

   In light of the early programme closure, the original RCT design was adapted in several ways. First, the midline data collection would serve as the final round of quantitative data collection in the evaluation. Second, as no mechanism experiments of interest to implementors were identified and conducted at the time of the midline, it was decided that for the midline survey, half of the baseline treatment sample would be randomly selected for inclusion. The other half of the sample would be dropped to enable resources to be used to collect data from communities targeted by PROSPER in the remaining two PROSPER districts, enabling the creation a dataset representative of programme participants in all four districts, replicating the approach of the PROSPER Annual Survey. This survey provided inputs for reporting on the PROSPER Resilience Index and KPI 4, but was left unfunded with the early closure of PROSPER activities. This Annual Survey data set also enables comparison of outcomes across all PROSPER districts. The questionnaire from the baseline survey was updated to include additional questions covering Annual Survey indicators. The final result was that the quantitative evaluation was expanded to include the original RCT impact evaluation, and an update of the PROSPER Annual Survey.

2. Quantitative Survey sample extended to include treatment households in Chikwawa and Mangochi; this was enabled by reducing oversampling in the Impact Evaluation sample in Balaka and Phalombe that was intended to allow for mechanism experiments, which were not implemented placeholder modifications to the quants design.

3. Addition of a round of qualitative data collection. This needed to be carried out concurrently with quantitative data collection, which was tied to the same period of data collection as the baseline (Sept-October 2021) to take account of seasonality, in order to complete by the 31st December 2021 deadline imposed by the funder. This meant it was not possible to design the qualitative component to be sequenced after the quantitative data collection and analysis in order to investigate specific quantitative results. The simultaneous data collection meant there was no opportunity to discuss and clarify discrepancies between quantitative and qualitative findings in the qualitative interviews because the quantitative results were not yet available when the interviews were undertaken. However, addition of a qualitative round of data collection did mean that the evaluation was able to address a much broader range of evaluation questions than would be possible in its absence.

4. Addition of Value for Money assessment

5. Broadening the scope of the midline to encompass African Parks and Modern Cooking for Healthy Forests (Component 4)

These are discussed in more detail in Section 4.

3.2.2 Evaluation Questions

Table 4 details the evaluation questions and subquestions the evaluation intended to address at midline.

Table 4: Modified Evaluation Matrix (summary)

Key: Normal text – aim to address*; italicised text – partial conclusions can be drawn*

Evaluation criteria OECD DAC	Evaluation Questions and subquestions	Data Sources
Impact	***EQ1.*** *To what extent did the programme contribute to strengthening climate resilience/adaptive capacity to shocks, taking into account a changing climate, at the household, [community and national] levels?* In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups)	Survey Qualitative Interviews
	EQ1a. *What difference has the programme made to the climate resilience and poverty reduction of participants at the individual/household level? For whom, Why? How? In what contexts?*	
	EQ1e. Which combinations of BRACC interventions are contributing most to building (food security and) resilience? In which locations/ contexts? For whom? [impact effectiveness, relevance]	

Relevance	**EQ2.** To what extent are the theory of change and intervention objectives of the programme responding to the current needs of the programme participants and stakeholders (household, community and national levels)?	Survey Qualitative Interviews Process Evaluation M&E data (Annual Survey)
	EQ2a. Did results delivered align with the results / changes anticipated in the Theory of Change in relation to building and strengthening resilience and climate change adaptation? How/in what ways? If not, in what ways/ why not? In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups).	
	EQ2b. *To what extent do the objectives of the programme respond to the needs of programme participants (household to national levels) given the current context?*	
Coherence	**EQ3.** How complementary are the programme interventions and how well do they fit with the interventions of other actors in the Malawian context?	Qualitative Interviews Process Evaluation VfM
	EQ3a. How well do the programme's interventions fit together, create synergies and coherence (internal coherence)? To what extent do projects within BRACC learn from and influence each other (internal coherence)?	
	EQ3b. To what extent does BRACC complement other programmes implemented by other development partners (external coherence)?	
Effectiveness	**EQ4.** To what extent has the programme achieved its objectives, and its results? How do the findings differ by participant type and location?	Survey Qualitative Interviews Process Evaluation
	EQ4a. How effective is the programme's implementation design and the execution of it? [effectiveness; process]	
	EQ4b. To what extent are the objectives likely to be achieved? How, why, for whom, in what contexts? [MTR Question]	
Efficiency	**EQ5.** Is the project being implemented in the most efficient way compared to alternatives?	VfM Process Evaluation
Sustainability	**EQ6.** *To what extent will the programme have transformational impact and bring about systems change?*	Survey Qualitative Interviews Process Evaluation
	EQ6a. *What evidence is there that the interventions and the mechanisms that support them have the potential to deliver 'amplified results' and/or 'transformational impact'? How, why, for whom, in what contexts? [sustainability]*	

3.3 Evaluation Framework

The overall BRACC programme evaluation framework follows a theory-based approach, evaluating along the pathways from programme activities to outcomes, set out in the Theory of Change (see Section 2.5).[26] The BRACC programme ToC provides a vision of where the BRACC programme expects to contribute to change, directly and indirectly. It therefore i) provided the basis for the development of the BRACC M&E framework and approach; ii) identifies multiple change pathways; and iii) forms the foundations of the development of research and evaluation plans. By mapping out the different components (1-5) of the BRACC programme, it illustrates a conceptual and logical progression of the changes the BRACC programme aims to influence if it is to be successful.

The theory of change identifies theories about how a project or programme is expected to work. The evaluation team used these to build explanations of why interventions may or may not work in practice, using a realist way of thinking to ask how and why change happens, for whom and in what contexts to guide the qualitative enquiry. This means specific attention is paid to how the context influences how and why change happens, including the ways in which people respond to a programme, based on the understanding that context crucially influences whether an intervention succeeds in activating a change process (often referred to as a 'mechanism') that will cause an outcome.[27]

3.4 Evaluation Management

The evaluation team comprised members of the BRACC Hub, including:

- Katharine Vincent (Team Leader),
- Jennifer Leavy (MEAL Lead),
- Elizabeth Venable (Technical Lead),
- Bright Sibale (Deputy Team Leader) and the team at Centre for Development Management in Malawi,
- Matthew McConnachie (Quantitative Data Analyst),
- Merlin Hanauer (Quantitative Data Analyst),
- Catherine Gould (Qualitative Data Analyst),

- Lena Weingärtner (Research Lead),
- Mackenzie Klema (Qualitative Data Analyst),
- Gulden Bayaz (Value for Money Lead),
- Nick Brooks (Resilience Measurement Researcher) and
- Ying-Syuan (Elaine) Huang (Programme Design Researcher), as well as a number of qualitative and quantitative data analysts.

The evaluation team consulted with stakeholders and end-users throughout the midline evaluation process, from design modifications through to consultation on 9th December 2021 on the preliminary findings and lessons with PROSPER implementers and a collaborative approach taken to framing recommendations. Further consultation and feedback was obtained via email. The draft report was shared with FCDO and BRACC implementers on 24th December 2021, and further refinements made. Any comments and disagreements are mentioned in the report, as are any differences in opinion among evaluators or among stakeholders consulted in the evaluation.

The evaluation team was generally in concurrence regarding the findings, particularly those related to household and community-level results of the PROSPER programme at each level of the theory of change, as there was evidence from multiple data sources and methods to drawn on, allowing triangulation. However, there were some areas where the evaluation team believed that the evidence was ambiguous, or that different conclusions could be drawn based on the findings.

Findings regarding the impact of systems level interventions, particularly those surrounding social protection, were one example. While there was some evidence that the crisis modifier improved both the functioning and results of social protection systems in Malawi, the short timeline and lack of rigorous quantitative methods make it difficult to determine with certainty whether the approach had a positive impact.

The evaluation team also believed that different conclusions could be drawn about the effectiveness, and cost effectiveness, of the PROSPER approach to targeting. The evaluation team largely agreed that targeting according to wealth level was successful at making it more likely that interventions were directed to households likely to be successful at them, but that it also resulted in fewer high-intensity interventions being delivered to the households in the ‘Hanging In’ wealth group. However, the evaluation team viewed the evidence as ambiguous with respect to whether this represented a cost-effective approach to promoting behaviour change and systems development in communities, or whether community resilience would have been more effectively addressed by providing more intensive bundles to the poorest group to address the barriers that make it more difficult to successfully participate in high-impact interventions like livestock pass-on, cash for inputs, or access to loans. Similarly, the team agreed that many interventions, including high impact interventions, often had low saturation in communities, but that there were positive spillover effects to non-participants; however, the team also agreed that there was insufficient evidence to determine whether the benefits of the spillovers were large enough to offset downsides such as feelings of unfairness in the community and potentially higher costs of spreading interventions over larger areas.

The evaluation team viewed these ambiguities as largely resulting from insufficient evidence around difficult-to-measure outcomes such as the size of spillovers, costs of different approaches, and differences in impact among different sub-groups of beneficiaries. The limitations of the data and evaluation approaches led the evaluation team to agree that it could not draw evidence-based conclusions in some of these areas

The final report will be shared with programme implementers who will also feedback findings to participants, wherever possible given that the programme has now ended for many.

The use and influence plan for the evaluation findings is in Appendix E Use and Influence Plan) which sets out a dissemination plan for the evaluation findings in order to maximise the value and impact of the evaluation findings in terms of sharing lessons learned for future resilience programming as well as for feeding back into potential adaptations to the UN consortium activities going forward.

The evaluation team was able to work freely and without interference. There were no conflicts of interest between the evaluation team and the wider programme, and information sources and their contributions were independent of parties with an interest in the evaluation. Data collection was carried out by the Centre for

Development Management, a Malawi-based consultancy who are part of BRACC Hub, with training support from BRACC Hub team members. All tools were tested, with quantitative tools as a panel survey tested at baseline and qualitative tools tested and, where necessary, revised during the training week in September 2021 directly prior to data collection.

4. Methods, Sampling and Analysis

4.1 Study Population and Setting

The BRACC programme is being implemented in the most vulnerable districts, communities and high priority catchments in the country. The data for the midline evaluation has been collected from across the programme and districts in which the programme is operating.

The impact evaluation survey sample collects data from treatment and control communities in two PROSPER districts, Balaka and Phalombe. At baseline, because some BRACC-related programming was already ongoing in two of the target districts (Chikwawa and Mangochi), it was agreed that the IFPRI baseline would be limited to 224 communities in the remaining two districts – Balaka and Phalombe. However, the quantitative survey coverage at midline was widened to cover Chikwawa and Mangochi, to allow for reporting on outcomes across all four districts and reporting on the Annual Survey indicators previously collected through a separate Annual Survey conducted by PROSPER.

Qualitative data collection took place in communities across the four PROSPER Districts Balaka, Phalombe, Chikwawa and Mangochi, in Nkhotakota and Ntchisi where African Parks is implemented, as well as with programme implementing staff across the programme.

4.2 The data

The Impact Evaluation (IE) is provided separately in (Appendix F). The data collection tools are in Appendix G (survey tool is in Appendix G1, and the protocols and topic guides for the qualitative data collection are in Appendix G2).

4.2.1 Quantitative Data

Quantitative data include two data sets, both drawn from one household survey utilising the same questionnaire:

i) **The BRACC RCT Impact Evaluation (IE) data set.** The RCT baseline included 3,136 households in 224 communities in Balaka and Phalombe, selected from a household listing exercise conducted as part of the baseline data collection process. As the RCT used a panel approach, the same households were targeted for the midline survey, with the exception of the dropped treatment households. (see Section 3.2). The final midline RCT Impact Evaluation survey included 1953 households in 152 communities in Balaka and Phalombe.

ii) **The PROSPER Annual Survey 2021 data set**. The Annual Survey data set included the treatment households from the RCT data set, plus households included in the 2020 Annual Survey in Chikwawa and Mangochi. The 2020 Annual Survey sample was randomly selected from the PROSPER wealth ranking exercise list. The final impact Annual Survey sample included 1967 households in all four PROSPER districts. The data from this dataset are used to construct a resilience index which can be used as an input to KPI 4 reporting, and for compare outcomes for different demographic subgroups across all four PROSPER districts.

The quantitative survey was carried out using electronic surveys. There were no major challenges during data collection. The tracking rate for the combined RCT and Annual Survey samples was about 92%, in line with expectations given the length of time between the baseline and midline, and limited household information, especially for the Annual Survey sample. Fewer than 1% of tracked households declined to consent to participate.

4.2.2 Qualitative Data

The qualitative evaluation focuses on how and why change has happened as a result of the BRACC programme,

for whom and in what context, capturing both anticipated and unanticipated changes as a result of the programme. Interviews were captured through tape recording and in note format by the Centre for Development Management team members and subsequently transcribed verbatim and (where relevant) translated into English (see Appendix H for a summary of interviews conducted) . The main tools used were:

i) **Semi-structured case study interviews with programme participants.** Interviews were conducted with participant households using semi-structured interview protocols to guide the discussion. There are two types of semi-structured interviews:

- Case Studies of positive and negative deviance, carried out with male and female programme participants of the BRACC programme (PROSPER; African Parks). These case studies purposively selected for interview people from the different targeting groups who have had particularly good outcomes from the programme, and those who have not had such good outcomes (or had not participated), with representatives of both male-headed and female-headed households, in order to maximise learning about how and why change happens and what key barriers to change might be. Criteria for selecting case studies are in Table 5.

  Table 5: Criteria for selecting positive and negative deviance interviews

Positive Deviance	**Negative Deviance**
1. Increased incomes	1. Participated but less successful relative to peers in terms of outcomes
2. Increased productivity	2. Resistant to participating/ non-participant
3. Increased assets	3. Participated in training etc but did something totally different in practice
4. Successful move into activities that are not weather dependent	4. Left the programme

- Gender and intra-household interviews with women participating in BRACC (PROSPER and African Parks) in households from the different wealth categories, as well as male- and female-headed, patrilineal and matrilineal, in order to capture the ways in which intrahousehold relationships and gendered social norms interact with and affect programme participation and potential outcomes.

ii) **Focus group discussions with male and female PROSPER programme participants involved in different interventions.** Focus group discussions (FGDs) were conducted at community level with up to 8 community members who have been exposed to the interventions in each group, with male and female participants grouped separately, using a focus group discussion guide. FGDs related to four specific BRACC intervention areas, with each focus group discussion exploring participant perceptions and experiences of one of each of the themes/ intervention areas.

- Insurance
- Cash for inputs
- Livestock pass-on
- Access to finance

iii) **Key informant interviews with purposively selected programme implementers, community members and district actors**. This included programme-level interviewees from across the BRACC consortium; District Level stakeholders; Community-level respondents; MCHF Implementers and, if possible, participants. Interviews were conducted using semi-structured interview guides to guide the discussion, with protocols are tailored for each stakeholder group and designed for an interview lasting up to 1 hour.

Sampling Approach: All interviewees were purposively sampled. Due to constraints in the time available to do the evaluation, PROSPER and African Parks staff assisted with identifying respondents that met the sampling criteria, providing an over-sample from which the interviewers randomly selected interviewees.

Table 6 details qualitative data collection.

Table 6: Details of the sample for qualitative data collection

Focus	Activity	District	Target number of interviews/ FGDs	Actual number of interviews/ FGDs	Actual number of respondents	Notes
Programme Outcomes (PROSPER, MCHF, AP) Spillover Effects	**District-level KII (SSI1)**	Phalombe Chikwawa Mangochi Balaka Nkhotakota	Up to 20	19	19	All respondents except 1 were male. Range of roles/offices represented
Programme design, Value for money, spillover effects, sustainability, crisis modifier	**Programme-level KII**	N/A	14	18	33	All but one of the PROSPER implementing partners, representatives of the lead organisations for other projects, FCDO and FGD with the Hub
Programme Outcomes (PROSPER, MCHF, AP)	**Community-level KII**	Phalombe Chikwawa Mangochi Balaka Nkhotakota	6	8	8	6 PROSPER KIIs. 1 African Parks KII. 1 MCHF KII
Insurance **Cash for inputs** **Livestock pass-on** **Access to finance**	**FGD**	Phalombe Chikwawa Mangochi Balaka	128	117	719	56% female, 44% male. 7% HI, 83% SU, 9% SO. Good spread across 4 focus areas
PROSPER Case Studies of Positive and Negative Deviance	**SSI3**	Phalombe Chikwawa Mangochi Balaka	48	37	37	61% female, 39% male. 52% positive, 48% negative. 43% FHH, 57% MHH. 28% HI, 43% SU, 26% SO
AP Case Studies of Positive and Negative deviance		Nkhotakota	12	9	9	
MCHF Case Studies of Positive and Negative deviance		1 or 2 PROSPER districts	12 or 24	0	0	No interviews as MCHF had not started implementing
Gender and intra-HH	**SSI2**	Phalombe Chikwawa Mangochi Balaka Nkhotakota	Maximum 60 HH	33	33	All female respondents. 58% FHH, 42% MHH. 42% younger, 58% older. 42% HI, 30% SU, 27% SO
TOTALS				**241**	**858**	

4.2.3 Secondary data

The evaluation also draws on 'secondary' data including the PROSPER annual survey 2020 and the process evaluation (PE) carried out in March 2021. The PE report presents a descriptive and analytical account of how the implementation of BRACC has played out, focusing on components 1 and 2 (PROSPER) with the aim of improving understanding of how and why BRACC is making a difference and to generate lessons for future

policy and practise. The PE focused on: evaluating how the BRACC programme has been implemented and how interventions have been operationalised; investigating how BRACC has interacted with and responded to the different contexts in which it has been implemented; examining the experience of PROSPER interventions among participants and how the programme supports people to strengthen their resilience. Given the stage of implementation at the time of the PE, with the PROSPER programme approaching mid-term, the Process Evaluation also began to explore whether and how PROSPER activities are forming the 'stepping stones' or 'building blocks' towards adaptation and resilience strengthening.

4.3 Analysis and Synthesis approach

4.3.1 Coding of qualitative data

The qualitative data was coded thematically, with codes developed deductively from the evaluation questions and added inductively as the analysis progressed, using qualitative data analysis software MAXQDA. The data were coded by multiple evaluation team members using defined codes, with the MEAL lead 'double-coding' a subset of transcripts, and checking across the all transcripts to ensure consistency. In line with the 'realist lens' within the overall theory-based approach to the evaluation, codes were included for contextual factors and barriers and enablers to encompass implementation factors (the way the programme does things) and 'mechanisms'.

4.3.2 Analysis

The RCT Impact Evaluation data the predominate quantitative data source for this evaluation, and analysis of these data are used to address learning questions related to programme impact on activity participation, adoption of practices and technologies, and a range of household-level outcomes. Impact evaluation analysis uses several approaches. The first approach entails estimating Intention to Treat (ITT) effects, by comparing outcomes for the treatment and control group. Analysis of Covariance (ANCOVA) is used to increase the efficiency of the estimates. The second approach entails estimating impact for treatment on treated or "complier" households. This is done by comparing households in the treatment group who participated in activities or adopted practices to households in the control group who did not, controlling for confounding variables.

The Annual Survey data are used to construct a resilience index which can be used as an input to KPI 4 reporting, and for compare outcomes for different demographic subgroups across all four PROSPER districts. Annual Survey data were analysed by producing summary statistics for key indicators, disaggregated by district, self-reported wealth group, and demographic categories: female-headed households, youth and elderly-headed households, and households with a member with a disability. In addition, multivariate regression analysis was used to control for correlations between different demographic factors, to better understand what accounts for differences in outcomes between demographic groups.

Qualitative data has been analysed thematically using qualitative data analysis software MAXQDA, along the themes set out in the coding system to address the evaluation questions. Thematic analysis involves identifying, examining, and recording patterns (or 'themes') within the data (Braun and Clarke 2006).

The qualitative and quantitative findings have been combined, integrated and synthesised, triangulating across data sources, taking a meta-narrative approach[28].

4.4 Quality and strength of qualitative evidence

Quality and strength of the qualitative evidence is based on a combination of strength of evidence that an outcome happened, the degree to which evidence for how and why change happened explains those outcomes. The contribution rating captures the extent to which the BRACC programme has made a contribution to outcomes (Table 7).

Table 7: Examples of strength of evidence and contribution ratings

Strength of evidence for outcomes and change pathways	Contribution Rating
No evidence: There is not sufficient evidence to make a judgement	**None: No evidence that the programme or intervention made any contribution**
Weak: 'Anecdotal' qualitative evidence only e.g. reported by fewer than 5 individuals • Evidence comes from a small number of sources with limited triangulation; and/or • There are major concerns that the position, knowledge, analytical capacity, reflexivity and potential biases of primary informants lower the reliability of evidence; and/or • There are contradictory insights into what is happening within the broader context.	**Low: Evidence that programme or intervention made some contribution**
Partial/emerging: Some qualitative evidence (between 5 and 10 reports) supported by at least one district-level insight	
Medium: More than 10 reports, confirmed by M&E data on progress, supported by district-level insights Confidence is reduced by: • Shortcomings with regard to triangulation; and/or • Concerns that the position, knowledge, analytical capacity, reflexivity and potential biases of primary informants lower the reliability of evidence; and/or • What we know about what is happening within the broader context	**Moderate: Evidence that programme or intervention made an important contribution**
Strong: multiple reports, confirmed by M&E data on progress, supported by multiple district-level insights, confirmed by quantitative evaluation data • Based on a good degree of triangulation: i) within interviews, ii) across stakeholders and types of stakeholders and/or iii) across data sources; • Taking into account the position, knowledge, analytical capacity, reflexivity and potential biases of primary informants; and • Also taking into account what we know about the broader context and other causal factors.	**High: Evidence that programme or intervention made a crucial contribution**

4.5 Research Ethics and Safeguarding

The evaluation approach was guided by the Development Assistance Committee principles, by FCDO (DFID) Evaluation Policy and ethics principles, and by NIRAS-LTS' Core Values and Ethics Statement and the Centre for Development Management's Research Ethics Policy. DFID's ethics standards set out what is required for the ethical conduct of research, monitoring and evaluation activities. They are aligned with the four ethics principles:

• Seek to maximise benefit and minimise harm ("do no harm")

• Respect people's rights and dignity.

• Act with honesty, competence and accountability.

• Deliver work of integrity and merit.

The planning and execution of data collection and analysis reflected active consideration of these principles, as outlined in the evaluation plan, which met the requirements of and received ethical clearance [on 24th August 2021] from the Malawi National Committee on Research in the Social Sciences and Humanities (P/07/21/591).

4.5.1 Data collection

The ethics principles were translated into a series of guidelines that informed the practice of evaluators and enumerators during the data collection, analysis and reporting, namely:

1. All participants in the BRACC programme evaluation quantitative and qualitative research and studies were given the choice to take part voluntarily, free of coercion or influence; meaning that a customised informed

consent statement was read out and option highlighted to not participate or withdraw at any time.

2. Evaluators and enumerators worked always to minimise potential harm to participants, enabled by appropriate ethics training (an 8-hour ethics training session for each evaluator, including in informed consent, and anonymity in collected, stored and published data).
3. Participants were given appropriate information about the purpose, methods and intended uses of the evaluation, including the opportunity to ask additional questions both at the time or later (with the provision of a contact phone number).
4. Participants were given the right to withdraw from the evaluation at any time (and have any already-collected data removed) without fear of penalty or coercion to continue, as well as appropriate opportunities at the start to choose to not participate
5. Confidentiality, privacy and anonymity were respected at all times (see also data storage protocol below), with clear communication on any limits to confidentiality (for example in the case of programme staff the small sample and specific roles meant that a process of elimination may mean that readers can infer their identity).
6. All evaluators applied and abided by principles of accountability and transparency, including through progress reports to FCDO and BRACC implementing staff.

In addition to the Centre for Development Management's standard research ethics training, survey enumerators and qualitative researchers were trained extensively on the ethics of data collection by senior research staff in the BRACC Hub team, including consideration of gender and power relations in order to ensure sensitive inclusion and to minimise non-sampling errors. This was particularly important for exploring gender and intrahousehold dynamics, where interviews with women were conducted by experienced female qualitative researchers trained in dealing with potentially sensitive subject matter. Inclusion was an explicit focus of evaluation design and sampling approaches, and inclusion of participants respected concerns around human rights, gender, age, ethnicity, disability, caste, religion, geographic location, ability, socio-economic status and hard-to-reach groups.

4.5.2 Quality assurance

A quality assurance process was applied. This involved a week-long training of evaluators and enumerators in the survey and interview protocols and probing techniques to ensure appropriateness and relevance of answers, as well as consistency within the team. There were also in-built mechanisms in the questionnaire and checklists to cross-check. All data collection (quantitative and qualitative) was supervised by field supervisors, who also applied random checks and conducted daily review meetings with the team every evening to address any questions or emerging issues.

4.5.3 Data management

Data for the quantitative aspects of the study were captured electronically using tablets. For household and other quantitative data collection tools, the study instruments were converted into standard survey software (ODK). All questions were coded with skip patterns and locks for questions that cannot be skipped to ensure completeness. Responses were entered onto tablets by trained enumerators and uploaded in the field into a secure cloud-based database periodically. Completed survey data were checked and cleaned in Lilongwe after the field work.

Data from the FGDs and KIIs were recorded by manual note taking and audio recording. The note-takers were also translators. Transcripts of the discussions and the notes were generated after the field work and translated back into English. The responses were coded and categorized into emerging themes aligned to the outcomes, barrier and enablers that were being explored. All data is securely stored in a password-protected online space in accordance with Malawian, UK and European Data Protection Law and only accessible to two named BRACC Hub team members as specified in the ethical clearance application. A separate data set was created by recoding personally identifying information for wider use in analysis by the evaluation team.

4.6 Limitations, risks and mitigation

The process evaluation faced the following risks and limitations, mitigated where relevant and possible by the evaluation team:

Risk	Mitigation
Covid-19 impedes data collection	Interviews with programme staff all took place remotely.
Data collection puts evaluators and beneficiaries at risk of Covid-19	Interviews with programme staff all took place remotely. Field data collection with beneficiaries was planned to align with national Covid-19 regulations, with all team members wearing face coverings, washing hands before interactions, conducting interviews/surveys outside. Beneficiaries were provided with face coverings and sanitisers/soap. Names and contact details for all participants were also kept for one month after the interactions to enable public health authorities to conduct contact tracing in case any evaluators/research assistants or participants became ill with Covid-19. Interviews with programme staff were conducted remotely.
Bias in qualitative sample due to reliance on implementing partners to identify interviewees meeting sampling criteria	The evaluation team had already been working with BRACC implementers for 18 months in a MEAL support role where the design and emphasis of MEAL activities was on learning and reflexivity. The evaluation team are therefore confident that it is in this spirit that the implementers correctly identified, for example, potential case studies of negative deviance, as maximising learning was understood and agreed to be the priority for the evaluation.

The main potential limitations to the evaluation are:

- **Impact Evaluation Sample Size and Methodology.**

  The RCT impact evaluation was designed to detect differences between the treatment and control group equal to about 0.18 standard deviations. With PROSPER designed to reach about 80 percent of households in targeted communities with bundles of interventions, this was viewed as being a reasonable minimum detectable effect for the majority of outcome indicators, although it was expected that for some indicators with high variance, such as crop yields, the sample size would have low power to detect impact for specific sub-groups such as female headed households.

  However, the quantitative survey found lower than expected participation in PROSPER activities for many interventions; in addition, a number of control community respondents reported participating in PROSPER interventions, including interventions unique to PROSPER. The smaller-than-expected difference in participation between treatment and control had implications for the originally planned estimation approach (see the Impact Evaluation in separate Appendix F),, as it reduced the likelihood of finding significant differences in outcomes between the treatment and control groups as a whole, and reduced the strength of assignment to the treatment group as an instrument for participation; instruments with low strength can result in biased estimates of impact. Further, because of high participation rates in the control group, , the estimation approach was also less likely to provide unbiased estimates of the impact of participation for the average participant, which was a question of interest for the evaluation.

  To address this, the approach for estimating impact for participants was adapted to utilize a quasi-experimental approach that looked at the impact of programme participation in specific interventions and adoption of specific technologies and practices on different outcomes of interest.

  One additional weakness of this approach is that it is difficult to disentangle the impact caused by participation in a particular intervention from impact caused by other interventions, given that participation in PROSPER activities is correlated. This would have been a shortcoming of the original approach as well, as in order to be an unbiased estimate of the impact of participation, the treatment assignment must affect

the outcome of interest only through participation in that particular intervention, a condition that does not hold when looking at different components of participation within the PROSPER programme. To mitigate this weakness, the evaluation synthesis relies on complementary qualitative data to add strength to the evidence of impact through specific causal pathways related to participation in specific activities or adoption of specific practices or technologies.

- **Challenges in applying an RCT to a complex, adaptive programme.**

  The complex nature of the PROSPER programme design, in the way that it is built up from a number of components/interventions designed to work interdependently, means that there are multiple intervention components. This presents challenges in evaluating the contributions of individual interventions using an RCT approach, unless the RCT design includes a large number of treatment arms. As the treatments can vary widely among participants it is impractical to disentangle or isolate the effects on outcomes of many individual activities. While RCTs can be powerful for estimating programme interaction effects, doing so for more than a few interventions normally requires very large sample sizes; in addition, it requires strict adherence with randomization within the treatment group, which can limit adaptive management and flexibility in targeting approaches that could improve intervention outcomes. The evaluation mitigates this through the mixed methods approach which allows triangulation of the quantitative with the qualitative data as well as using the qualitative enquiry to explore important factors that explain how and why change happens in the programme that may not be related to the 'treatment'. The qualitative data also potentially captures any adaptive evolution (complexity) of the programme and emerging feedback loops in the theory of change.

- **Focus on PROSPER.**

  As outlined above, there has always been an inherent tension between PROSPER and BRACC, given that the former makes up the biggest proportion of the programme in terms of budget, consortium size of implementing partners, and the range of activities that it is implementing. This is exacerbated by the programme timeline which meant that PROSPER commenced implementation before the other components, and some time before the commencement of the BRACC Hub, which had the role of programme-wide coordination and value addition. Additionally the BRACC Hub was tasked with providing adaptive management support to PROSPER rather than to the other components of the programme. It is therefore not surprising that the evaluation has a disproportionate focus on PROSPER. This was exacerbated by the early close of the GIZ component and the fact that MCHF had not yet commenced implementation, which meant that African Parks was the only other field-based component to include. To mitigate this, the evaluation follows the programme-wide theory of change and evaluation matrix, whilst PROSPER-specific findings are available as part of a set of accompanying briefs.

- **Timing of the evaluation.**

  The evaluation took place very shortly after the implications of the 2021/21 ODA budget cuts had been confirmed for the programme. Whilst African Parks had been due to come to an end anyway after a no-cost extension, the immediate end of the NGO consortium in PROSPER meant that a large number of survey participants and interviewees had only recently been informed that the activities in which they were participating were coming to an end two years early. The evaluator team did come across a lot of dissatisfaction within the sample. However, other than some explanations in the qualitative data collection about the implications of the cuts for sustainability and maintenance of gains made, it does not seem that this dissatisfaction unduly influenced the results. Among programme implementing staff there remained great willingness from across the NGO and UN consortia of PROSPER, as well as GIZ, African Parks and MCHF to participate in interviews, even though the timing meant that the PROSPER NGO consortium, GIZ and African Parks were no longer under implementation at the time of data collection.

- **Concurrent quantitative and qualitative data collection.**

  Changes to the programme meant that the sequencing of quantitative then qualitative data collection could not happen, and instead both quantitative (August-October 2021) and qualitative (planned for September 2022) data were collected simultaneously. This limits the opportunity for using the period of qualitative data collection to further interrogate and explain findings of the quantitative data collection.

However, the two different types of data were always intended to serve different purposes and different components of the various evaluation questions.

- **Communication of evaluation report findings.**

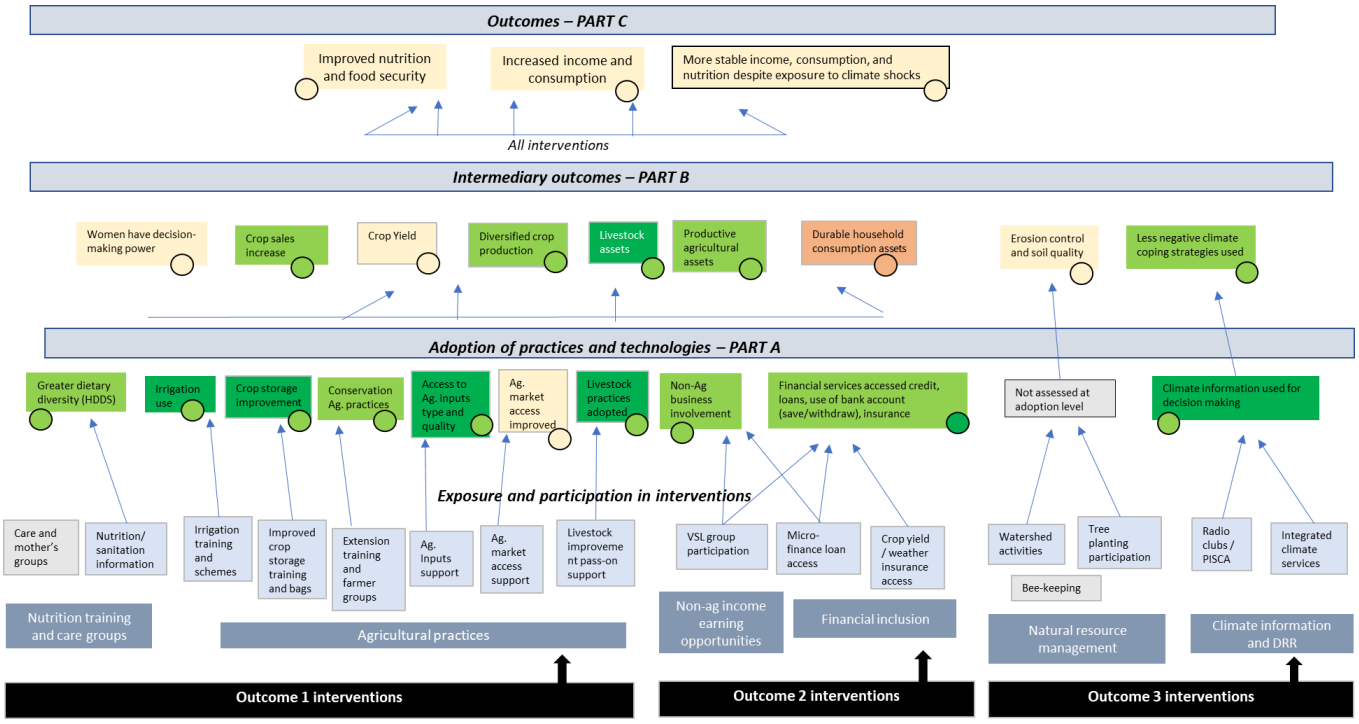
  The use and influence plan (Appendix E Use and Influence Plan) details how the findings of the evaluation report will be communicated to internal and external audiences. There was no time in the curtailed period for programming and evaluation activities to directly feedback findings to stakeholders at the community level, although some presentations during a no-costed extension period attempt to fill this gap in communication. However, the fact that this is a midline conducted at what is the endline for the majority of the projects muddies the water with regard to the nature of communications. Had this been an endline, for example, opinions would have been sought from people outside of the programme – for example government staff at national and district level. Similarly there would be a plan to feed back findings to programme participants. However, since this is a midline taking place amid significant cuts to the programme, there are no longer implementing partner staff available, nor does the BRACC Hub have time left on its contract to ensure this grassroots dissemination takes place. Additionally, the disappointment among participants about the closure of the programme (that was extensively communicated to the survey team and interviewers during data collection) implied they would be less engaged with the findings. The use and influence plan instead focuses on government staff and other implementers involved in resilience and adaptation programming with the intention that the learnings can be applied in other initiatives going forwards.

Part 2: Findings

This section presents the main findings of the midline evaluation synthesis. It is **structured to follow the logical progression of the theory of change, from programme implementation through to outcomes and impact (**Figure 3**).** Section 5 considers implementation processes in BRACC including coherence, effectiveness and efficiency. Section 6 looks at exposure to the interventions by both programme participants and non-participants, before moving on in section 7 to adoption and outputs achieved by the programme. Section 8 describes outcomes and impact, considering both what the programme has achieved and how and why change happened the way it did. The theory of change and some of the resilience outcomes achieved are discussed in Section 9.

Figure 3: Impact evaluation findings linked to the Theory of Change

(Boxes represent impacts for households directly participating in the interventions. Circles indicate number of households reached within the treatment villages (scale of impact).
Yellow = mixed/unclear results, Light green = medium impact, Dark green = high impact.)



5. Process: How the programme has been implemented

Summary

The programme design of BRACC, with different components implemented by various consortia and organisations, enabled capitalising on the contextual knowledge and networks of the implementing partners whilst effectively delivering the layered interventions.

Internally the different start dates of projects, and the need for the UN and NGO consortia of PROSPER to merge their proposals at short notice, meant that coordination was not optimised from the beginning. However, within PROSPER proactive coordinators and standard operating procedures supported within-

consortium learning and leveraging comparative advantage of different partners. Ideally the Hub role would be available from the start to support programme-wide coordination.

In terms of implementation, partnership with the Government of Malawi was integral to design and worked well at district level, although national level coordination was more problematic. The combination of elections and then Covid meant it did not happen as intended with PROSPER and challenges with it led to early end of GIZ). Implementation design at community level was very participatory with inclusive exercises to identify wealth categories and then target the interventions, the selection of which was linked to community planning processes that had identified grassroots needs and priorities. Good efficiencies were achieved internally at input level (although less so at output level), and this was catalysed by Covid. However cross-organisation procurement efficiencies were suboptimal, and the financial reporting requirements were at odds with the commitment to adaptive management.

5.1 Coherence: how well the interventions fit

EQ3. How complementary are the programme interventions and how well do they fit with the interventions of other actors in the Malawian context?

EQ3 a. How well do the programme's interventions fit together, create synergies and coherence (internal coherence)?

- *To what extent do projects within BRACC learn from and influence each other (internal coherence)?*

Interviewees from across a range of respondent types provided largely positively feedback on synergies between interventions, noting that they worked well together to improve resilience among programme participants. A concerted effort is made within the projects and across the programme to link up activities to maximise resilience-strengthening and create positive feedback loops. This was enabled by knowledge sharing (facilitated within PROSPER through the national and district level coordinators), the creation of project standard operating procedures and referrals where necessary, capitalising on each organisation's comparative advantage and experience in particular areas.

> *"we aligned the watersheds management technical approaches. So basically we adopted the procedures that WFP was using so that we didn't have different techniques and different approaches being applied." -KII BRACC Programme Staff*

Coherence between interventions is crucial as participants can be targeted by so many activities as part of the layering of interventions, which often need to be sequenced in particular ways. It is also critical to make additional effort to ensure that the programme participants understand the reasoning behind the layering and the potential for value-add, as there is a risk of seeing them as independent and thus missing this crucial opportunity for complementary resilience-building.

EQ3 b. To what extent does BRACC complement other programmes implemented by other development partners (external coherence)?

- *Was the evidence generated relevant to other programmes and policies in Malawi and elsewhere?*
- *Has the programme enhanced coordination with other donor and Government programmes? [VfM]*

District level coordination has been a key part of the BRACC programme, where district level (government and community governance) mechanisms, such as the District Agriculture and Extension Committee (DAECs) and Area and Village Stakeholder Panels, are used to ensure harmonisation of activities and to avoid inadvertent duplication.

> *"We make sure that we are following the standards and we are avoiding the duplication of activities. So if another NGO is working on another activity the other NGO has to make sure is not doing the similar activity. And also the coordination part has been also encouraged the community participants, have to do some ownership on the activities whereby to avoid the concept of giving allowances to the communities because whatever we are doing on the ground that's their development. That is another*

advantage of the coordination meetings which we have been doing." KII PROSPER IP Phalombe

The level of coordination between BRACC implementing partners and external partners outside of district level is more variable. Coordination can obviously be time and effort-intensive and thus tends to be strategically pursued where there are potential returns in terms of the benefits of working together. The extent of external engagement, and in what, often reflects each organisation's role but leads to differences in scope for influencing national discourse and learning in the area of resilience. For example, UN agencies, which serve as donors in other contexts, are able to participate in donor coordination groups, whereas NGO partners generally do not. The pause in government technical working group committee meetings in 2020 due to the government transition has also resulted in fewer opportunities to touch base with other projects working in the resilience space, other than on an ad hoc basis and reflecting pre-existing partnerships. The BRACC Hub was intended to play this role at programme level and facilitated development of a programme-wide policy and advocacy strategy but was not able to implement this due to funding cuts.

5.2 Effectiveness of design and implementation

EQ 4 a. How effective is the programme's implementation design and the execution of it? [effectiveness; process]:

- *Has this programme been successful in changing ways of working among Consortium partners?*
- *How can an external hub add most value to a complex programme?*
  - *What functions or capacities in the Hub did people find most useful?*
  - *How should "hub" type activities be delineated between the Hub and other partners*

The programme design for BRACC was complex – a series of projects each targeting a different component of the multiple layers required to build resilience, and then a knowledge and policy hub with a role for programme level coordination, monitoring, evaluation and learning, policy advocacy and knowledge management. Three of the five components – PROSPER, MCHF and the BRACC Hub – were implemented by consortia of varying complexity. The most complex is PROSPER – comprising a UN and NGO consortium that included private sector partners which also has unusual origins as the UN and NGO/private sector consortia had originally submitted separate proposals and were requested to merge by the funder. The advantages of the final implementing partner set up is that all had experience of implementing similar initiatives in Malawi and were thus familiar with the context and government, and able to commence rapidly. Transaction costs of coordination tend to increase with size and the multiple partners within BRACC brought together many different organisational cultures.

"The key to getting [a] large programme design right is making sure that there is plenty of flexibility and loose connections so that we [implementing partners] are able to achieve our individual commitments whilst at the same time, we are able to learn from and share with each other." KII BRACC Programme staff

Despite the challenging circumstances of the start to PROSPER, the working relationships established within the UN and NGO consortia created a sound foundation. The cementing of further relationships was aided by the role of the coordinators who played an integral role in coordinating and maximising synergies between activities and reducing the potential scope for duplication or inefficiency. They were almost universally said to be key in ensuring timely delivery and decision making through bringing partners together and calling meetings when needed; or compiling reports for submission; or coordinating with FCDO programme management. PROSPER established standard operating procedures, information exchange, partnerships with district government officials, and adopted products designed by others in the consortium. Many implementing partners also reported that they have learnt from others in areas of their comparative advantage, to develop interventions that were comprehensive and more appropriate for their participants. According to an implementing partner, for example, integrating the issues/perspectives of social protection, gender and

inclusion into their conventional microfinance project can be seen to be transformative, as the result ensures the long-term safety and wellbeing of the populations in Malawi.

Whilst relationships and coordination within project consortia were productive and constructive, there was little collaboration between the projects outside of periodic meetings. The Hub was intended to support cross-project coordination but the later start relative to other implementing partners was thought by many to impede this, as the projects were up and running by then and so the window of opportunity for setting up optimal cross-project linkages had passed. The changing start times also created some challenges in terms of identity, as implementing partner consortia (particularly PROSPER) forged their own identity and were then encouraged to consider the programme identity. In the case of PROSPER, which constituted a significant portion of the programme in terms of resources and activities, this meant that it was perceived as 'putting a BRACC identity on what was mostly PROSPER'[2]. A number of PROSPER actors admitted that while there was not a lot of interaction with BRACC partners outside of PROSPER, had there been sufficient time on the programme, they could potentially have more opportunities for this to happen, and that the BRACC Hub could have played this role.

More information on programme design is available in the Programme Design brief[29].

- *Targeting – Is PROSPER targeting the right people?*

There were two challenges with applying the NRS-aligned wealth category targeting approach. First, the Unified Beneficiary Register (UBR) that had been intended to be used to identify participants was not operational. In Balaka there was a nascent UBR, where it was adapted for to identify 'hanging in' (HI) households, and in Mangochi and Chikwawa it was possible to build on targeting already done by World Food Programme (WFP) for the preceding Food For Assets programme. The NGO consortium of PROSPER had to adapt community wealth ranking for targeting SU and SO, which was done through an inclusive but time-consuming process of community categorisation followed by participant selection. Participant selection in some cases built on government criteria (e.g. for nutrition activities) or past experience (e.g. for village savings and loans (VSLA)). In-keeping with PROSPER's Gender and Social Inclusion (GESI) Strategy there were proactive attempts to include women, who were particularly targeted for VSLA and asset-transfer activities based on evidence that women tend to spend cash for whole household benefit. Since labour capacity was a prerequisite which may exclude the elderly or disabled, staff could register younger and able-bodied individuals with the same household with the intention that the benefits would accrue to the household – noting that for elderly people who did not have a working age adult they would be eligible for other interventions, such as the lean season response.

> *"Let us use the example, let's say a person cannot provide labour that person obviously cannot be part of 'Food for Assets' unless maybe for example you have a grandfather or grandmother and the grandmother lives maybe with someone who is around maybe 20s or 30s we encourage to register that person so that this one in turn can look after that grandmother or grandfather because the grandmother or the grandfather cannot work so have someone who can provide labour" - KII BRACC Programme staff*

This approach ran the risk of bringing in some subjectivity and lack of comparability from one place to another. Although there were one or two mentions of inclusion errors, the majority of interviews showed that targeting was broadly thought to be correct. Second, with poverty targeting prevalent in Malawi and well understood, including at community level, there had to be sensitisation and awareness raising at district, area, group village and community level, as well as among staff, to explain the difference.

Further challenges were encountered when the beneficiary profiles were set. First, it led to an unexpected distribution of participants, with far more people categorised as 'stepping up' (SU) than 'hanging in' (HI) and 'stepping out' (SO). This had impacts for implementation because it did not match the intended budget and workplan, and so some of the SU participants were reclassified. Second, the design of the project was such that the UN consortium (targeting HI) and the NGO consortium (targeting SU and SO) are not all targeting in the same communities, which has implications intra-community levels of resilience. Underlying that, there is the

[2] KII, September 2021.

recognition that the divide between the groups is often a false distinction (particularly SU and SO) and that they are very dynamic over time because households are constantly navigating very fluid circumstances.

> *"They are not allowing community leaders to choose beneficiaries but allow the community members to choose beneficiaries. This is ensuring that beneficiary targeting for the PROSPER project is done properly and effectively." PE SSI, HI, Male, PROSPER, Chikwawa*

5.3 Efficiency in implementation

EQ 5. Is the project being implemented in the most efficient way compared to alternatives? [Efficiency]

- *What unanticipated, positive or negative, enablers or constraints has the project encountered?*
- *What has been changed or adapted in terms of intervention design and why?*
- *Are activities cost-efficient?*
- *Are objectives being achieved on time?*
- *What is the VfM of combining this number of partners under the same programme?*
- *What is the VfM/effectiveness of combining interventions for beneficiaries and having interventions targeting different scales?*

Covid 19 posed a significant challenge to programme implementation, with the effect partly contingent upon what point each project was at in their implementation period. MCHF and the BRACC Hub were just commencing activities, and so had to focus on activities that required less-in person interaction, and work online wherever possible. For the climate-resilience livelihoods component run by PROSPER, as a result of adaptations to delivery models, only stalled activities temporarily. Interventions continued in the field with prevention and mitigation measures in place (including limits on numbers and hand washing and sanitation stations). African Parks staff mentioned changing their campaigning methods, and using radio and TV broadcasting instead of in-person and in the field meetings. Of the interventions, VSLA groups were particularly affected by reduced frequency of group meetings and lower savings levels related to reduced ability to continue their livelihood activities. Covid also led to supply chain issues in Malawi, which particularly affected UNDP among the implementing partners, as they were leading on the construction of the flood evacuation centres. Further, cement prices went up more than they had planned in budget, and the price escalation for other inputs was beyond their inflation estimates[3]. It was reported that they had to mitigate this by using own resources to fill the gaps. Those organisations with larger budgets and/or access to other resources, such as UNDP, had more flexibility to "Covid-proof" than those with small grants, such as African Parks. The GIZ-led component experienced difficulties making Covid adjustments, as their work depended significantly on meetings with Government counterparts or decisions to be taken by them. Understandably, a different set of priorities had overtaken the Government agenda now, which meant that the GIZ work was stalled and ultimately so fundamentally affected that it led to the termination of the MoU between GIZ and FCDO.

Prior to Covid, adaptations in the early stages of the programme were more tactical (on improving means of delivery), rather than strategic (changing 'what' the programme is doing)[4]. However, notable strategic adaptations were the cash for inputs model and the use of triggers for the crisis modifier. Cash for inputs reflected recognition of the benefits of cash in terms of providing flexibility and not creating the market distortions that arise from voucher based agricultural input fairs. Despite some hesitations from district staff and project staff, it was widely lauded by participants as positive and an enabler of resilience-building. In the case of the crisis modifier, whose aim was to protect resilience gains in the face of environmental shocks, it had been the intention of FCDO Malawi to put in place more objective and transparent triggers (such as satellite-based data) but this did not work due to time limitations. They then worked with the other donors of WFP, and

[3] Programme KIIs, August-October 2021.
[4] BRACC Annual Review, December 2020 Update, p.3.

were largely led by MVAC process to trigger the lean season response. The Crisis Modifier Funds were used twice during BRACC implementation (Box 1).

Box 1: Crisis Modifier

One of the key components of the BRACC programme design is the 'crisis modifier'. Crisis modifiers are mechanisms in longer-term development or resilience programmes that allow for the diversion of funds, or the allocation of earmarked funds, to support crisis response. Under BRACC, the main purpose of the crisis modifier is "to respond to predictable and seasonal food insecurity in BRACC districts over the life of the programme (2018-2023).[30]"

Between the start of the BRACC implementation in late 2018 and the time of the midline evaluation in the second half of 2021, the programme's crisis modifier was activated twice to support the Government of Malawi's lean season response in BRACC districts through the PROSPER UN consortium. In 2019/20, the mechanism released about GBP 3.9 million, while it made available GBP 4.5 million in 2020/21. Even though in theory the crisis modifier allocation process also allows for the mechanism to fund a response to certain extraordinary slow-onset events and rapid-onset emergencies, this has not (yet) happened in practice.

The midline evaluation shows that programme funders and implementers in the PROSPER UN consortium value the crisis modifier as a way to increase the reliability and efficiency in funding the response to regular, predictable slow onset food insecurity crises. The fact that crisis modifier funding was used to support a larger lean season response at district level in coordination with the Government of Malawi and other partners – thus supporting government systems and economies of scale as opposed to implementing smaller, separate responses through alternative channels – contributed to this perceived efficiency.

The lean season response overall in 2019/20 was found to improve food security outcomes of beneficiaries[31]. However, from an evaluation perspective, the level of integration of the response makes it difficult to isolate the impact of the BRACC crisis modifier, and it remains unclear to what extent the crisis modifier managed to reach and protect the resilience gains of households participating in other BRACC activities. Strengthening national social protection systems (including through other components of BRACC, alongside the crisis modifier) has been critical in deepening the linkages and integration of the humanitarian response within government-led shock sensitive social protection.

More information on the crisis modifier will be available in the Crisis Modifier brief[32].

In terms of cost efficiency, the fact that the Value for Money (VfM) Strategy was never implemented due to impending budget cuts impedes the data availability for cost efficiency analyses of programme costs and outputs. Fund utilisation was good overall, at 100.9% in December 2020 as per the annual review (Table 8). In terms of programme delivery, the quantity of staff costs, programme activities and indirect costs varied across the programme. The Concern-led consortium had the lowest indirect costs as proportion of total spending, at 5%, whilst the overall range was 5%-14.8% among BRACC partners whose statements were available[5]. This represents the lower end of the range among similar projects and organisations in international development. Staff costs and direct costs are less directly comparable.

Table 8: BRACC Fund utilisation as at September 2021

BRACC Component	***Original Budget (£)***	***Spend to Date (Sept 2021)***	***Remarks***
UN+Lean Season Response	37,100,100	29,972,072	The funding will continue
Concern-led Consortium	25,650,000	13,983,205	The funding was cut as at August 2021
GIZ	5,000,000	2,691,842	MoU was terminated as at July 2021

[5] African Parks' financial statements did not itemise any non-project attributable costs, and whether this was included in some other way could not be clarified.

African Parks	1,000,000	850,568	The Accountable Grant was closed as at April 2021
Modern Cooking for Healthy Forests	4,000,000	571,432	Unknown whether this will continue with UK funding (US funding continues)
BRACC Hub (LTS Consortium)	5,753,926	544,393	The funding for the Hub was cut, and evaluation activities will end by Jan 2022

Source: FCDO Malawi, KIIs for the Endline Evaluation, BRACC Annual Reviews 2019 and 2020

A significant number of savings were achieved, either through negotiations with suppliers for various procurement actions (one UN partner securing a reduction in the service fee of a financial services provider from 4% to 2%; one BRACC partner negotiating the commercial terms of their preferred bidder for audit services provision, etc); or cost-conscious behaviour by project teams (sharing vehicles to go to the field; using meeting facilities of partner organisations rather than renting a venue, etc). Some of the Covid adaptations also led to cost savings, for example one NGO partner explained that by conducting the same training remotely and on WhatsApp-based modules, they reached 10 times as many people for less than half of the cost.

In general, there was a good awareness among programme staff of input costs (e.g. livestock, pumps, seeds, airtime, travel costs, technical assistance), but less awareness of output costs, in other words, costs of delivery. For example, an NGO partner working on VSLA did not readily have, or routinely collect, information on set up, or lifetime costs of VSLA groups for BRACC programme[6]. Another UN partner noted challenges with presenting a cost per evacuation centre that was built. Opportunities for joint procurement, which could have also generated cost savings, were largely not taken. This reflected existing procurement practices in organisations, with one UN partner IP explaining that 'The procurement actions and budgets were fairly ring-fenced'. Some held the view that the steer towards joint procurement should have come from FCDO programme management. It is conceivable that the delayed start on the programme and the subsequent time pressures on all partners prevented a closer cooperation and action on this issue.

A significant challenge to programme delivery was caused by the financing situation for the programme, which includes the financial management requirements and the lumpiness of finance availability (which eventually culminated with the programme being significantly reduced as a result of ODA budget cuts). On the whole, this did not affect delivery, with most implementing partners managing procurement delays using existing contacts or taking risk mitigation actions, although procurement related delays were visible in one UN partner's activities where a large quantity of bicycles for their community-based facilitators arrived a year after they were due. Changes in funding availability meant that implementing partners had to review quarterly and annual forecasts several times during the programme lifespan. The rigid financial management requirements did not fit with the design principle of adaptive management and meant that often good fund absorption was achieved at the expense of accurate forecasting, with one PROSPER IP noting,

> *"We had limited scope to do any adaptations financially. We constantly had to undercut our budget estimates to avoid underspend". KII PROSPER IP*

Ultimately, funding was the most significant limitation to programme success and curtailed activities as well as potential adaptations to improve results, and ultimately impacted on the VfM delivered by the programme.[7]

Whilst it was realised that there were many benefits from the multi-consortium model for delivery of layered interventions, outlined above, with a few exceptions the cost for return of intervention packages is largely unknown. Cash-based responses were largely considered effective, used to diversify into other crops and to buy other productivity-enhancing inputs, and the multiple interventions was believed to strengthen the value for money proposition. That said, the transaction costs of achieving that value proposition from consortium models can be costly, and typically increase as the number of partners increases. Some implementing partners found the coordination and reporting burden was higher than had been budgeted, and one PROSPER IP suggested

[6] They noted that they had this information for reporting to their Board concerning other projects in Malawi, but had not done the calculations for PROSPER interventions.
[7] PROSPER NGO Consortium Programme Completion Report, October 2021, page number unidentified.

that there was the need for a larger PMU structure that was fully funded beyond the two coordinators. Overall, it is critical to ensure that sufficient resources are allocated to the coordination and participation in programme-wide activities and learning.

More information on value for money is available in the Value for Money brief[33].

6. Exposure to and participation in interventions

Summary

Overall, PROSPER interventions reached 73% of households in targeted communities, in line with programme design. Nearly half of households reported participating in three or more interventions, in keeping with the programme's approach of bundling interventions. However, relatively few households were reached by some activities, including programmes that distributed assets such as Cash for Inputs or livestock pass-on. In addition, the lowest wealth category, 'hanging in', appears to have been targeted for a relatively low number of activities, and had low participation rates for activities that were broadly targeted.

Female-headed households participated in fewer activities on average, although for some activities, their participation rates were on par with those of male-headed households. This appears to reflect two factors. First, female-headed households are more likely to be in the 'hanging in' category, whose lower participation rates reflected targeting as well as additional barriers to participation. Second, female-headed households can face additional challenges with programme participation due to lower labour capacity as well as societal norms which limit women's behaviours.

Analysis of the impact evaluation data showed that many households in control communities also reported participating in PROSPER activities. For activities like VSLA groups and farmer groups, which are common in Malawi, households may have participated in activities sponsored by other stakeholders. However, some PROSPER activities like Cash for Inputs are quite unique, so this suggests there may have been some contamination of activities to communities other than those targeted. While problematic for the impact evaluation methodology, this indicates that the reach of PROSPER went beyond the population of target villages.

Qualitative data found extensive evidence of spillover effects due to PROSPER and other BRACC interventions, which serve to amplify programme impact. Types of spillovers documented included:

- Temporal effects; example: positive impact on income from PROSPER activities enabling investment in additional livelihood activities
- Externalities; example: community-wide decreases in water-borne diseases due to PROSPER programme participants' investments in hygiene
- Social interaction effects; example: Neighbours taking up bee-keeping after observing African Parks participants having success with it
- Context equilibrium effects related to social norms; example: other community members changing hygiene behaviour in response to social norms around hygiene changing
- General equilibrium effects related to wider economy; example: increased income among programme participants resulting in increased spending and hiring in communities
- Programmatic spillover effects; example, with less food insecurity, local government programmes are able to focus on other activities to build long term resilience and development

Achieving exposure to, and participation in, activities implemented under BRACC is a critical to programme effectiveness and impact. This section assesses the reach of BRACC programmes, particularly community and household-level interventions implemented by PROSPER, inclusiveness of programme reach with respect to

different types of households, and the degree to which programme spillovers occurred. The principal data source for PROSPER programme participation and inclusiveness are the Annual Survey and qualitative data, although the impact evaluation data are used to assess contamination. Qualitative data are the prime data source for assessing spillovers.

6.1 Participation in interventions across the BRACC programme

Annual survey data, which cover a representative sample of communities targeted for PROSPER interventions, were used to assess exposure to and participation in PROSPER interventions. Respondents were asked about participation in a list of interventions, run or supported by PROSPER, in the past three years. Some interventions, such as participation in farmer groups or village savings and loan groups, are generic and implemented by other organizations working in Malawi, so for each intervention a respondent reported their household participated in, the respondent was asked if it was supported by PROSPER.

Overall, 73 percent of respondents reported participating in at least one of the listed interventions, and 48 percent reported participating in at least one intervention they knew to be supported by PROSPER. Some participants may have participated in PROSPER activities without being aware they were sponsored by PROSPER. The mean number of interventions respondents reported participating in was 2.8, and the median was 2.

Figure 4 charts the share of respondents who report participating in each activity type, and the percent of participating respondents who attribute the intervention to PROSPER support. The activities with the highest participation rates included participating in farmer groups, and relatedly, receiving extension support during the rainy growing season; participating in village savings and loan (VSLA) groups; tree planting; and participation in Food for Assets (FFA). Some of these activities, including participation in farmer groups and extension, participation in VSLA groups, and tree planting, were attributed to PROSPER less frequently relative to other interventions; these interventions are commonly promoted by a wide range of stakeholders or civil society organizations. The activities most commonly attributed to PROSPER included FFA, livestock pass-on, cash for inputs, and training on and distribution of PICS bags. These activities are relatively high impact and unique, which may have contributed to participants being more likely to associate them specifically with the PROSPER programme.

Figure 4. Participation and Attribution to PROSPER, by Programme, Targeted Communities

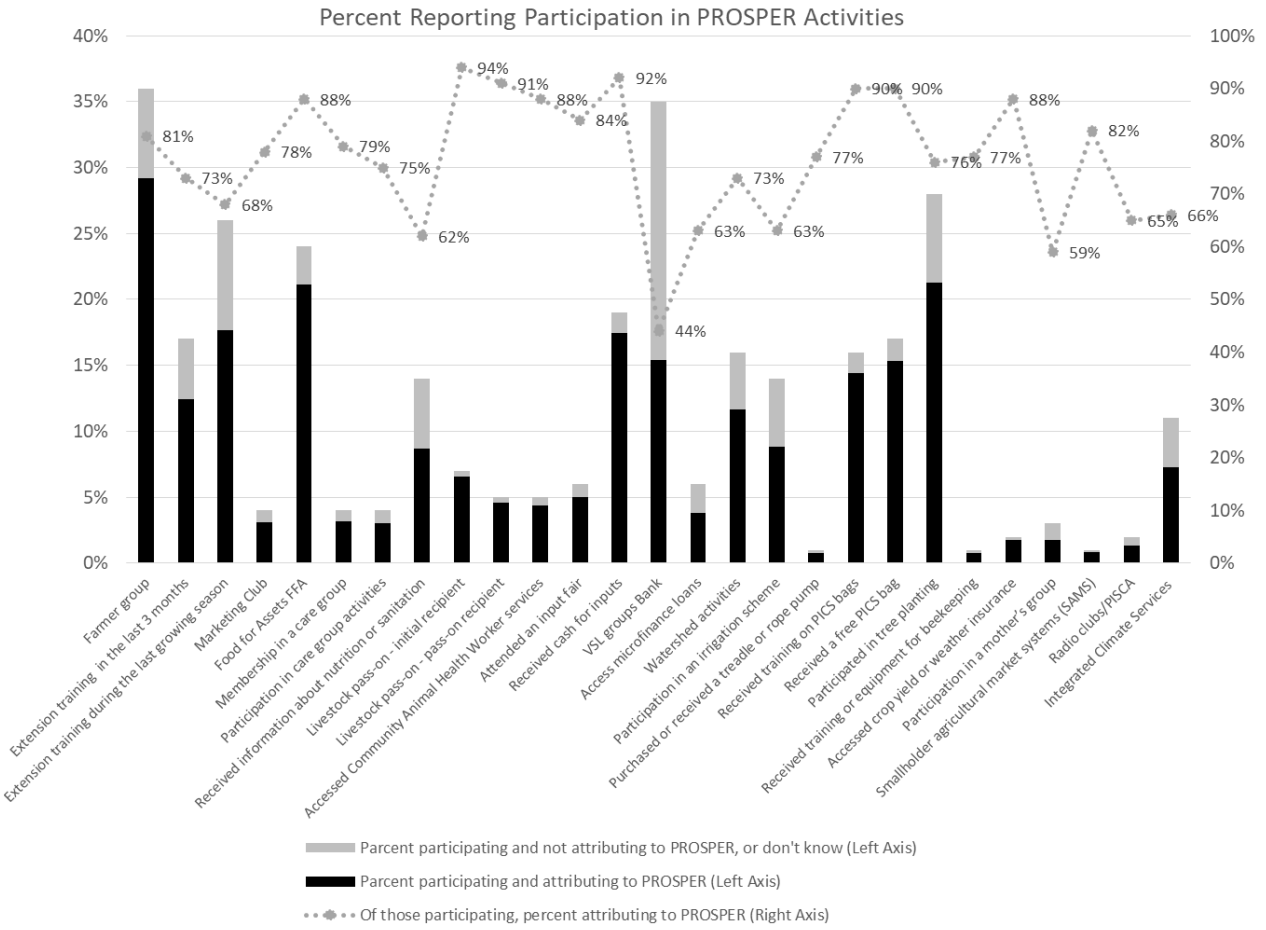


Table 9. Participation Rates by Programme and Demographic Group

PROSPER Activities	Overall Participation Rate	Hanging In	Stepping Up	Stepping Out	Female-headed households	Single-headed households	Youth-headed households	Elderly-headed households	Households with a member with a disability	Balaka	Chikwawa	Mangochi	Phalombe
Hanging In Targeted													
Food for Assets FFA	24%	33%	25%	20%	23%	22%	25%	21%	23%	10%	6%	24%	42%
Membership in a care group	4%	2%	7%	7%	4%	3%	7%	2%	4%	5%	3%	3%	6%
Participation in care group activities	4%	2%	6%	7%	3%	2%	6%	1%	3%	3%	3%	3%	6%
Participation in a mother's group	3%	3%	3%	3%	3%	3%	1%	2%	2%	1%	4%	3%	2%
Smallholder agricultural market systems (SAMS)	1%	0%	2%	1%	0%	0%	1%	0%	1%	0%	0%	2%	1%
Stepping Up/Stepping Out Targeted													
Received livestock in the first round of a livestock pass-on programme	7%	5%	13%	13%	5%	5%	6%	7%	7%	3%	3%	11%	9%
Received livestock passed on from another household in a livestock pass-on programme	5%	3%	8%	7%	3%	3%	5%	3%	4%	3%	2%	6%	6%
Accessed services from a Community Animal Health Worker	5%	4%	10%	8%	4%	4%	5%	4%	6%	1%	2%	8%	6%
Attended an input fair	6%	4%	11%	9%	7%	7%	3%	3%	5%	1%	8%	9%	5%
Received cash for inputs	19%	18%	28%	18%	18%	17%	15%	15%	19%	17%	21%	24%	12%
Access microfinance loans	6%	5%	8%	11%	4%	4%	6%	6%	4%	0%	1%	7%	12%
Purchased or received a treadle pump or rope and water pump	1%	1%	2%	3%	1%	0%	2%	0%	1%	0%	1%	1%	2%
Received training or equipment for beekeeping	1%	1%	1%	2%	1%	0%	1%	1%	1%	1%	1%	1%	1%
Received training on PICS bags	16%	12%	27%	28%	15%	13%	12%	15%	17%	13%	14%	26%	9%
Received a free PICS bag	17%	13%	28%	29%	16%	15%	14%	15%	18%	15%	15%	26%	9%
Targeted to All Groups													
Farmer group	36%	32%	54%	46%	29%	28%	33%	30%	35%	22%	36%	41%	39%
Extension/technical training with your lead farmer or extension worker in the last 3 months	17%	17%	24%	30%	14%	15%	12%	18%	15%	4%	7%	26%	23%
Extension/technical training with your lead farmer or extension worker during the last growing season	26%	25%	36%	42%	22%	22%	24%	26%	25%	6%	14%	37%	34%
Accessed crop yield or weather insurance	2%	3%	3%	3%	1%	1%	5%	1%	3%	0%	0%	4%	3%
Participation in an irrigation scheme	14%	13%	21%	18%	10%	10%	14%	12%	14%	4%	10%	12%	23%
VSL groups Bank	35%	30%	42%	43%	28%	26%	32%	27%	32%	34%	38%	32%	36%
Marketing Club	4%	4%	8%	6%	4%	4%	4%	3%	4%	2%	2%	7%	5%
Received information about nutrition or sanitation	14%	14%	20%	19%	11%	11%	20%	8%	14%	5%	7%	12%	27%
Watershed activities	16%	16%	22%	24%	12%	13%	16%	15%	15%	9%	11%	15%	24%
Participated in tree planting	28%	27%	39%	31%	22%	21%	25%	23%	26%	16%	33%	27%	32%
Radio clubs/PISCA	2%	2%	2%	5%	1%	1%	1%	2%	1%	1%	1%	3%	2%
Integrated Climate Services	11%	11%	17%	15%	7%	8%	9%	9%	12%	1%	11%	11%	18%

Table 9 shows participation in each intervention, grouped by the wealth category the intervention was targeted to, disaggregated by demographic groups. Participation in programmes promoted by PROSPER varied highly by wealth group and geographic area. 'hanging in', the lowest wealth group, had lower participation rates in almost all activities, even those targeted to them; the exception was Food for Assets. In terms of districts, Balaka and Chikwawa generally had lower participation rates that Phalombe or Mangochi, although there were exceptions for some interventions. Households in traditionally disadvantaged groups, such as female-headed households, also tended to have slightly lower than average participation rates across interventions (See Box 2).

Results for overall participation were in line with PROSPER's intention to reach near 80% of community members with interventions. However, a key element of PROSPER's programme theory is the strength of bundling complementary interventions. Table 10 reports participation rates among targeted communities for bundles of interventions. The share of respondents receiving bundles is fairly high—nearly half of respondents report their household participated in three or more interventions. However, the share of respondents who report participating in bundles that include high intensity interventions that distribute assets, such as Cash for Inputs or livestock pass-on, is relatively low, even though these two interventions together reached about a quarter of households in targeted communities.

Table 10. Participation Rates for Bundles of PROSPER Programmes

Bundle	Percent Participating in All Bundle Elements
Any 3 or More	48%
Any 5 of More	28%
Extension + Cash for Inputs	7%
Extension + Cash for Inputs + Irrigation	3%
Livestock + Cash for Inputs	4%
Livestock + VSLA	5%
Livestock or Cash for Inputs	25%

The perspective that interventions did not reach the majority of community members was echoed in many of the qualitative interview responses from programme participants; this was particularly the case for highly desirable asset-distribution programmes like livestock pass-on and cash for inputs. Some respondents noted that exclusion from these programmes may have created bad feelings among some households, contributing to lower participation in other, more broadly targeted interventions.

> *"The main problem with PROSPER interventions was that they chose beneficiaries to receive goats and money for farm inputs instead of just distributing to everyone." SSI2, Female, HI, PROSPER, Balaka*

> *"Some projects only target a few people in the community and others fail to benefit from the project activities because they feel left out and so don't have an interest to participate." FGD, Male, SU, PROSPER, Mangochi*

Some respondent views also reinforced the finding that the lowest wealth group, 'hanging in' was disadvantaged in terms of program targeting, although respondents generally saw this as a valid programme strategy to ensure that assets were targeted to those who could use them effectively.

> *"Community members who are poor and rich did not benefit because the program targeted those who have capacity and ability to implement the project." FGD, Female, SU, PROSPER, Chikwawa*

Finally respondents described some barriers to participation apart from programme targeting or limitations. For example, a number of respondents noted that those who are very poor or don't have cash income struggle to participate in village savings and loan groups, because they cannot contribute savings.

> *"I would love to participate in village banks but I do not have money or capital for any business that can help me sustain my membership in the village banks. So if maybe we were given some sort of start-up shares in village banks then the village banks would be successful." SSI2, Female, HI, PROSPER, Balaka*

Box 2: Gender and Programme Participation

In-keeping with PROSPER's GESI Strategy there were proactive attempts to include women and other marginalised population groups in interventions. Women were particularly targeted for VSL and asset-transfer activities based on evidence that women tend to spend cash for whole household benefit, which was corroborated in BRACC, with one woman in a male-headed household explaining

"My husband would sell our crop produce without telling me and then spend all our money and food on other women, leaving my children and I to suffer." *SSI2, Female, low income, Older, Ntchisi*

Women universally explained that they were encouraged to participate in BRACC interventions. For women in male-headed households they did report having to seek permission from their husbands to do so, but this was largely granted.

Compared with women in male-headed households, female-headed households are disadvantaged due to less labour capacity as well as societal norms which limit women's behaviours. Female-headed households participated in PROSPER interventions at a significantly lower rate than male-headed households: participating in an average of 4.6 activities compared to 5.5 activities in male-headed households, a difference that was statistically significant at the 5 percent level. Some of the activities where female-headed households participated at notably lower rates than male-headed household included VSL groups (28% for female-headed households versus 35% for male-headed households), farmer groups (29% versus 36%), tree planting (22% versus 28%), and irrigation schemes (10% versus 14%). For other activities, participation was more comparable: Cash for Inputs (18% versus 19%), participation in care groups (4% for both), and participation in PICS bag training (16% versus 15%).

Lower participation among female-headed households appears to be driven by two factors. First, female-headed households were more likely to be categorized in the HI category (lowest wealth group) - 41% compared to 32% of male-headed households, and HI was targeted for fewer programmes, and was less reached by programmes intended to have broad targeting.

Second, female-headed households may face additional barriers related to time and labour scarcity, or having fewer adults in the household. Multivariate analysis of the factors associated with participation in higher numbers of interventions, and in particular interventions, suggest that lower participation among female-headed households is largely accounted for by the fact that they are largely single-headed households: 82% of female-headed households are single-headed, compared with only about 5% of male-headed households. Higher dependency ratios, and lower household size, are also associated with lower participation in some interventions. Single female heads of household may have less time to participate in labour-intensive interventions such as Food For Assets; having fewer adults may make it less likely that someone in the household is selected to benefit from a programme like Cash for Inputs.

In terms of participation in particular interventions, female-headed households in treatment villages adopted slightly more conservation agriculture practices than the control villages (the same was noticed for male-headed households). There was also higher participation by women than men in the VSL groups, with many women in focus groups mentioning that women members are preferred to men, who often take out loans and fail to pay them back.

For additional information on gender and participation, see the GESI brief[34].

6.2 Exposure to interventions in the treatment and control villages

In addition to using the Annual Survey data to assess participation of different groups across all targeted Districts, The impact evaluation data were used to look at differences in programme participation rates between treatment and control communities in Balaka and Phalombe.

Table 11 shows the proportion of treatment and control households who reported participating in the types of interventions implemented by PROSPER. The table also indicates whether the interventions that households participated in were implemented by PROSPER or another implementer (columns 3 and 5 respectively).

For the majority of interventions, households in the control group had similar levels of participation to that of the treatment group, or comparatively high levels. In addition, even in control groups, with the exception of VSLA groups, mothers' groups and extension training, the majority of households said the interventions that they participated in were implemented by PROSPER.

These findings could reflect a number of factors. First, respondents may not have accurately reported on the intervention source, as a number of organizations working in Malawi have promoted similar interventions, especially for activities such as care groups, VSLA groups, and extension support. Second, there may have been inadvertent spillovers resulting in control groups households participating in PROSPER interventions; for example, households from neighbouring communities may have travelled to participate in activities, especially non-exclusive activities such as trainings, or farmer group or irrigation scheme members served by PROSPER may have contained members from different villages.

The key implication for the endline impact evaluation design was that simple comparisons between the treatment and control households would be biased in the direction of underestimating the impact of the PROSPER programme. Furthermore, the relatively low levels of participation in the treatment villages for the majority of interventions, and the low levels of differences between the treatment and control, mean that the survey sample would not have sufficient power to estimate impact of the treatment on the treated using an instrumental variable approach, as would be preferred for an RCT with imperfect treatment compliance. For assessing impact we therefore needed to compare household participators in treatment villages versus similar non-participators in the control villages using quasi-experimental methods to control for differences in confounder baseline characteristics (see methodology section and Appendix F for further detail).

Table 11. Participation Rates For Treatment and Control Communities, by Intervention, Impact Evaluation Sample

		Proportion participating in interventions			**PROSPER implementation of intervention**	
Category	Indicator	Control	Treatment	P-vals	Control	Treatment
Access to Ag. inputs	Attended_input_fair	0.03 (0.01)	0.03 (0.01)	0.73	0.62 (0.11)	0.76 (0.09)
Access to Ag. inputs	Cash_for_inputs	0.02 (0.01)	0.14 (0.02)	0.00**	1 (0)	0.94 (0.02)
Access to Ag. markets	Farmer_group	0.18 (0.02)	0.32 (0.02)	0.00 **	0.53 (0.05)	0.83 (0.02)
Access to Ag. markets	Marketing_club	0.02 (0.01)	0.04 (0.01)	0.04*	0.65 (0.15)	0.84 (0.06)
Access to Ag. markets	Smallholder.agricultural.market.systems	0.01 (0)	0.01 (0)	0.98	0 (0)	0 (0)
Care groups	Care_group_member	0.05 (0.01)	0.05 (0.01)	0.67	0.69 (0.07)	0.91 (0.04)
Care groups	Care_group_activities	0.04 (0.01)	0.05 (0.01)	0.52	0.73 (0.07)	0.92 (0.04)
Crop storage	Received.training.PICS.bags	0.02 (0.01)	0.1 (0.01)	0.00**	0.9 (0.07)	0.94 (0.03)
Crop storage	Received.free.PICS.bag	0.02 (0.01)	0.12 (0.01)	0.00**	0.93 (0.07)	0.93 (0.03)
Extension training	Extension_training_3mnths	0.1 (0.01)	0.16 (0.02)	0.02*	0.4 (0.06)	0.69 (0.04)
Extension training	Extension_training_growingseason	0.18 (0.02)	0.23 (0.02)	0.05 *	0.27 (0.04)	0.6 (0.04)
Financial services	VSLA_groups	0.25 (0.02)	0.35 (0.02)	0.00**	0.22 (0.04)	0.44 (0.04)
Financial services	Access_micro_finance_loans	0.05 (0.01)	0.08 (0.01)	0.20	0.44 (0.08)	0.59 (0.07)

Financial services	Accessed.crop.yield.weather.insurance	0.01 (0)	0.02 (0)	0.07	1 (0)	0.85 (0.09)
Irrigation	act.irrigation.scheme	0.09 (0.01)	0.16 (0.02)	0.01*	0.38 (0.05)	0.64 (0.05)
Irrigation	Purchasedorreceived.treadle.pump.rope.water.pump	0 (0)	0.02 (0.01)	0.15	1 (0)	1 (0)
Livestock support	Livestock_pass_on_first_round	0.03 (0.01)	0.07 (0.01)	0.00**	0.67 (0.11)	0.92 (0.03)
Livestock support	Livestock_another_hh	0.02 (0.01)	0.05 (0.01)	0.01*	0.82 (0.1)	0.98 (0.02)
Livestock support	Community_animal_health_worker	0.01 (0)	0.04 (0.01)	0.00**	0.58 (0.16)	0.83 (0.08)
Mothers group	act.mother.group	0.01 (0)	0.02 (0)	0.40	0.33 (0.16)	0.53 (0.17)
Natural Resource Management	Food_for_assets	0.13 (0.02)	0.3 (0.03)	0.00 **	0.87 (0.04)	0.96 (0.01)
Natural Resource Management	Watershed_activities	0.12 (0.02)	0.18 (0.02)	0.01*	0.73 (0.06)	0.87 (0.03)
Natural Resource Management	Participated.tree.planting	0.18 (0.02)	0.26 (0.02)	0.01*	0.67 (0.06)	0.89 (0.03)
Natural Resource Management	Training.equipment.beekeeping	0.01 (0)	0.01 (0)	0.37	0.5 (0.31)	1 (0)
Nutrition and sanitation	Nutrition_sanitation_info	0.19 (0.02)	0.19 (0.02)	0.93	0.53 (0.05)	0.7 (0.04)
Weather and climate services	Radio.clubs.PISCA.Makalabu	0.01 (0)	0.01 (0)	0.36	0 (0)	0 (0)
Weather and climate services	Integrated.Climate.Services	0.09 (0.01)	0.12 (0.01)	0.12	0 (0)	0 (0)

6.3 Spillover effects

Interventions may often result in secondary benefits and spillover effects, both for direct programme participants as well as for the wider community, including programme effects on the non-target population and in the local economy. The scope for this is notably significant in BRACC because of the training-first approach (as opposed to an asset-first approach). Hence it is likely that there will be informal sharing of knowledge and information about new ways of working introduced and supported by the programme. Capturing spillover effects is important. By just measuring the difference between treatment and control groups (participants and non-participants) in the same or nearby communities we will not capture the full impact of the programme (both positive or negative). This underestimates the effect on the treatment group and does not measure effects on the 'untreated'.

The qualitative data were analysed for the following types of spillover effects:

- Temporal spillovers for participant households: based on the observation that behaviour at time 1 will affect behaviour at time 2.
- Externalities: effects operating from programme participants to non-participants. For example changes to the environment such as afforestation that impact everyone (environmental externalities).
- Social interactions: indirect effects of interventions on non-participant households through social and economic interaction with participants, including neighbourhood peer effects. For example, sharing of resources provided by the programme such as seed.
- Context equilibrium effects: spillovers arising from interventions that affect the context in terms of behavioural and social norms. For example, widespread changes in sanitation practices introduced by a programme and embedded within the wider community.

- General equilibrium effects: changes in prices and markets due to shifts in supply and demand caused/ stimulated by an intervention. Includes local economy effects.
- Programmatic spillover effects: effects that spread programme-to –programme

Additional information on the spillovers is also found in the Spillover Effects Brief[35].

6.3.1 Temporal spillovers

Temporal spillovers for BRACC programme participants include emerging evidence of investment in businesses outside of agriculture/livestock, stemming from access to savings and loans as start-up capital from the VSLA groups. This is potentially a signal of strengthened resilience if the enterprises are weather independent. It may also signal increased dynamism or vibrancy in the local economy – for example shops opening to cater to pent up or increased demand and more cash circulating in the economy, particularly related to access to cash via VSLA groups.

> *"whenever people have received their savings or loans we take it also as an opportunity to start up or top up businesses in the community, if you can go around our community you will realize that there are shops, groceries and different businesses being conducted, all these were generated from savings and loans from our VSLA groups, we have seen that now there is sustainability of most of the small-scale businesses because we boost these from the savings and loans." FGD, Female, SU, PROSPER, Phalombe*

> *"And I also just wanted to say that one of us. Yes. I wanted to say that one of these spill overs that, uh, we also noticed is a shift in, in the kind of businesses that we had previously seen previously, most of the businesses were traditional, uh, like the selling of groundnuts. But now, because there's a shift from, from traditional businesses, big businesses, for example, you would find an agro dealer, um, shop, which was being run by one of the beneficiaries. This was something which was, um, and not a norm in the past before the project. And he would say that this was a spillover because, um, the project was supporting some, uh, farmers, um, some entrepreneurs were able to see an opportunity in that open shop. So yeah, that's one of the spillovers." KII, BRACC programme staff*

One respondent reported being better connected and informed as they were now able to access news because of radios they were able to buy with money they have made from participating in the programme (potentially leading to increased crop sales). There is also less reliance on others for news now that they can access it directly in their own homes (which is potentially a good foundation/enabler for sharing climate-related information and early warning). Also the ability to purchase bicycles can lead to increasing mobility. Accumulation of assets extends to purchasing a TV, which influences how people spend their leisure time.

> *"We are able to access news through radios that we bought after being successful in these programmes, it was not easy to get this news earlier on that it was only the selected individuals that got it. At least now we have this in our own homes. We also have bicycles that we are using for mobility." FGD, Male, HI&SU, PROSPER, Balaka*

> *"My children don't go very far they just stay indoors and watch TV. It means they have something to relax with when they are not studying or doing other things." SSI2, Older, Female, High Income, African Parks, Nkhotakota*

There is strong evidence for participants' increased ability to pay school fees – this is what many prioritise along with meeting basic household including food needs when their income has increased as a result of programme participation. This has far-reaching effects into the next generation.

> *"The number of people coming to the social welfare office seeking bursaries has reduced as a result of increased income. Many people are able to pay school fees for their own children." SSI1, District-level stakeholder, PROSPER, Chikwawa*

6.3.2 Externalities

A number of externalities (effects originating from the programme on non-participants) can be seen from BRACC. These relate to services provided by the programme that non-participants also benefit from, as well as environmental externalities that impact everyone in a locality.

There is strong evidence that improved sanitation practices and reduced open defecation have had amplified results and spillover effects, helped by making those training sessions open to all and building on previous similar interventions, but also in some cases changed practices advocated by BRACC may be strictly enforced by local leaders/chiefs. Many interviewees in both Chikwawa and Balaka described a decline in cholera and other waterborne diseases in communities, linked directly to the programme. Lower incidence of disease has knock-on effects in terms of lower spending on health costs:

> *"Through community meetings conducted by Goal officials, extension workers, healthy workers and chiefs, where sanitation and hygiene practices were being encouraged, most people in the area are now practicing these activities. As a result of this, we have seen a decline in cholera cases. In the past, when most households did not practice sanitation and hygiene cholera incidences were rampant every year especially during the rainy season." FGD, Female, SU, PROSPER, Chikwawa*

> *"Since diseases like cholera have now reduced, we don't spend money on drugs and hospital bills." KII, community-level stakeholder, PROSPER, Chikwawa*

The environmental management interventions supported by the programme generate a number of externalities for the wider communities, who are experiencing a range of benefits (medium-strong evidence). Tree planting in communal forests benefits the whole community, as does reduced tree felling to use for firewood where cookstoves have been introduced. Some non-participants have adopted cookstoves having seen how they demand less firewood (evidence from Phalombe and Chikwawa). Exposure and vulnerability to weather-related shocks and stressors have been reduced, for example through tree planting and the construction and use of check dams, while water recharge benefits everyone downstream:

> *"As for the environmental management, it does benefit everyone because the trees that we have planted serve as wind breaks for everyone that is in the community regardless of whether they are participants of the program or not." FGD, Male, SU, PROSPER, Chikwawa*

Where the environmental management work protects and improves conditions around schools this has increased safety for children, contributing to improved school attendance:

> *"For example, as already stated our school used to be affected by floods every year before we planted trees and constructed check dams. After the project came, we were trained and given resources to plant trees around the school and construct check dams. This initiative worked as our school no longer experiences floods and our children are safe and learning comfortably. As you can see this programme has worked for everyone even if some people did not take part in it." FGD, Female, SU, PROSPER, Chikwawa*

Households keeping livestock in communities where the programme operates have reported benefits from improved access to livestock services, notably trained community animal health workers (CAHWs) with drug boxes for deworming and treating animals, which responds to wider, pre-existing demand in communities (medium evidence): "community animal health workers, having the drug boxes and the demand was already there, as you said, from the, from the farmers". (KII, BRACC programme staff). One interviewee suggested that CAHWs trained under PROSPER have championed village-level livestock clubs (outside of the programme) with positive impacts on animal health, including lowering mortality rates:

PROSPER trained animal health workers. PROSPER only distributed goats but animal health workers were trained on all species of livestock including chicken.

> *"We have clubs in the communities we call them "Chitopa toto clubs'. We encourage farmers to routinely vaccinate their chickens and these clubs are not under PROSPER, they are just village-based clubs being championed by community animal health workers trained by prosper. Issues of newcastle disease is just history now. The community workers are there to vaccinate the chickens. This has significantly lowered the mortality rate of chickens. PROSPER distributed drug boxes to these community animal health workers and they do not only attend to animals belonging to prosper participants, they serve everybody who own any species of livestock, talk about cattle, pigs. Mortality rate of young animals eg calves and kids has also reduced. The community health workers deworm the animals on time. Non participants who own goats also*

have constructed raised kraals for the goats making the collection of goats droppings easy." SSI1, District-level stakeholder, PROSPER, Balaka

Another positive spillover mentioned in interviews were lower transport costs – in particular for buying inputs due to the cash-for-inputs element of the programme bringing agro-dealers in to communities. Others involved in African Parks mentioned lower transport costs for local vendors able to source produce from participants close-by to resell, thereby no longer having to order produce from far away – leading to higher profits for vendors – as well as being able to supply local lodges with fresh produce direct from farms. Linked to this, respondents described food being more readily available in communities and villages in surrounding areas because more households have a surplus to sell (weak evidence). In one district, overall increased availability of food has reportedly reduced incidence of farm theft considerably, according to one respondent:

"Nowadays we don't even bother to walk long distances to buy maize for example if we are in shortfall at household level because most of people in our community still have more than enough stock to even sell to others. Issues of theft of farm produce have abruptly reduced since almost everyone in the community is able to have adequate food, in addition to that Cash for Inputs has minimized issues of shocks and natural disasters such as flooding and dry spell, most of us have planted trees around our field and also some grass in order to control water from while bringing back forests. Therefore had it been we had no Cash for Inputs then we would have knowledge and skills on good and modern farming practices." FGD, Female, HI, PROSPER, Phalombe

6.3.3 Social interactions

The strongest evidence for spillover effects relates to changes in behaviour/ knowledge due to neighbourhood peer effects, in particular where non-participants learn from experiences of participants. This is not surprising given the socially embedded nature of livelihoods activities and the importance of informal social networks and social support systems. In the case of the BRACC programme this is likely to be reinforced by the widely-held perception within communities that everybody needs support so everybody should have been included in the programme (PROSPER respondents, Process Evaluation 2021), and there is evidence of sharing of resources by programme participants with non-participants:

"Non-programme beneficiaries also benefited from the vegetables we were planting. We would be given a packet of seeds to share and everyone was planting in his/her garden. The vegetable seedlings would be too much for one person to plant all of them considering the water shortage in this area that makes irrigating a large piece of land hard. In the end, we would share the vegetable seedlings with 7-8 non-beneficiaries that would also plant the vegetables in their gardens." FGD, Female, SU, PROSPER, Chikwawa

Interviewees in Nkhotakota described how both stove-making and bee-keeping have caught on in their wider community, not just among African Parks programme participants but non-participants too. Non-participants learn from the trainers trained by the programme: "Even for bee keeping, other people who weren't trained end up starting when they see that other people in are benefiting. We also have other people who are not part of the program doing bee keeping in their own forests, these people learn from the groups and start to do the bee keeping individually by buying the beehives by themselves" (KII, Community-level stakeholder, African Parks, Nkhotakota). Non-participants have also been borrowing the bee suits given to participants (PROSPER). Further evidence for spillover effects are signs that honey is coming from a wider radius than the programme implementation area.

These types of spillover effects extend to communities not targeted by the programme, with four different communities cited by the interviewee as emulating programme activities, seeking out support from the district office, and carrying out bee keeping, stove making and fruit growing in their communities with some success. One community has gone on to set up VSLA groups for the savings they accrue through sales of honey from the 20 beehives the have installed in their own forests.

Evidence of spillover effects (emulation) of conservation activities by non-participants of both the African Parks project and PROSPER amplifies the benefits from tree-planting and less tree felling (strong evidence).

"Communities that were not targeted in the programme have adopted these activities and are being implemented in their communities especially on environmental conservation which has led to forest's restoration." SSI1, District-level stakeholder, Ntchisi

There is strong evidence for behavioural change through neighbourhood peer effects in the use of improved farming techniques, with non-participants either emulating their neighbours or benefiting from the guidance of the lead farmers.

"Most of the households have adopted modern farming practices. They have reduced ridge spacing, reduced planting station spacing, have adopted sasakawa, they apply manure in their crop fields and have adopted conservation agriculture. Some plant hybrid seed, those that can afford. There are frequent dry spells in our area and they have started using hybrid seed because it matures early and its drought tolerant. They have adopted all these modern farming technologies because people get high yield from the very same piece of land which enables them to have food to feed our families. They have also adopted the modern farming technologies because of climate change." FGD, Female, SU&SO, PROSPER, Balaka

There is substantial, strong evidence that participants are actively sharing know-how beyond the programme, with some suggestion that it is in not only in response to requests from non-participants, but also freely given as a way to include those not targeted/ included in PROSPER. The main techniques taken up by non-participants, having seen improvements in participant yields, include:

- Use of manure
- Sasakawa planting system
- Canal irrigation
- Swales, in particular strong demand by non-participants for help from participants with swales after seeing how effective they were.
- Use of Hybrid seeds/ modern varieties
- Growing vegetables in backyard gardens, with potential knock-on effects on dietary diversity and food security

One non-participant in Balaka, a PROSPER District, described how he was able to increase crop production by emulating a range of activities that the programme was implementing, leading to increased crop sales:

"I have benefitted through increased crop production in a way that I have learnt manure making and use of manure, hence I was able to use manure in my farm because I cannot afford fertilize and I notice an increase in crop yield. In addition, I also tried the modern farming practices (i.e. planting 1 seed per planting station, reducing ridges, mulching) that were being promoted by PROSPER on part of my farm I was able to harvest more crops than the part which I used the old farming practices. The past years I could harvest about 7 bags of maize but 2020/21 growing season I was able to harvest about 14 bags. Through the skills and knowledge that was being disseminated in this community, when our friends were receiving cash for garden inputs, I also took up the initiative to purchase my own vegetables (tomatoes) and maize seed so that I can also try what these people who were in the programme were advised to do, and I was able to benefit from these crops through sales." SSI 3, Male, HI, PROSPER, Balaka

As well as evidence of non-participants taking up livestock rearing (goats), for existing keepers of livestock there is evidence of improved keeping practices by following advice advocated by the programme and supported by the availability of vets/ community animal health workers. Non-participants have also been emulating herding livestock (PROSPER) to prevent theft:

"Yes, construction of standard goat houses and worm control by deworming as well as dipping, these have been copied and implemented by community members in project sites that were not part of the program, just by appreciating the benefits as observed from the beneficiaries." SSI1, District-level stakeholder, PROSPER, Phalombe

VSLA groups have also been set up or joined by non-participants with some (weak) evidence that this links to being less dependent on doing ganyu (piecework), allowing people to invest in their own farming activities and

other enterprises. In Nkhotakota (African Parks programme) interviewees described VSLA groups set up by non-participant community having increased income and savings through emulating beehive activities.

Nutrition spillovers have also been described by community members. Part of the design of the programme was for the nutrition information to be available and accessible to all, but participants also described passing on know-how in cooking healthy recipes to non-participants.

> *"Some people have also changed their eating habits, they are able to emulate what some of us are doing for example adding sesame flour in the maize porridge that children eat. They would see that children eating such porridge are growing well with healthy bodies and they would emulate the same so that their kids can also grow well. In the past, such people would say they cannot feed their children porridge containing sesame or millet because it looks black which is not appetizing, but nowadays they have realized that even kids love such porridge and it is highly nutritious since kids eating such porridge do not get sick regularly." FGD, Female, SU, PROSPER, Chikwawa*

6.3.4 Context equilibrium effects: changes in social norms

There is emerging evidence from the BRACC programme of two spillover effects related to changes in context and social norms: School attendance and Sanitation/ hygiene. Improved school attendance can be directly linked to people being better able to pay school costs because of increased access to cash – either through increased sales, access to savings and loans through VSLAs or from watershed payments for the environmental management activities. Improved environmental conditions due to programme activities, discussed above, also make it safer for children to attend school, thus supporting improved attendance rates. Other interviewees ascribe improved school attendance and reduced drop-outs to families' ability to meet their food needs:

> *"The rise in income levels has led to a reduction in the school dropout rate because they get food, school uniform and school fees, thereby reducing the main issues that were causing children to drop out of school." SSI1, District-level stakeholder, PROSPER, Chikwawa*

As well as the spillover effects from improved sanitation and hygiene practices of participants creating overall better conditions for all, with reduced disease and a cleaner environment, there is also evidence of non-participants changing their own practices, either as individuals or as whole communities supported strongly and enforced by local leaders.

6.3.5 General equilibrium: wider economy effects

Given the short timeframe (2.5 years) of implementation, the likelihood of seeing general equilibrium effects and spillover effects in the wider economy, for example in supply and demand and prices, is low. This is especially affected by cutting sort the markets focused interventions under the BRACC programme. Qualitative data, however, does suggest some early signs that point towards such effects should implementation continue. For example, several strands of evidence suggest there is more cash circulating in the local economy stimulating demand for goods and services. Another potential wider economy effect is on labour markets (weak evidence). Some PROSPER participants mentioned being able to employ labourers because they now have cash to pay them.

> *"We are able to hire casual labourers to do some piece work for us because we have money, in the past, it was hard because we didn't have money to hire and pay a person. We have created a source of livelihood for other people." FGD, Male, SU, PROSPER, Chikwawa*

District-level interviews from the African Parks project described a range of wider economy effects resulting from the programme. Tourism has picked up due to improved environment in the reserves, leading to job creation for example as tour guides and in lodges. This in turn has increased revenues to councils who are able to invest in development activities, sanitation and environmental management and pay staff.

6.3.6 Programmatic spillover effects

In terms of spillover effects programme-to-programme, improved food security in participant communities means district offices are now reportedly able to focus on other sectors rather than shoring up food security. In addition, participant communities are widening what they include in the village level action plans:

> *"As a district we are mostly hit by dry spells or floods. So now these farmers are able to get food from other sources after getting money from the sales of honey and after investing in VSLAs and engaging themselves in small scale business, the people are becoming more food secure and their nutrition is improving. As a district we are now able to invest in other development activities rather than just providing food to the communities. We can now invest in other sectors. Previously if you go to the communities and tell them to produce their village action plans, all they could think were activities to do with public works like constructing roads, bridges and school blocks but now they are able to realize that even issues to do with nutrition, VSLAs and engagement in small scale business is also development. So they are able to incorporate them in their village level action plan and subsequently into the district development plan." SSI1, District-level stakeholder, PROSPER, Balaka*

One interviewee also reported that learnings from AP experiences have been carried into other programmes and by other NGOs implementing in other areas. Research carried out by BRACC implementers has also been used outside the programme by other actors. Consumer market research and baseline survey carried out by MCHF to understand the urban cooking energy context, and a charcoal point time survey, were designed to be compliant with CDM guidelines and therefore conducted with rigour. This was so others interested in developing a stove, carbon project or a charcoal carbon project, could pick up and use that data. Interviewees have suggested that stove promoters have entered the Malawi market partly as a result of this – pointing to spillover effects in terms of investment and delivery of solutions, from the project to an investor in a private sector entity: "they used the market information package that we developed to understand the market potential. They used the consumer market research and the charcoal data to develop a gold standard carbon project."(KII BRACC programme).

6.3.7 Spillover effects and sustainability

Some spillover effects provide signals for likely sustainability of BRACC once programme support ends. Training and knowledge building rather than asset transfer seem to be more effective in embedding improved practices in communities. Interviewees mentioned greater motivation of non-participants who emulate and take-up new practices introduced by the programme, suggesting self-motivation means the activities are likely to be sustained. However, as these people self-select into the programme, there are likely to be systematic differences between them and people who do not, or are unable to respond to neighbourhood peer effects. For example, interviewees mentioned that access to inputs/ capital as a key determinant of being able to carry out agricultural practices, in line with the wider literature that finds liquidity constraints to be associated with lack of adoption among farmers living near to programme participants, which further stymies agricultural productivity and growth[36]:

> *"some have changed their ways of farming after seeing how we are benefiting but some are still continuing with old farming because they say sasakawa requires a lot of fertilizer." FGD, Female, SU, PROSPER, Phalombe*

7. Adoption of practices and technologies

EQ 4b. To what extent are the objectives likely to be achieved? How, why, for whom, in what contexts? How effective has the programme been in delivering its planned outputs?

Adopting improved practices and technologies are a crucial element in developing the capacities and creating the key foundations in the pathways towards achieving higher level outcomes of adaptation and strengthened

resilience. These are important outcomes in themselves but also interact to contribute to absorptive, adaptive and anticipatory capacities and higher-level outcomes. This section sets out the evidence for the BRACC programme in building these important stepping stones towards greater resilience capacities, including: improvements to agricultural and livestock systems and practices; access to financial services; access to markets; access to climate information; natural resource management; access to information about improved nutrition and WASH practices. The principal data sources are the impact evaluation and qualitative data. The impact evaluation results are largely based on comparisons for participants and non-participants in PROSPER programmes. For context, relevant activity participation rates among the treatment and control communities in the impact evaluation sample are provided for each outcome; these may differ from overall participation rates among targeted communities reported in Section 6, as the impact evaluation sample includes only two of the four programme districts.

Summary

The impact evaluation found positive adoption impacts across almost all practices and technologies that PROSPER promoted (Figure 5). Whilst we found relatively high adoption impacts for households who participated in PROSPER-related interventions (boxes in the figure), the impacts in terms of number of households adopting the practices were relatively modest given the limited number of households participating in the interventions by the midline stage (shown by circles in the figure).

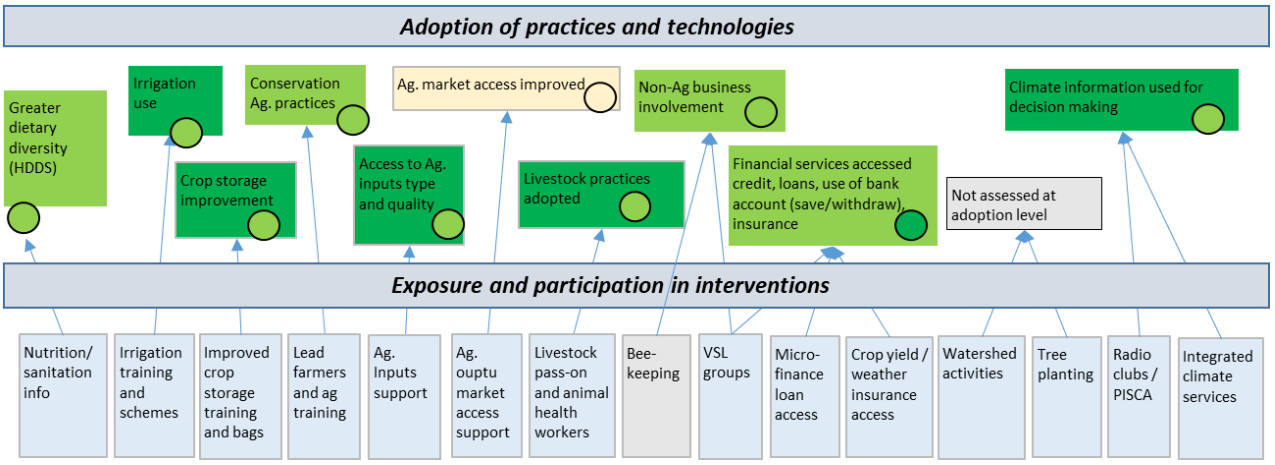
For uptake of improved agricultural practices, the impact evaluation study found high adoption impacts for households who participated in PROSPER related interventions, these included: irrigation use, crop storage, accessing of agricultural inputs and livestock practices. Smaller participator impacts were found on the adoption of widely promoted conservation agriculture practices, whilst no or inconclusive evidence was found for the adoption of natural resource management practices and agricultural market access respectively.

The impact evaluation found positive adoption impacts on the accessibility and use of financial services along with the building savings and taking loans for households who participated in VSL and MFI related interventions (over 35% of households). Insurance uptake however was low, less than 2%.

For interventions that promoted the access and good use of climate information, the impact evaluation found that participator households (14%) reported higher improvements in the accessibility, quality and use of climate information compared to similar non-participators.

Figure 5. Summary of Impact Evaluation Findings: Adoption of Practices and Technologies

(Yellow = mixed/unclear results, light green = medium impact, dark green = high impact.). The boxes represent impacts for households directly participating in the interventions whilst the circles indicate number of households reached within the treatment villages (scale of impact).



7.1 Agricultural practices (outcome 1)

7.1.1 Irrigation use

The two interventions used by PROSPER to improve the adoption of irrigation practices were improving household access to irrigation schemes (16% of respondents in the treatment group) and the selling/sharing of irrigation equipment e.g. treadle pumps (2% of treatment group respondents).

To assess the quantitative impact of PROSPER irrigation interventions on adoption of irrigation practices, we compared treatment village households who participated in at least one irrigation intervention with control-village households who did not participate in either irrigation intervention.

We found that households participating in PROSPER irrigation interventions were more likely to irrigate their land (73% and 24% in treatment and control respectively). We also found that participating treatment households were more likely to use irrigation technologies promoted by the programme (drip or solar), approximately 65% and 40% in the treatment and control groups respectively. These findings applied across all the sub-groups: female/male headed households, the wealth ranks and youth headed households.

Although the quantitative impacts were significant for participators in the treatment villages, as mentioned above, the intervention reach (number of households participating within the treatment villages) was relatively limited. The overall percentage of all sampled households irrigating their land was 36% in treatment villages compared to 29% in control villages. We found a significant but small impact on increasing irrigation use across all treatment households.

In the qualitative data, both PROSPER and African Parks participants were very positive about the merits of irrigation farming supported by the programme, and the fact that this has enabled them to move away from a reliance on rain-fed farming, thus enhancing their capacity to adapt to climate change, and in particular dry spells (strong evidence). This, in turn, has had significant positive impacts on their yields, household food security, income levels, especially during the lean season, and, ultimately, improved participants' capacity to absorb shocks and stressors (strong evidence).

Where participants had not adopted irrigation practices, the main barriers were lack of funds to obtain necessary resources, such as treadle pumps, and a lack of suitable land, rather than a lack of buy-in and interest (medium evidence). This limited these participants' ability to grow crops during the lean season and dry spells, and restricted their food security and household income from farming during these periods.

Limiting factors in the application of – and benefit from – irrigation practices included a lack of water to use for irrigation and, in Nkhotakota (African Parks), a dependence on solar power meaning the irrigation system did not function when there were clouds and limited sunshine (limited evidence). A participant from Chikwawa explained: *"What we produce under rainfed [agriculture] is not enough due to dry spells or drought that we experience every year. The vegetables like tomatoes and leaf vegetables that we produce in our gardens under irrigation is sold locally to buy food and other basic needs but [it is] seasonal due to scarcity of water and pest attack…"* (FGD, Female, SU, PROSPER, Chikwawa).

7.1.2 Crop storage improvement

Crop losses during storage due to pests are a common challenge for farmers in Malawi. Hermetic storage bags such as 'Purdue Improved Crop Storage' (PICS) bags are a technology that can reduce storage losses due to insect pests to near zero without the use of pesticides. The main intervention that PROSPER conducted to assist with the improvement in crop storage was training on the use of PICS bags and distribution of free sample bags to households. We found that 12% of households in the treatment group received PICS bags, whilst less than 10% reported receiving training on the use of the bags.

As part of the quantitative analysis, for the adoption and use of PICS bags for storage, we found a significant difference between households in treatment villages who participated in the above two interventions compared to the control household villages who did not (28% and 5% respectively). The adoption impacts were consistent across the sub-groups except for female, youth and wealthier (stepping-out households) having slightly higher adoption impacts. PROSPER was the only other implementer promoting the bags in the treatment districts, we therefore did not expect to see high levels of adoption in the control villages (unless through spillover).

The quantitative results also indicated that the promotion of PICS bags increased the number intervention participating households storing their crops (74% compared 51% in the treatment and control villages respectively). However, given that overall adoption of PICS bags was 8% for all sampled household in the treatment villages (not only intervention participators), the relative contribution that PROSPER has made to improved crop storage is small.

In the qualitative data, the main benefit reported in relation to crop storage was participants harvesting additional yield, which meant they had a surplus they could choose to store and sell when this would achieve the best price (assuming they continued to have sufficient household food supply in the meantime) (medium evidence). There were few mentions of changes to how these crops were stored as a result of BRACC activities. This was not included as a specific question in the interview and FGD schedules, which tended to focus on those interventions that had been most significant to the participant.

The few participants who did mention PICS bags, reported that these had helped protect harvested maize from weevils (limited evidence). A participant from Chikwawa explained, *"They gave us PICS bags that helped to reduce post-harvest losses which have helped to improve household food security. We now know how to protect maize from weevils"* (FGD, Male, SU, PROSPER, Chikwawa). While positive on the benefits of PICS bags, one participant mentioned receiving only one bag this year, compared to three bags last year (FGD, Female, SU and SO, PROSPER, Balaka). Another commented that *"maize stored in PICS bags does not germinate when you plant it the next season"* (FGD, Female, SU, PROSPER, Balaka).

7.1.3 Conservation and productivity-enhancing agriculture practices

Extension training and farmer groups participation were the main interventions PROSPER used to promote the uptake of conservation agriculture practices (approximately 23% and 32% of treatment households respectively).

We found participator households in the treatment villages adopted slightly more conservation agriculture practices than non-participators in control villages (2.13 versus 1.55 practices respectively). This finding applied across all the sub-groups (gender and youth status of household head plus the PROSPER wealth groups). Despite positive impacts across all groups, we found that youth-headed, female-headed and poorer households still adopted slightly fewer practices than the other groups (male headed and wealthier households), showing that inequalities still exist.

We did not detect impacts on the PROSPER resilience indicator of whether households adopted at least six conservation agriculture practices. Within the participator treatment households, only 2.6% adopted six or more practices. Statistically significant impacts were found for female and poorer (hanging-in) households but the impacts were not meaningful with adoption levels < 3% for these groups. We found statistically significant but small impacts (<6% point difference) for five of the fourteen conservation agriculture practices that households were asked if they adopted.

Based on the qualitative data, PROSPER trainings on soil conservation techniques such as crop rotation, low tillage, and mulching, in addition to making and applying Mbeya fertiliser from manure, have been adopted by many participants and contributed to increased soil fertility (strong evidence). Beneficiaries of the livestock pass-on programme, in particular, reported experiencing improved soil fertility after using livestock manure on their fields, as illustrated by a female participant in the programme: *"Farming practices like manure making has helped us greatly. We mix goat droppings with maize bran and ashes to make manure. Manure increases soil fertility and maintains soil moisture which results in high yields … Mulching also increases soil fertility"* (FGD, Female, SU, PROSPER, Balaka).

Participants' ability to apply manure as fertiliser depended on their ownership of livestock – whether given through BRACC as part of the livestock-pass on programme, through existing livestock assets, or based on ability to buy livestock, for example, as a result of improved household income from participation in the programme. As such, access to livestock acted as either an enabling factor or a barrier to applying Mbeya fertiliser. Similarly, access to funds either enabled or prevented the purchase of artificial fertiliser, depending on participants' situation. This is further explored in the access to agricultural inputs section below.

Qualitative data illuminated plentiful experiences with other agricultural practices, including sasakawa planting, reduced ridge spacing and reduced planting station planting, as well as application of manure. Early maturing hybrid seed that is drought-tolerant is also planted by those that can afford to purchase it annually, and is recommended for sasakawa planting. In focus group discussions these practices were attributed with improved food production levels.

7.1.4 Access to agricultural inputs

Cash for Inputs (see Box 3) was the primary intervention that PROSPER used for improving access to agricultural inputs (14% of treatment-village households being involved). Input fairs were the other intervention mentioned but by a far smaller proportion (3%) of treatment households. The PROSPER Markets programme also provided support to input suppliers to help shore up greater availability of high quality products on the market, but because the impacts of this initiative are market-wide, we do not expect them to be detected though the impact evaluation. However, in their own evaluation of their activities, PROSPER Markets found that 98% of the beneficiaries of Cash for Inputs did use the cash to buy inputs and productive assets, which was enabled by agro-dealers setting up new temporary outlets in remote areas and beneficiaries being willing and able to travel to those centres during September-October. However, the majority of the purchases were on maize seed, with little evidence of diversification into non-maize crops.

The impact evaluation found that households participating in the above interventions were more likely to say that the types and quality of inputs that they could access had improved, compared to the households in control villages who did not participate. We found that 55% and 58% of participator treatment households had improved access to the number and quality of inputs respectively. Whereas only 40% and 45% of non-participator control households had improved input types and quality respectively. The impacts were highest for female headed households (impact of over 20% points for both). No impacts however were detected for youth headed households for reported improvements in both the quality and type of inputs used.

Given the relatively high difference in reported participation with the cash for inputs intervention in the treatment villages compared to the control villages (Section 6), we also compared the impact on the intervention at the treatment-village level (which includes both participators and non-participators). We found positive impacts (10%-point) on both the types and quality of agricultural inputs available (51% and 54% respectively in treatment households). These results indicate that there might have been spillover impacts between treatment households (for example, through demonstration effects or improved supply through increased demand).

Based on the qualitative data, Cash for Inputs was one of the most frequently cited interventions mentioned by participants when asked what activities the programme had implemented in their community, despite it reaching a minority of treatment community members. This financial support enabled and motivated participants to purchase the early maturing, high yielding and more drought resistant hybrid seed varieties promoted by the programme (strong evidence). Participants also mentioned input fairs positively, although to a lesser extent and mostly in the context of the programme improving access to markets for its duration, by organising local seed fairs (medium evidence).

The design of Cash for Inputs directly incentivised investment in agricultural inputs by providing an incentive for farmers to come back the next year with receipts to prove they had spent the cash in this way. As a result, the link between this and greater agricultural production is strong. However other PROSPER and African Parks interventions also indirectly enabled participants to access agricultural inputs (medium evidence). With increased income, for example, from livestock or crop sales and loans from VSLA groups, some households have been able to invest in inputs including seeds and fertiliser, and occasionally larger productive assets such as land to expand their agricultural production.

However, almost as many households as those who had reported an increased ability to access agricultural inputs said that they were still unable to afford vital inputs such as fertiliser and pesticides, which were expensive (medium evidence). Many participants noted that PROSPER had failed to provide a comprehensive package of agricultural inputs by only providing enough cash for improved seeds, with a lack of fertiliser limiting the improvements in yield achieved by the improved agricultural practices applied (medium evidence). A participant in Balaka reported: *“One of the barriers to increased crop production is lack of farm inputs like*

fertilizer. PROSPER gives us cash to buy seed and not fertilizer. For us to get high yields, we also need fertilizer. Planting hybrid seed alone won't result into higher yields" (FGD, Male, SU&SO, PROSPER, Balaka). In addition, some participants reported delays to the provision of Cash for Inputs, which led to them planting new variety seeds late, or planting local variety seeds instead, thereby limiting crop yields seen as a result (medium evidence)(for more information, see the barriers section 10.2).

Ultimately, households with scarce funds prioritised meeting immediate food and other basic needs, ahead of purchasing inputs and investing in farming. A FGD participant in Chikwawa explained: *"…whenever we have money and start budgeting for food items and farm inputs, the money is never enough and we end up just buying the food"* (FGD, Female, SU, PROSPER, Chikwawa).

In addition, the programme brought agrodealers to the community to sell inputs, making them more accessible to both participants and non-participants – assuming they had the resources/funds, in part through the Cash for Inputs programme (strong evidence). This change was for the duration of the programme only, with reports from interviewees that they now have to travel long distances to access inputs again (medium evidence). A community-level stakeholder from Chikwawa explained: *"When they brought the cash for inputs they used to bring us agrodealers that would sell us the inputs, but now that the project has phased out we will have to continue going out to a nearby trading center that is 5km away to buy the inputs such as fertilizer and seed…"* (KII, Community-level stakeholder, PROSPER, Chikwawa). A different, more "real market" approach, which engaged the private sector (agro dealers) earlier, was reportedly taken in the second season, compared with the first (KII, Programme-level stakeholder).

Box 3: Cash for Inputs

PROSPER's Cash for Inputs involved providing SU participants with cash to spend at qualifying input suppliers on qualifying agricultural inputs. It took place in the 2020/21 season as a Covid-induced adaptation to the previous intervention that aimed to support access to agricultural productive resources. Input Fairs bring together agricultural input suppliers and programme participants who have vouchers to make purchases – and were inappropriate during Covid because of the need for social distancing.

Previous experiences show that cash transfers given to households in poor rural areas often result in increases in spending on agricultural inputs, although this is partly dependent on programme design factors such as the size and timing of transfers. To incentivize compliance with the spending rules, programme participants were required to submit receipts for their purchases; those who did not submit receipts would not be eligible for the programme in subsequent years. The activity was designed to phase out over time, with first time participants receiving MWK 10,000, and second-year participants receiving MWK 5,000.

The management of the process was largely smooth. Most participants received their cash on time, and the majority received a physical cash payment, although a few received a transfer through mobile money (which tended to be more problematic). Lead farmers played a key role in managing the process, including generating list of participants, arranging logistics, and collecting receipts.

The most common purchase was seed (maize was most dominant, but others included groundnut, soybean, millet, sorghum, sesame, beans and horticulture vegetables). Other purchases included pesticide or herbicides and fertilizer. Some respondents reported buying durable good inputs such as hoes or sprayers, but others said they did not buy these because they did not qualify under the rules of the programme. Quantities purchased were typically small, described by some participants as a "starter pack". There were limited examples of modest co-investments.

There was high self-reported compliance by participants with the criteria. The requirement to submit receipts to ensure eligibility for the following year was successful, even though many participants expressed that they would have rather spent the money on other things such as food or clothing, or inputs that did not qualify under the programme. The receipting mechanism thus acted as an effective behaviour "nudge" which can encourage long term resilience building. Cash for Inputs also worked synergistically with other PROSPER interventions: for example it allowed irrigation participants to procure inputs for irrigated farming; and promoted access to hybrid seed which was critical for the success of the Sasakawa planting method. It was

largely appreciated by participants, although some still felt that Input Fairs offer an advantage by reducing travel time and costs and minimising the temptation to spend cash on other things.

For more information on Cash for Inputs, see the PROSPER Intervention Learning Brief[37].

7.1.5 Access to agricultural output markets

The PROSPER interventions that aimed to improve access to agricultural markets operated mostly above the village level, meaning that our impact evaluation design would not be suited for detecting differences between treatment and control villages. The two household-level interventions used by PROSPER included marketing clubs and smallholder agricultural market systems. Only 4% and 2% of treatment households respectively said they were involved in the interventions.

We found small but statistically significant differences in improved access to markets between participants in the treatment villages compared to non-participants in the control villages (40% and 33% respectively). At the sub-group level, female headed households were the only cohort who had statistically significant impacts (47% and 32% for treatment participators and control non-participators).

In the qualitative data, participants complained repeatedly and consistently of a continued lack of access to reliable markets for their agricultural produce (strong evidence). Physical access to markets in rural areas was a challenge, and many participants reported a continued reliance on vendors who bought their agricultural produce at low prices that limited their profits (strong evidence). In this regard, participants reported being especially disappointed with the programme, as many of the participants had understood that it would help them access better markets for their crops. They believed that PROSPER had failed to fulfil its promise to help them access markets due to the early termination of the programme (medium evidence). For example, a participant from Mangochi reported, *"PROSPER told us to keep the maize and they will identify a market for us and before it even materialised it is when they came to tell us that we are closing the project because our donors have stopped supporting us due to Covid. And we asked them, "so, where are we going to sell our maize?" and they said things haven't turned out the way we expected* (FGD, Female, SU, PROSPER, Mangochi).

While the feedback was generally negative on any changes to access to agricultural markets, there were also some hints of positive change under both PROSPER and African Parks.

The programme created a market for certain outputs and assets, for the duration of the programme only (limited evidence). This included buying honey from participants based in Nkhotakota under the African Parks programme and goats for the pass-on programme in Balaka under PROSPER, thereby contributing to the local economy. An African Parks participant reported, "We had an easy access to markets as we were able to sell our honey to African Parks. We did not have to look for a market for the honey so we realised profits without struggling" (SSI2, Older, Female, HI, African Parks, Nkhotakota).

As noted, in general, markets for crops did not materialise as participants had anticipated. However, some participants reported improved markets for their agricultural outputs – whether due to enhanced knowledge on where to sell produce more profitably, increased demand for (and supply of) diversified outputs and/or more choice on who to sell to (limited/medium evidence).

> *"The programme taught us about marketing. They taught us that marketing is about us looking for places we can sell our products. After harvesting sesame people did not suffer because they had already known where to go and sell the sesame. They were going to Dembo trading Centre and ADMARC was also buying some crops… In the past we would just sell our crops anyhow as we were not doing market research, they would buy from us at a very cheap price. The vendors would just come into our household and we would sell at whatever price they are buying the crop produce. But now we are able to do market research and find out the market where they are buying the same crop produce at a relatively higher price and that is where we are taking our crops to sell".* FGD, Male, SU, PROSPER, Chikwawa

Some participants reported being in a stronger position to hold out for better prices for their produce, due to improved food security (medium evidence), to aggregate crops for sale (limited evidence), and to agree minimum prices as a community (although not all adhered to this) (limited evidence). A participant from Nkhotakota explained, "*Previously vendors were selling at a very low price because they were taking*

advantage of our vulnerability and lack of knowledge. They would come to buy during the time households lacked food and give them money so they could come take the crops at harvest time. But now because of the capacity building, people only sell at harvest time because they are not as vulnerable as they were before. They are able to determine the conditions for selling. Vendors no longer dictate prices because as a community, we agree at what price we will sell our gods though others still sell at low prices behind our backs".
SSI3, Female, High Income, African Parks, Nkhotakota

7.1.6 Livestock improvement practices and pass-on support

PROSPER's livestock pass-on scheme entailed providing 3-4 animals, most commonly goats but occasionally pigs, to a small number of households in each targeted community. When the livestock reproduce, the offspring are to be "passed on" to another group of households, who in turn pass their offspring to a third group. Thus, households can be participants either as direct recipients of livestock, or as one of the two pass on groups. All households targeted for training in animal care, and generally were required to build a kraal (enclosure) for the animals as a precondition of receiving them.

As part of PROSPER's livestock pass-on scheme, 7% of treatment-village households reported receiving livestock directly from PROSPER (as part of the first-pass on round), whilst 5% said they received livestock passed on from another household (second-round). The other livestock improvement related intervention mentioned by respondents included training/support from community animal health workers (4% of treatment households).

We used ownership of a kraal as an outcome to measure adoption of livestock improvement practices (as mentioned above it was a pre-condition for involvement in the pass-on-scheme). We found large impact differences between participator treatment households and non-participators in control villages (47% and 12%) respectively. Positive impacts occurred across all sub-groups, with highest impacts for female-headed households. The results indicate that without the intervention only 7% and 4% of female and youth-headed households would have built kraal enclosures. Male-headed and the wealthiest households (stepping-out) had a higher percentage of participator treatment households owning enclosures (48% and 47%), compared to 29% for youth-headed households.

Given the relatively small percentage of participators in the treatment villages (<7%) at the midline stage of the evaluation, we did not find large differences at the overall treatment versus control household levels (see Box 4 below). Statistically significant impacts however were found for female-headed households but the impact difference was small.

There is moderate evidence that the provision of livestock through the pass-on programme helped many households who otherwise would not have had sufficient capital to get into livestock farming. For this reason, the programme was particularly popular. In addition to providing a valuable asset to many households, the livestock pass-on programme improved household knowledge on livestock management best practices. Many participants valued the training on how to construct goat barns and raised kraals helped to protect livestock from pests, diseases, and floods. These improved livestock practices were also subsequently adopted by non-participants (due to demonstrated effectiveness).Access to manure from livestock, combined with training on organic fertiliser production, also had the dual benefit of improving crop yields while reducing household spend on agricultural inputs (medium evidence). Furthermore, participants appreciated the accessibility of trained animal health extension officers/paravets, who were permanently embedded in the community, and could provide vaccinations and advice on how to care for livestock (*versus* having to travel to faraway veterinary clinics). This also had wider spillover effects in communities. The many benefits of the livestock pass-on programme were shared by female participants in a FGD in Chikwawa:

> *"My crops did not do well as a result of lack of manure in the past, but after receiving goats from Goal Malawi, I used goat manure on my farm. Crop production has improved tremendously as a result and what I produce is sold to buy basic needs like soap and other nutritious food for my health. I also don't spend much on inorganic fertilizer and what I save is being used to improve my livelihood"*

> *"Before I received goats from Goal Malawi, I used to do casual work from morning till late just to buy food and I would eat one meal per day. Today, I just sell my goats to buy food for my family. I am no longer*

doing casual work as a result of owning goats which provide me with what I need in times of food stock shortage."

"The goats I received are a source of prestige at my household and can support my needs when I need them." FGD, Female, SU, PROSPER, Chikwawa

In addition, the livestock pass-on programme reportedly created economic benefits for those selling the goats to the programme:

"We distributed about 5000+ thousand goats across the district to about 1000+ households. That is a very big achievement for the district.in the next 3 to 5 years, the population of small stock, most especially goats will increase and even the lives of people under the pass on programme won't be the same in the next 5 years. On the other hand, the 5000+ goats were bought within Balaka which means they have also made an economic impact of those people who were selling the goats. They were buying them at very good prices. PROSPER has made a huge difference for us an office and even Balaka as a district". SSI1, District-level stakeholder, PROSPER, Balaka

Box 4: Livestock pass-on

PROSPER's livestock pass-on intervention primarily targeted SU and SO households who could make the necessary co-investments to care for the animals and would be less likely to sell them out of desperation, although a small proportion of HI households also participated. As well as being in the target wealth category, to be eligible households had to construct a kraal, or elevated holding pen, at their own cost

The process of identifying potential participants was typically done by communities, with trained lead farmers, extension officers and chiefs facilitating the process and assisting with final selection, in partnership with the Community Animal Health Workers (CAHW).

Table: Composition of participation in livestock pass-on by wealth category

Wealth Group	Percent of Respondents Reporting Participation in Livestock Pass-on
Hanging In	7%
Stepping Up	18%
Stepping Out	18%

Selected participant households received livestock, usually 3-4 goats, although some households received pigs. The majority of animals distributed were female, with a smaller number of male animals were shared among households for breeding purposes. To address risks related to livestock illness, PROSPER also provided training and starter supply packs for local animal health workers, to enable them to provide vaccines and other care for the livestock. Participants also received training in caring for the livestock, using their manure for farming, and nutritional benefits of livestock.

The livestock pass-on was extremely popular with participants, in-keeping with the commonly-cited preference to receive tangible assets. Participants reported an increase in productivity assets; generation of manure for crops; the benefits of having an asset to act as a buffer against shocks, food insecurity, or unexpected expenses; and improved nutrition (consumption of milk products). At community level, there were spillover benefits from the CAHW and adoption of animal kraaling to collect manure, as well as the growth in markets for animal products. Annual Survey quantitative data did show higher manure use among livestock pass-on recipients compared with PROSPER community members who were not participants in the livestock pass-on programme, and that they were more likely to consume milk, although the Impact Evaluation did not find significant impact in these areas. However quantitative data showed little difference between livestock pass-on participants and others in terms of higher level outcomes like coping mechanism use – which may be a function of the early timing in the programme and the fact that households are not allowed to sell livestock until they have been able to pass on offspring.

For more information on Livestock pass-on, see the PROSPER Intervention Learning Brief[38].

7.2 Care groups and nutrition training (outcome 1)

The non-agricultural interventions within outcome 1 included the provision of nutrition and sanitation information (19% of treatment village households) along with the promotion of care group membership and activities (5% of treatment households).

For the impact evaluation (quantitative) study we lacked relevant survey data on the adoption level outcomes of care groups or sanitation information. We therefore only assessed adoption outcomes for households who received nutrition information. We found that households receiving nutrition information had a statistically significant household dietary diversity score (HDDS) (the number of food types that households consume, scored 0 - 12). The impact however was relatively small, with on average only one extra food group consumed. The impacts were highest for female and poorer (hanging-in) households which indicates good targeting by the programme. We did not find statistically significant impacts on the food consumption score index. We would expect this result given that nutrition information alone is unlikely to increase consumption but it could increase dietary diversity.

Based on the qualitative data, participants were very positive about the benefits of the training and support they had received on how to improve their household's sanitation and nutrition (strong evidence). These tended to be viewed as activities that were more accessible for all, compared with, for example, the cash for inputs programme (medium evidence).

Improved dietary diversity at household level was supported by the availability of a wider range of foods due to diversified agricultural production, supported by the cash for inputs programme, and via the backyard vegetable gardens introduced by the programme (medium evidence). Conversely, food scarcity and a lack of money to buy additional food, especially during the lean season and in the face of shocks and stressors, limited participants' ability to apply their new knowledge on the importance of eating from each of the six food groups (medium evidence). For some, the priority was meeting basic needs and having enough food to eat.

As mentioned previously in relation to spillover effects, a key enabler for the adoption of improved hygiene and sanitation practices was the enforcement by local leaders, through the use of bylaws and fines for those who do not have a latrine and for open defecation (medium evidence). This was also supported by the programme continuing messaging and activities where other, previous interventions had left off, building on their progress in changing perceptions and behaviours (limited evidence). The programme's sanitation and hygiene-related interventions have had far reaching health benefits, including the reported reduction in waterborne diseases, such as cholera (medium evidence). A FGD participant from Chikwawa summarised, "*Today every household has been trained on proper ways of using and owning a toilet. Even children now use a toilet. Each household has now a toilet with a wash station, rubbish pit, utensil rack, and a clothes line as trained by our extension worker. Cholera is now gone."* (FGD, Female, SU, PROSPER, Chikwawa).

7.3 Financial services (outcome 2)

BRACC interventions related to access to finance included promotion of village savings and loan (VSLA) groups by PROSPER and African Parks, and graduating VSLA participants into microfinance loans offered by PROSPER partner CUMO. We assessed the impact PROSPER had on increasing the use of financial services for treatment households participating in PROSPER financial service interventions. The interventions included participation with either VSLA groups (35% of treatment households), weather/crop insurance (2%) or microfinance institutions (8%). For the impact evaluation, these households were compared to households in control villages who did not participate in the interventions.

7.3.1 Access to savings, cash and loans through VSLAs

With the impact evaluation study we found positive impacts for participator households, showing increased adoption of financial services and building savings as summarised below:

- The number of loans taken by treatment households was higher than control village households on average (1.36 compared to 0.5 loans respectively). Female headed households took slightly more loans than male headed households, however we found no impacts for youth headed households (likely due to the small sample size for this cohort). The contribution that PROSPER has made to increasing access to loans across all treatment households is not likely to be large given that the average for all treatment households is 0.86 loans compared to 0.75 for the control villages, with 46% and 42% accessing any type of loan respectively.

Other implementers have likely also made a significant contribution to the relatively high uptake of loans.

- We found positive impacts for the percentage of participator households making deposits over the past year (60% compared to 10% respectively), including female headed and youth headed households plus poorer (hanging-in) households. We also found small impacts for households reporting that they had sufficient income to make savings (17% and 10% respectively). The overall percentage of households (participators and non-participators) being able to make deposits (29%) in treatment villages and build savings (13.7%) is still relatively low but PROSPER has likely made important contribution to increasing the levels (the VSL intervention could have reached 35% of households).
- We however did not detect impacts (for building savings and deposit increases) when comparing all treatment and control village households. We note that our estimates are likely downwardly biased because of potential spill overs from PROSPER treatment to control villages.

Based on the qualitative data, there is strong evidence that the VSLAs introduced by PROSPER and African Parks have increased access to cash and credit within beneficiary communities. However, it should be noted that some participants were already members of VSLA groups before this programme began. Participants' feedback on the VSLA groups was overwhelmingly positive. They reported that the VSLA groups had made cash more consistently available in the community through the ability of members to save and then access funds from VSLAs during the annual share-out, as well as easily take out loans as needed for business investments, asset purchases, or to meet emergency needs, such as to purchase food when crops had failed.

> *"We have seen improved cash flow and consistency in our community because of VSLA group's initiative … Since we started these interventions under PROSPER, we have seen that at least cash is available almost all the time … now we are able to have money even during lean season when all our agricultural activities are not so active. On the same loans are also easily accessed to those who are in these groups, in times when there is an immediate need of money".* FGD, Male, SU&SO, PROSPER, Phalombe

Respondents noted the accessible nature of the VSLAs compared to other sources of finance in their communities, such as banks, individual money lenders, and other microfinance institutions (medium evidence). Participants mentioned that two key benefits of the VSLAs were the low interest rates and the flexibility of the repayment schedule. In places where CUMO was offering larger amounts than smaller VSLAs, this was appreciated although it was often accompanied by a less flexible repayment schedule and higher interest rates.

> *"If we are so realistic in our comparison between the impact of participating in VSLA on households against other types of finance then obviously our preference is on VSLA because the interest rate is very low giving an opportunity to everyone to manage repayment whilst these other types of finance interest rate is very high, once you fail to pay even just within a period of one month they come and confiscate your assets which also brings denting of reputation the community as well disrespect and defamation. Therefore we prefer so much to VSLA groups on household levels than any other source or types of finance when it comes to savings and loans".* FGD, Female, HI, PROSPER, Phalombe

Although many participants lauded the accessibility of the VSLAs relative to other sources of finance, several participants noted that the savings groups were still unreachable to many community members who did not have the start-up capital necessary to invest in the VSLA groups and make contributions reliably each week (medium evidence).

There were several reports from the FGDs that there was higher participation by women than men in the VSLA groups. Many female FGDs mentioned that the VSLAs prefer women members as men often take out loans and fail to pay them back. There is also some indication that VSLAs can be more beneficial for women, particularly single and widowed women, by being more accessible regardless of marital status, and giving them greater economic independence through a stable source of income (limited evidence).While participants reflected that participation in the VSLA groups could improve family relationships by helping solve financial problems within households, they also frequently noted the negative intra-household consequences that could arise. There was widespread acknowledgement of domestic conflict and failed marriages following spousal disagreements over unpaid loans, or arguments over how money from share-outs should be spent. In many instances, intra-household conflict arose when a spouse took out a loan without the consent of the other partner, and then the VSLA group came to confiscate household assets following failure to repay the loan. In

other reported cases, men misspent loans or share-outs on drinking or other women. There were also indications that some husbands disapproved of wives' newfound economic independence following their participation in the VLSAs.

Box 5: Access to finance

Village Savings and Loans Associations (VSLAs) already have a long history in Malawi. VSL groups fill financing gaps by providing affordable and accessible savings and loan products in rural communities. Formal lending is limited and often inaccessible, while informal lenders, are viewed as having expensive and sometimes predatory loan terms. Theoretically, VSL participation is inclusive, and respondents cite a wide range of people participating, including youth and people with disabilities. Women are reported to be the majority of participants, and are sometimes viewed as better borrowers, but some may be forbidden from joining by their husbands. Poor households often cannot afford to buy into VSL groups, and female-headed households may struggle to have the time to participate.

PROSPER is credited with improving VSL functioning and participation rates, and for having a strong community-based trainer model and content of training. There was evidence of some graduation into CUMO microfinance loans, but higher interest rates and more rigid loan terms are seen as barriers by some VSL participants. Overall, VSL participation operated as expected, with respondents describing positive impacts in the areas of accessing basic needs, improved income, and investing in assets. In many cases, VSLs have enabled participants to invest in sizeable assets such as bicycles or homes. Participants also described contributions to improved resilience, such as ability to access loans to cover basic needs in the case of a shock, and reduced reliance on unsustainable natural resource extraction as livelihoods, and social improvements such as less stress and greater economic empowerment, especially for women.

It was acknowledged that outcomes for VSL participation are not always positive; negative outcomes are largely related to failure to repay loans, and intra-household conflicts. There was wide agreement among respondents that transparency and collaborative decision-making is critical. Both men and women are reported to engage in harmful practices with respect to participation in VSL groups. Women may not disclose their borrowing, while men may make unilateral decisions about loan or payout use. However, where VSL participation is approached with transparency and mutual decision-making, respondents describe overwhelmingly positive impact on household relationships, including greater cooperation, better problem solving due to having additional resources, less burden on men as the sole providers of cash income, and greater respect for women by their husbands.

For more information on access to finance, see the PROSPER Intervention Learning Brief[39].

7.3.2 Improved financial literacy and management

Financial and business management trainings were an important addendum to the establishment of the VSLAs. There is moderate evidence that PROSPER trainings have helped many households participate responsibly in the VSLA groups, while also improving their financial literacy with regard to spending, saving, and business investment. Many households reported limited knowledge of budgeting and financial management prior to participation in PROSPER. Participants reflected that the trainings helped them to understand the importance of saving money in the VSLAs and investing in income-generating activities such as small businesses. Trainings VSLA members in the proper use of the VSLA groups also helped to ensure that members only took out loans that they could reliably pay back.

> *"Before Goal Malawi came, I did not have any idea on how to run a business or VSLA investment. Through training and participation in a VSLA, I have learnt how to save, budget and invest my money in businesses and VSLA for a profit. I am now conscious of VSLA needs and requirements as I make well thought of budgets so that I don't spend my money recklessly".* FGD, Female, SU, PROSPER, Chikwawa

7.3.3 Access to crop insurance

To support adoption of insurance, PROSPER has promoted subsidszed access to crop insurance in target communities. In the 2020/21 season, PROSPER offered area yield crop insurance, supplemented with a basis risk fund mechanism, to programme participants (for details, see BRACC Hub's Intervention Brief: Crop Insurance). Participant uptake of PROSPER's crop insurance programme was far less than that of the VSLAs. The quantitative survey result showed that only 4% of participator treatment-village households, and 2% of all treatment village households, accessed insurance. PROSPER therefore only made small contributions to driving uptake of insurance.

The qualitative study found that even though the cost of crop insurance was heavily subsidised by PROSPER (participants paid MK 3,000 toward the full cost of MK 12,000), many participants were still unwilling to purchase the insurance. The reported reasons for not buying insurance included a lack of understanding of how the insurance would work, and a distrust of insurance companies based on negative experiences with not being compensated under previous crop insurance programmes, such as WFP's Food for Assets (FFA) insurance programme. Those who did choose to purchase crop insurance did so hoping that the insurance would cover crop losses due to drought, erratic rainfall, or pests.

> *"As rural people, it is hard for us to understand why we need to buy insurance, that is why there are very few of us in this community that have ever bought insurance. We have also had a bad experience with insurance which discourages other people from participating. It has been 3 years now since people under FFA bought crop insurance but they are still suffering since they were not compensated".* FGD, Male, SU, PROSPER, Chikwawa

FGD participants' attitudes toward the PROSPER crop insurance programme were overwhelmingly negative, as no households reported having received compensation, despite widespread mentions of drought, pests and poor harvests. Participants were deeply disappointed and in many cases angry at the lack of pay-out. They mentioned that the insurance company had come to their villages to do a damage assessment, but since then participants have either received no feedback from the company regarding whether they are eligible for compensation, or else have not received clarification on when they would receive it. Households complained of a lack of communication from both PROSPER and the insurance company, leaving many individuals feeling like they had been tricked and cheated of money that they could have used to meet immediate household needs. Some households reported experiencing acute food insecurity following the failure of their crops, making them further despondent about a lack of timely pay-out and delays in getting a response from the insurance company.

> *"What has happened (not being compensated) made us lose interest in insurance and we are highly disappointed because we paid money that we worked hard for, the money would have assisted us in our household needs. We took that money and bought insurance, now they are coming with different stories (GOAL Malawi saying they did not take our money), which has disappointed everyone. What they did is daylight robbery … From the time they came to do damage assessment in April/June to the time they came for the closeout meeting in July, till today, there is no news from them. In my view, I think maybe the Insurance organizations just come to the rural communities intending to steal from us … They betrayed our trust and they have abused us"* FGD, Male, SU, PROSPER, Chikwawa

> *"So far the challenge that we have seen with this insurance is late payment of the pay-out. Our crops did not do well so we know we need to receive this pay-out. But till date we haven't received anything yet it is at a crucial time like this when we have run out of food in our households that we needed the insurance money to bail us out. Going forward, this could be improved by timely communication of what is happening as well as timely pay-out of the insurance money to beneficiaries"* FGD, Female, HI&SU&SO, PROSPER, Balaka

A minority of participants, however, remained open to the idea of crop insurance, and hopeful that it would help cushion them against losses from future shocks.

> "*The climate shocks would affect us if they would reoccur for several years. Otherwise, if it's only a year, they would not affect a lot of people in the community because they insured their crops and people would not give up on a technology because of a climate shock, they would try again the other year."* SSI3, Female, HI, PROSPER, Mangochi

In addition, a lack of information during the insurance enrolment process and following the damage assessment, including the name and contact information of the insurance company, as well as information regarding under what conditions compensation would be given, made participants feel powerless to escalate the issue. The abrupt closure of the PROSPER programme also left many participants unsupported in their attempts to find a resolution.

> *"We experienced some shocks especially worms which attacked our maize at a very tender stage when crops where just within knee high, when the matter was reported to Concern Worldwide representatives came for an assessment, they did it and confirmed about the situation being eligible for compensation through crop and weather insurance activity under PROSPER programme … Surprisingly since then none of them has ever visited us of shared any kind of update till date until we got the news that PROSPER programme implemented by Concern Worldwide has phased out. We asked some of the staff members on what could be the way forward in respect to the compensation since we already paid our deposit or membership fee and crop assessments were already done but we never received any tangible feedback".*
> FGD, Female, SU, PROSPER, Phalombe

In most cases, enrolling in the insurance programme did not appear to change decision-making around agricultural planning, even though many households reported decreased perceptions of risk due to their crops being insured. In only a few cases did participants increase their land area under cultivation after enrolling in insurance.

Box 6: Agricultural insurance

Index insurance products are increasingly recognised as an important component of a portfolio of resilience-building interventions as they provide a buffer against unpredictable or severe shocks where the impacts cannot be reasonably reduced through other risk reduction measures. Rather than being dependent on individual loss valuations, index insurance is triggered by objective variables, such as weather conditions, or area production levels. This has several advantages: the triggers can often be monitored remotely and it reduces the moral hazard facing policyholders as it is not the failure of their crop that is insured, but rather the failure of weather conditions.

As in many other rural contexts with limited financial literacy, PROSPER's agricultural insurance intervention faced challenges. In the early stages, lack of cash and limited interest impeded uptake. Towards the end of the season challenges included poor understanding of payout eligibility, inadequate structures for accountability and delayed payouts – all of which were underpinned by poor communication and coordination between the PROSPER team and participants. These challenges undermined confidence to purchase again – and so future attempts will need to address trust issues and design the products to better meet community needs.

The agricultural insurance programme had limited impact on households. Some participants reported increasing the amount of land cultivated, or intensifying investment in their crops, as a result of having insurance. One focus group reported receiving payouts in 2020, reflecting low harvests in the 2019/20 growing season, but no respondents reported receiving payouts in 2021, although some said they had been told they would be eligible for them. Many respondents felt that poor harvests in the 2020/21 season meant they should have received payouts, and many respondents reported that they felt cheated due to the lack of payouts and lack of communication from the insurance provider regarding the status of payouts. In some cases, these feelings bled over into negative social impacts, such as participants reporting being ridiculed by others in their community for deciding to invest in insurance.

For more information on agricultural insurance, see the PROSPER Intervention Learning Brief[8].

7.4 Non-agricultural business involvement (outcome 2)

There is some indication from both the quantitative and qualitative data that the PROSPER programme has helped some participants start or expand non-agricultural businesses. Sales from increased crop yields as well

[8] Venable, E. 2021. Index and area yield agricultural insurance. PROSPER Intervention Learning Brief.

as livestock provided investments for starting and/or growing small businesses.

Access to finance from the VSLA groups and Microfinance Institutions (MFIs) was particularly crucial to most households' ability to start or improve their business. For the impact evaluation study we assessed the impact of VSLA group and MFI participation on the extent to which treatment households got involved in new non-agricultural business opportunities. We expected participation in these interventions to increase uptake through being a financing mechanism for non-agricultural business uptake.

We found positive impacts for participator households: the percentage of households with a non-agricultural business was higher for participator treatment households (51% compared to 34% for non-participator households). The impact differences were greatest for female headed households (25% points) and the poorest households (within the 'hanging-in' category, 20% points). We however did not detect any impacts when looking at the difference in the number of enterprises owned, across all sub-groups.

For assessing the impacts across all households within the treatment villages, we did not find statistically significant impacts for all households in the treatment villages (Table 11). This is likely because of the high percentage of control-village households participating in interventions implemented by other implementers (e.g. VSLA). The percentage of households starting a non-agricultural business is relatively high (42%). Interventions implemented by PROSPER and other implementers have contributed to this but it is difficult to know the size of the contribution has made with the impact evaluation data alone.

In the qualitative data, participants frequently reported either taking out a low-interest loan, or else saving the money earned from farm harvests into a VSLA group and then using their share-out to start a small business, such as donut or fritter stands, or small shops (medium evidence). Participants also recognised the value of reinvesting part of their profits from their new business back into the VSLA group, where possible. Several participants found the finance and business trainings delivered as part of the implementation of the VSLA groups to be valuable in giving them the knowledge and skills necessary to run a business and thereby have a secure source of income even during the lean season or when crops failed (limited evidence). One female participant who received training from African Parks used it to proactively construct their own beehives. Another said:

> *"Through the same VSLAs and the knowledge they imparted to us, we are able to start small scale businesses that will help sustain our income levels. When GOAL Malawi informed us that the programme phased out due to suspension of the aid due to COVID, we did not worry a lot because we knew that through the VSLAs we have an alternative source of livelihood"* (FGD, Male, SU, PROSPER, Chikwawa).

Conversely, lack of capital for start-up resources was the main reason participants gave for not starting new income-generating activities and diversifying livelihoods (strong evidence). Lack of funds also limited the level of investment in existing farming activities and businesses – especially if existing funds were being used to buy food in times of food shortage, for example, after a shock had occurred, thus limiting earnings further as that investment was not made (strong evidence). A participant from Chikwawa, who graduated to a different wealth category during the lifespan of the programme, explained, *"Most people are interested in businesses, however the challenge is that we mostly get hit by disaster such as floods and drought, so instead of people investing their income in other activities that could earn them money, they rather spend their money on food since they usually have no food". (SSI3, Male, SU, PROSPER, Chikwawa)*

7.5 Climate information and DRR (outcome 3)

The two main interventions implemented by PROSPER at the household level included radio clubs and integrated climate services (1% and 12% of treatment village households respectively). Integrated climate services involved extension staff working with farmers ahead of the agricultural season to analyse historical climate information and use participatory tools to develop strategies for managing their livelihoods accordingly.

For the impact evaluation study, participating households of the above interventions had positive impacts on access to climate information compared to non-participator control-group households (85% and 40% respectively); the usability of climate information (81% and 36% respectively); the timing of the information (80% and 36% respectively) and the quality of information (77% and 34% respectively). Impacts were similar

between sub-groups for most outcomes. Importantly we found positive impacts on whether climate information was used (63% versus 43% for participator and non-participator households respectively).

Across all sampled treatment households (participators and non-participators) we saw small positive impacts on climate information access and usability. However, we did not find positive impacts on the quality, timeliness, whether it was used, and whether fewer negative coping strategies were used. These findings are in alignment with what we would expect because we know that the percentage of households reached with the PROSPER household-level interventions was relatively small (12%). The findings show PROSPER's household level interventions had the potential to increase access and use from relatively low levels (~50%).

The access and use of climate information to inform decisions and adaptations did not naturally surface through the qualitative data. This was not a specific focus of the question schedules. Several African Parks participants, based in Nkhotakota, mentioned that they are not affected by climate-related shocks and stressors (limited evidence, SSI3 only).

7.6 Natural resource management (outcome 3)

Beyond adoption of climate smart agriculture practices discussed in Section 7.1, which found a small but significant impact on the number of practices adopted, the quantitative survey did not contain indicators related to other areas of natural resource management. However, the qualitative data found evidence of impact for several outcomes in this area.

7.6.1 Reforestation and reduced deforestation

The PROSPER and African Parks programmes have increased reforestation in beneficiary communities (strong evidence), and there is moderate evidence of reduced deforestation rates. Community-level enforcement mechanisms were a key enabler in halting deforestation. Participants mentioned the formation of local bylaws that restricted tree cutting, set rules around sustainable forest management and replanting, and imposed fines on non-compliers.

> *"We have reduced deforestation because of bylaws which are in place. We are not allowed to fetch fuelwood in our surrounding forests. We guard ourselves, once caught cutting down trees for firewood, we pay penalty of Mk5000 and plant 5 trees and water the trees daily until trees are fixed. We fetch already dried firewood to use in our homes. We are not allowed to cut down trees even the ones in our homes, we have to report before to village chief, forest committee and natural resources committee to authorize and advice how to cut down the tree but there must be valid reasons. If one tree has been cut down then we plant two as replacement".* FGD, Female, SU, PROSPER, Chikwawa

Despite compliance mechanisms playing an important role in reducing deforestation, there also appears to have been a wider cultural change within beneficiary communities toward valuing forests and understanding the need to practice sustainable forest management, as well as environmental management more broadly (medium evidence). PROSPER trainings were integral to this mindset shift, with participants reporting that they now are sensitised towards the importance of conserving trees and have the knowledge necessary to plant and care for trees.

> *"Before we did not have the habit of planting trees in our homesteads as we did not have the necessary training and support. But with the coming of Goal Malawi and its watershed interventions, we have changed our behaviour as we are now more involved in planting more trees in our area. As advised by our extension worker and lead farmer we have stopped cutting trees unnecessarily for firewood or charcoal as trees are beneficial to the environment and our lives"* FGD, Female, SU, PROSPER, Chikwawa

Non-participant households have also decided to take part in forest management activities (spillover effect) after seeing the benefits of reforestation, such as decreased erosion and protection from strong winds (medium evidence).

> *"Before Goal Malawi trained and provided tree seedlings us, many households in the area used to cut trees carelessly for various uses. Today many have abandoned this act as they have seen how important trees to the environment. They have seen how active we are in planting trees and have joined in to support this initiative".* FGD, Male, SU, PROSPER, Chikwawa

Reforested areas around villages have also provided a local source of firewood and building material that has helped households reduce the need to cut trees in new areas (medium evidence). In Nkhotakota district, improved forest cover has created an environment supportive of mushroom farming, in turn providing an alternative source of income (limited evidence).

Livelihood diversification due to access to finance through VSLAs, as well as increased incomes from improved crop yields and crop diversification, have reduced dependence on natural resources for some households, resulting in lower rates of deforestation (limited evidence). As described in one FGD, "*Since we are producing more and our daily needs are met, we see no need to cut down trees for firewood or make charcoal to earn a living or buy food*" (FGD, Female, SU, PROSPER, Chikwawa). Here, the layering and linking approach of the programme has been important, with the environmental management activities working hand-in-hand with the agricultural practices interventions.

Many participants reported a desire to continue with tree planting following what they perceived as positive climatic impacts of the reforestation programme. Respondents in the qualitative data collection often attributed improved climate regulation in their local areas, including increased rainfall, cooler temperatures, and increased shade, to the reforestation projects (medium evidence).

> *"We now have a restored forest due to the tree planting programs, this forest now has impacted our climate positively because we now have better/regular rains … with the help of the restored vegetation we now breath fresh air and the trees now help regulate the temperature so we no longer have high temperatures as we used to in the past".* FGD, Male, SU, PROSPER, Chikwawa

However, a participant from Balaka suggested the local climate had started to improve before the BRACC programme, "*We are seeing most of the benefits because most of the interventions they were implementing are a continuation from other projects that phased out. For example, in environmental management, a tree cannot grow in two years and start improving the rainfall pattern…"* SSI3, Male, SU, PROSPER, Balaka

7.6.2 Improved water access for agriculture

According to participants, the environmental management and conservation agriculture activities implemented by PROSPER have also had some impact on water availability for agriculture. Participants mentioned that mulching, tree planting, and the construction of contour bands, swales, and check dams had increased water retention in agricultural soils. Swales, trenches, and check dams were reported as being particularly helpful in conserving water during dry spells, as well as increasing the availability of water that could be used for irrigation (medium evidence). Some participants also reported that planting trees and grasses along riverbanks was helping prevent rivers from drying up (limited evidence). Improved access to water for agriculture, in turn, enabled participants to harvest despite a lack of rainfall (strong evidence).

> *"At first water was a problem, our rivers were getting dry a few months after the rain season, we had to be digging wells to find water and even the wells were drying up but after constructing water harvesting structures like swale, constructing check dams, now water is available for a longer period after the rains stop. The wells still dry up but after a longer time".* FGD, Female, SU, PROSPER, Balaka

> *"The dams that were constructed are being used for irrigation through water pumps which are helping us to improve our crop productivity and income levels and build our adaptation to climate change since we are no longer relying on rain-fed agriculture … The canals are also being used for irrigation, we are transporting water from the river to our farms through the canals".* FGD, Female, SU, PROSPER, Chikwawa

8. Outcomes and Impact: what the BRACC programme has achieved

Summary

In the area of intermediate outcomes, which contribute to resilience capacities, the impact evaluation and qualitative data showed evidence of positive impact of BRACC intervention participation on crop diversification, increased crop sales, increased livestock assets, and reduced use of negative coping strategies. Areas with no, or inconclusive evidence of impact included crop yields, women's decision-making, and erosion and soil control as a result of natural resource management. In the case of yields, there was a high degree of dissonance between the qualitative and quantitative data, with respondents in qualitative surveys often reporting yield improvements, but the impact evaluation finding no significant impact on yield, even when comparing results for participants to similar non-participants in the control group. This may reflect non-representativeness of the qualitative respondents, as well as high variation in quantitative crop data making it harder to detect impact.

For high-level impacts, such as nutrition and food security, incomes, and resilience of outcomes in the face of shocks, less impact was expected, given the modest time the programme had be ongoing at the time of the 2021 Evaluation. However, both qualitative and quantitative approaches found evidence of positive impact on income. Some evidence of impact on food security and nutrition was found, particularly from qualitative sources. There was also evidence of improved outcomes in the face of drought shocks for a few outcome indicators.

Evidence suggested that barriers related to gender and poverty continue to affect intermediate outcomes and high-level resilience impacts. Large gaps in yield outcomes remained for female-headed households, and households in the lowest income categories. Female-headed households also had worse outcomes across a number of resilience-related indicators. However, for some outcomes, programme impact was greatest for female-headed households and poorer households.

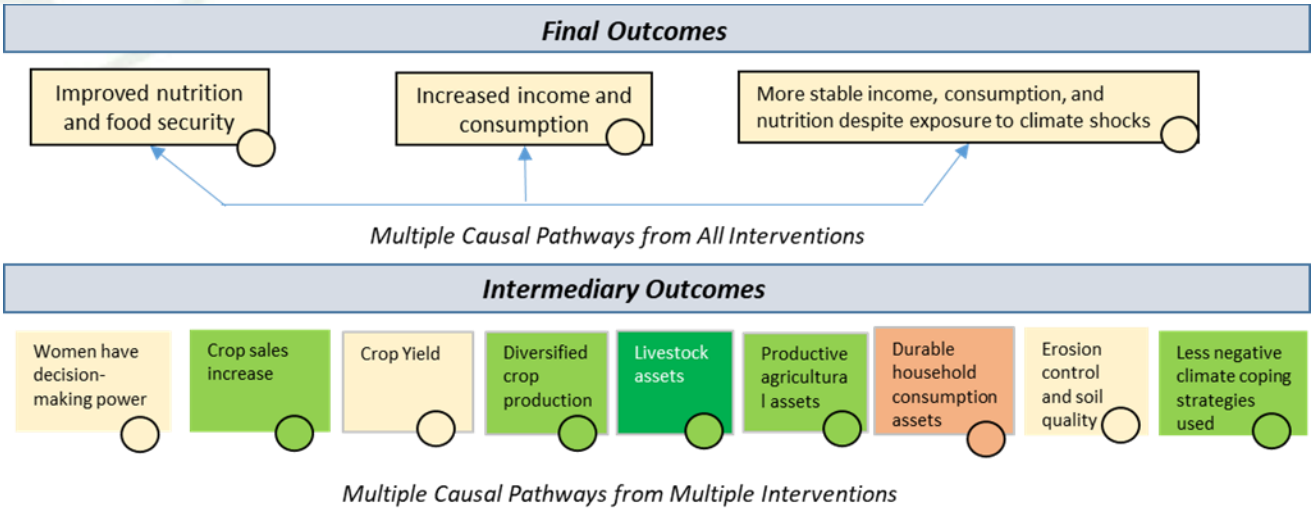
EQ1. To what extent did the programme contribute to strengthening climate resilience/adaptive capacity to shocks, taking into account a changing climate, at the household, community and national levels? In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups)

EQ 1a. What difference has the programme made to the climate resilience and poverty reduction of participants at the individual/household level? For whom, Why? How? In what contexts?

In this section, we analyse the impact of BRACC on outcomes further along the Theory of Change, including intermediate outcomes that are hypothesised to result from adoption of technologies and practices, and broad, long-run impacts on resilience and household welfare ("final outcomes"). As with Section 7, findings are predominantly drawn from qualitative data and the impact evaluation's quantitative data. Because of the challenge of high shares of control community households reporting participation in PROSPER activities, the impact evaluation looks at outcomes in these areas using two approaches: comparisons between participant households and non-participants in control communities, controlling for key factors ("participant analysis"); and comparisons between households adopting technologies and practices and non-adopters in control communities, controlling for key factors ("adopter analysis"). Qualitative data reports findings from focus group discussions and key informant interviews with individuals purposefully selected because of their participation in particular interventions, or because they are case examples of positive or negative deviance.

Figure 6: Summary of Impact Evaluation Results for Intermediate Outcomes and Impact

(Orange = no impact, yellow = mixed/unclear results, light green = medium impact, dark green = high impact.). The boxes represent impacts for households directly participating in the interventions/adopting practices whilst the circles indicate number of households reached within the treatment villages (scale of impact).



8.1 Intermediate outcomes from the impact evaluation

Here we assess the intermediary outcomes between the adoption of PROSPER promoted interventions and the higher level impacts as shown in

Figure 6. These intermediary outcomes largely reflect improvements in capacities that are hypothesised to contribute to greater household and community resilience. For example, crop intensification and diversification reflect greater adaptive capacity, enabling households to grow crops or varieties better suited to climate shocks, while increased assets, including livestock and durable goods, increase household absorptive capacity by providing an emergency source of income if needed.

8.1.1 Crop intensification, diversification and crop sales

The impact evaluation used two approaches to assess three outcomes related to agricultural productivity: crop intensification, diversification and sales value. The first analysis approach (participant analysis) looked at the impacts for households who participated in agriculture-related PROSPER interventions compared with similar non-participant households in control communities, and the second (adopter approach) assessed the impact for households who adopted PROSPER-related agricultural practices (e.g. irrigation, conservation agriculture practices and improved varieties), compared with similar non-adopter households in control communities.

8.1.1.1 Crop Intensification (Yield)

For intensified agricultural production, we found no evidence of impact with either impact evaluation method. The indicators used were the household level yields for the four crops most commonly cultivated in the quantitative sample: maize, groundnut, pigeon pea and sorghum.

In contrast, the qualitative data from the focus group discussions and interviews indicated that a large number of households noted improved food availability due to increased crop yields. Households credited the Cash for Inputs programme and the adoption of the agricultural methods taught by PROSPER and African Parks, such as irrigation farming, reduced ridge spacing, using fewer seeds per hole, and Mbeya fertiliser (strong evidence). Those practicing irrigation farming reported increased food availability all year round, with the additional benefit of income in the lean season from selling surplus produce (limited evidence).

"After being taught on irrigation farming, we now harvest twice a year, and when we combine with early maturing crops we can even harvest three times. We now have enough food and our children are happier." FGD, Female, SU, PROSPER, Phalombe

"Every beneficiary of the Cash for Inputs programme has witnessed an increase in their crop yields which has improved food security." FGD, Male, SU, PROSPER, Chikwawa

Lack of evidence of impact in the quantitative data is difficult to understand, given strong qualitative evidence that many participants saw improved yields as a result of a combination of programme activities. One potential reason for not detecting impacts in the quantitative data could have been the high outcome variability for yield outcomes, which results in less precise estimates of population means: impact among all programme participants must be large to be reliably detected. It could also be that while a number of participants did see considerable positive impact on yield, this was not representative of the majority of participants. Many qualitative respondents who reported large yield increases also described participating in a number of complementary activities, such as Cash for Inputs plus conservation agriculture or training on improved planting; others described access to inputs as being crucial for the success of improved agricultural practices.

"To ensure that we are benefitting more from planting hybrid seeds, we also had to change the way we do our farming. We adopted modern farming methods which were being taught to us by extension workers and lead farmers through demonstration farms. These included mulching which conserved soil moisture, low tillage which conserved soil fertility, reduced ridge spacing to increase the number of ridges. We applied all these methods in our individual farms and it increased our crop productivity which enhanced the high yield of the hybrid seed." FGD, Male, SU&SO, PROSPER, Balaka

As described in Section 6, while 19% of households received Cash for Inputs, only 7% reported receiving both Cash for Inputs and extension; not all households may have received the complementary programmes that respondents credit with creating the best outcomes. Focus group participants may also have been more engaged with the programme than the average household, reflecting a selection process that involved implementing partners linking participants meeting basic criteria with BRACC Hub for interviews. With respect to the lack of link between practices and yield, it may be that the analysis did not capture the right practices: Sasakawa planting, which involves reduced ridge spacing and fewer seeds per station than traditional practices, was commonly mentioned in qualitative interviews, but it was not accessed in the quantitative data because it was not on the list of conservation agriculture practices provided by implementing partners. Finally, it is important to note that some of the mechanisms for improving yields, particularly conservation agriculture aimed at soil fertility and water retention, require adoption of practices over a longer time period than what was measured for this evaluation (two years).

Some of the participants interviewed as positive or negative deviance case studies reported not growing any new crops and/or not starting any new livelihood during the programme (medium evidence). These households tended to have a more negative experience of the programme (i.e. were interviewed as negative deviance) – unless they did not change anything because existing crops/activities were already working well for them. Participants were more likely to have grown new crops and used new/different inputs than to have started a new, non-farming activity (medium evidence). Many participants reported not growing anything new, apart from using new seed varieties (strong evidence). Often when new types of crops were grown, participants stopped growing other crops in their place – due to previous poor yields and/or poor markets. A small number of participants reported trying hybrid seed varieties and/or new planting methods under the programme, but finding they preferred the local varieties, reverted to their prior behaviours (limited evidence). Some participants reported not trying any new inputs during the lifetime of the programme (limited evidence).

Overall, we interpret the evidence as suggesting that yield improvements within the life of the programme may have been large for some but were less substantial on average, particularly in comparison the high amount of variation households see in yields due to weather and other shocks.

8.1.1.2 Crop Diversification

The impact evaluation found positive impacts on diversification as measured by the number of crop types grown. Impacts were highest for female headed households. We did not detect impacts for whether households reported their current crops being a new variety or type. The results were similar across both the

participant and adopter-level analyses. The qualitative data confirmed that number of respondents report diversifying as a result of the programme, and report a range of benefits from crop diversification. Respondents described the Cash for Inputs programme as both enabling them to purchase inputs for crops they normally might not, and introducing them to new crops (medium evidence). Some respondents described the adoption of new crops and of drought tolerant and short maturity varieties as enabling better outcomes than were achieved previously in the face of dry spells as well as reducing the negative effects of crop failure due to environmental shocks and stressors by providing income to buy food (strong evidence). On the other hand, diversified agricultural production has also improved dietary diversity (medium evidence).

> *"Some people in the community that live in very remote areas did not know sesame farming because many programmes in the past were not able to reach them, but since GOAL Malawi reached those areas they now practise sesame farming. A friend of mine that stays in a remote area was just informing me that he sold 5 bags of sesame for the first time in his life, he was part of the cash for input programme."* FGD, Male, SU, PROSPER, Chikwawa

8.1.1.3 Crop Sales

For crop sales value, we found positive impacts for households who participated in PROSPER interventions. Female headed households and households from the 'stepping up' wealth category had the highest impacts. No impacts however were found for youth headed households. From the qualitative data, participants primarily attributed higher incomes to the sale of surplus crops following improved yields due to the Cash for Inputs programme (which gave participants access to high-yielding seeds) and the adoption of BRACC agricultural methods such as irrigation farming and reduced ridge spacing, as well as diversified agriculture (i.e. growing a broader range of crops) (strong evidence). Income from selling vegetables through PROSPER and African Parks has also enabled households to purchase nutritious foods that they cannot grow themselves (strong evidence).

Taken together, the evidence suggests that, for many households, crop diversification may have been a more important mechanism for increasing agricultural production and sales over the life of the programme than yield increases. Diversifying into new crops, including irrigated crops, would not necessarily raise yields, but could represent more investment in cash crops, or production during more of the year, contributing to higher income for the household.

Box 7: Intensified and Diversified Agriculture - Gender and Inclusion

Among programme participants, female-headed households adopted many agricultural practices, including climate smart agricultural practices, at a slightly lower rate than male-headed households. However, these differences were largely explained by differences in wealth, as female-headed households are more likely to be in the 'hanging in' category than male-headed households. Wealth ranking was much more robustly linked to differences in agricultural practices that any demographic factors examined: 'stepping up' and 'stepping out' households were significantly more likely to report trying new crops or varieties, growing improved varieties, using irrigation; they also adopted more climate smart agriculture practices and grew more crops on average. All of these practices generally require cash resources. Tellingly, one practice not significantly associated with wealth group was early planting, which does not require additional resources other than time.

Once geographic area and wealth group were controlled for, only one demographic group had significantly different adoption of agricultural practices: elderly-headed households were less likely to report growing improved varieties, but more likely to adopt early planting.

In general differences in agricultural practices across geographic areas dwarfed differences between demographic groups, although patterns varied by practice. For example, while respondents in Mangochi were much more likely to report trying new crops, they were also significantly less likely to engage in early planting or irrigation, perhaps because they face lower risks of drought or dry spells. These differences suggest that local context may play an important role in how participants respond to programmes; by

promoting a wide range of agricultural practices, PROSPER may have allowed communities and households to adopt those they viewed as most accessible or beneficial given their location or individual challenges.

Crop yield results across groups generally reflected the patterns seen in adoption of agricultural practices. Yields were highest in Phalombe and Mangochi, and among the higher wealth groups. The 'stepping out' group in particular reported relatively high yields. Respondents in the qualitative focus groups describe access to inputs as a key mechanism driving differences in outcomes, as the wealthiest farmers are able to buy complementary inputs such as fertilizer, or pesticides to mitigate pest shocks.

> *"We have benefitted differently because our crops were affected by Fall Army worms so farmers who were able to buy pesticides benefited more since the program does not provide money for pesticides. Likewise, farmers who had access to fertiliser or manure benefitted more because they increased their crop productivity."* FGD, Male, SU&SO, PROSPER, Balaka

Improved knowledge is resulting in changed practices by men and women participants from all three targeted wealth categories, as well as among Lead Farmers, across a range of areas from planting to livestock feeding and disease management. There is significant uptake of these practices relate to cultivation methods such as Sasakawa, organic alternatives for pest management, livestock health and management ("khola" livestock shelters). Planting trees and eating a diverse diet were other examples of changed practices. These changes practices were enabled by frequent training with higher shares of participants reporting receiving information on key extension topics and reported improvements in extension quality, enabled by improved training of promoters and extension officers.

The gender yield gap, long observed in Malawi, persisted among PROSPER participants, with female-headed households reporting lower yields. However, the differences in yields were not statistically significant once District, wealth group, and other demographic characteristics were controlled for. This suggests that approaches that successfully build agricultural resilience and productivity among low-income households may also be highly effective at addressing the yield gap.

For additional information on gender and agricultural outcomes, see the GESI brief[40].

8.1.2 Livestock assets and related outcomes

The impact evaluation analysis found very positive impacts for households participating in the PROSPER livestock pass-on scheme (who represent approximately 7% of the treatment households). The main indicators assessed included the Tropical Livestock Index, which is an index allowing livestock ownership to be aggregated across different livestock types, based on their typical weights, and the total number of livestock owned. We also assessed the difference in the number of goats owned – since goats were the main livestock type promoted by PROSPER. Participator households in the treatment group were compared with non-participators in the control villages.

The positive impacts occurred across all three outcomes. We also found that the impacts occurred across all sub-groups, with female headed households having higher relative impacts to male headed households. Households from the stepping-up (wealth category 2 out of 3) had the highest impacts compared to the other wealth categories. This was consistent with qualitative data findings; the livestock programme was extremely popular and many participants in the livestock pass-on programme credited the activity with enabling them to get a start in livestock husbandry.

8.1.3 Climate coping strategies

The impact evaluation found that PROSPER participants used significantly fewer negative coping strategies. The effect was largest for the poorest households.

From the qualitative data, many households reported improved coping strategies during periods of food shortages, particularly during the lean season (strong evidence). These are particularly enabled due to access to multiple assets on which to draw in times of stress, for example livestock which can be sold in order to buy food, as well as access to cash/loans through the VSLAs (medium evidence). Those practicing irrigation

farming have seen increased food availability all year round, with the additional benefit of income in the lean season from selling surplus produce (medium evidence). The programme's layering and linking approach has been important in this regard, supporting participants to withstand shocks and stressors by enabling them to undertake more productive activities and access resources (medium evidence).

However, environmental shocks and stressors, particularly drought and fall armyworm, have posed persistent barriers to increased food security despite the adoption of PROSPER interventions (strong evidence). In these cases, even if an overall improvement in household food security and nutrition has been seen, positive changes brought about by the programme have been stunted by shocks and stressors (strong evidence). Access to pesticides – for those who could afford these – helped reduce the impact of fall army worm (limited evidence).

8.1.4 Erosion control and soil quality from Natural Resources Management

The impact evaluation found no evidence of impact of participation in PROSPER activities on reduced erosion or improved soil control. This result was as expected, given the length of implementation at the time of the Midline Evaluation, as watershed and soil management practices often take several years to see results.

From the qualitative data, participants reported improved rainfall patterns and reduced soil erosion as a result of community-level forest management activities (PROSPER and African Parks), which they also attributed to improved crop productivity and yields (medium evidence). In addition, soil fertility has improved as a result of manure making and increased access to fertiliser, again improving yields (medium evidence). A small number of African Parks participants also reported improved yields due to the construction of a fence to keep wild animals out (limited evidence). Several participants noted how the linking of BRACC interventions worked together to help facilitate higher crop yields, such that improved erosion control and replanting of trees contributing to increased yield, which was then augmented by other interventions, such as cash for inputs enabling access to higher yielding hybrid seed, or the livestock pass-on programme facilitating access to manure (strong evidence).

> *"I received training on how to make box ridges and make deep trenches and drains in the mountain that is above my field. By making these drainages I have reduced the intensity of water flow from the mountains to may field and in turn prevented soil erosion and improved water conservation in the field. By preventing soil erosion I have maintained the fertility of my field which has increased my yield from 10 bags per acre to 20 bags for some of us and 30 bags per acre for others, even with insufficient fertilizer. This has resulted in my household managing to eat three meals per day".* FGD, Male, SU, PROSPER, Mangochi

The discrepancy between the quantitative and qualitative findings could be explained in several ways. First, some of the activities respondents describe experiencing positive results from could be intensification of pre-existing efforts to implement watershed management. Qualitative interview respondents could also be reporting smaller scale improvements that have not yet taken place on a large enough scale to show up in the representative quantitative sample; for example, they may observe localized improvements in run off or gully formation during the rains. Lastly, as many of the qualitative respondents participated in bundles of interventions, such as both watershed management and Cash for Inputs, it may be challenging to tease out attribution of impact to individual interventions; respondent attribution may reflect what they have been told they can expect from practices such as water and soil management.

8.2 Impact level changes from the impact evaluation

We found limited evidence of impacts at the higher levels ("final outcomes") of the Theory of Change with the impact evaluation methods. Given the maturity of the programme when the survey was conducted (just over 2 years from baseline), these results are largely to be expected, as most of the causal mechanisms would require several years to be fully realised. Another contributing factor for not detecting impacts with the impact evaluation methods relates to the challenges of measuring the impact level (final) outcomes, which often have high levels of variation and also being influenced by multiple contextual factors. Our impact evaluation design also had limitations given the relatively small number of participating households within the treatment group and that PROSPER operated in both the treatment and planned control villages. This meant that we had to rely on quasi-experimental methods that looked at the impacts for a smaller group of participators and adopters.

8.2.1 Improved nutrition and food security

The impact evaluation used both participator and adopter analysis approaches to assess the impact of PROSPER programmes on nutrition and food security. For participators, we found positive impacts on the household dietary diversity score. No impacts were found on food consumption score for participator households; however, small impacts were found on households who adopted PROSPER practices, such as irrigation and improved input access, particularly for female and youth-headed households. We detected no impacts on household reported food security over the past year, for both the participator and adopter-level analyses.

While the impact evaluation found limited impact on food security and nutrition, the qualitative data told a richer story about how programme activities are contributing to aspects of food security and dietary diversity and nutrition in different ways.

> *"Things have absolutely changed because now there is food security in the entire community."*
> *FGD, Male, SU, PROSPER, Phalombe*

The food security and nutrition improvements described by respondents were brought about by various interventions that directly or indirectly contributed to the capacity to grow or procure nutritious food. The backyard vegetable gardens introduced by PROSPER and African Parks in particular have significantly contributed to improved nutrition by increasing both food availability and dietary diversity, and reducing dependency on markets for food (strong evidence). The livestock pass-on programme has also contributed to improved nutrition by providing participating households with dairy products like goat milk, which several families mentioned feeding to their children (limited evidence). Furthermore, many households reported being able to produce more food even during dry spells due to early maturing and drought-resistant seeds gained through Cash for Inputs, such as maize, groundnuts, and pigeon peas (medium evidence).

Many households also reported an increased ability to afford nutritious foods, due to higher incomes from improved crop yields, produce sales from home gardens, and access to finance through VSLAs (strong evidence). On the flipside, lack of money is a continued barrier for some household being able to afford these nutritious foods, as explained by a man in Balaka: *"I also have a backyard garden which provides me with vegetables. I try my best to eat six food groups but due to reduced income levels, I am unable to achieve this everyday but I am trying" (SSI3, Male, SU, PROSPER, Balaka).*

In addition to growing and procuring food, training sessions on dietary diversity, as well as on how to prepare nutritious foods and practice better sanitation, have contributed to improved nutrition outcomes (strong evidence). Participants reported enhanced understanding of what constitutes a balanced diet and what foods to feed to children. As a result of increased yields as well as the nutrition training programmes, many participants in turn noted significant reductions in malnutrition, particularly among young children, including some reduction in infant mortality rates (medium evidence).

> *"In the past before Goal Malawi came to the area, we had a lot of cases of child malnutrition. Even adults were not spared as they exhibited one nutritional disorder or another … We did not know that a child needs the 6 food groups to be health and also needs to eat three or more times a day. Goal Malawi trained through care groups we were involved with on the 6 food groups and cases of malnutrition are a thing of the past." FGD, Female, SU, PROSPER, Chikwawa*

Improved nutrition and food security have had important spillover effects for household livelihoods, including reduced spending on healthcare and improved attendance and performance at school (medium evidence). Improved health – from the programme's sanitation and hygiene interventions and eating a more varied, nutritious diet – has also enhanced households' productivity in agriculture and other livelihood activities, with participants reporting having increased energy to farm (medium evidence).

> *"Improved health and nutrition status helps me to save money which I would have used to cater for hospital bills and use it for other household needs. I am also able to participate effectively in farming and business because I am healthy which maximises my productivity and brings me more benefits in term of high yield and more profits. My children are also able to attend school*

every day because they are not sick thereby by giving them enough chance to excel at education." SSI3, Male, SU, PROSPER, Balaka

Food security and nutrition is another area where there was some amount of dissonance between qualitative and quantitative findings. While qualitative data shows that programme activities have benefitted household food security and nutrition in a number of ways, the impact evaluation found evidence only of impact only on dietary diversity and food consumption scores, and the latter only for adopters, with no impact on the number of months households report food insecurity. Part of this may reflect how food security is defined and measured. Questions about the number of months households experience food security may not be sensitive enough to pick up the positive changes experienced; many households in the PROSPER targeted areas have extremely low food security at baseline, so even with improvements, they may struggle with some degree of food security in many months of the year. There also may be intrahousehold effects not picked up by household level indicators like the household dietary diversity score. Lastly, again, the qualitative respondents tended to report participating in a high number of interventions, and more high intensity interventions, relative to the averages from the quantitative survey, so the experiences reported in the qualitative data may not be representative of the average household in a PROSPER targeted community.

8.2.2 Increased income and expenditure

Quantitative data on income looked primarily at crop sales. As described in Section 8.1, positive impact was found on crop sales for participants in PROSPER activities. The quantitative data also looked at household expenditure levels, as a downstream indicator related to income that is often easier and more accurately measured than income. For households participating in at least three PROSPER interventions, we found positive impacts for household non-food expenditure and total expenditure. We found positive impacts for female-headed and poorer ('hanging in') households for non-food expenditure. Lack of impact in the area of food expenditures is not necessarily surprising, as increased agricultural production could reduce the need for households to buy food. Results were similar when comparing households who adopted key practices to similar non-adopter households in the control group.

Qualitative data showed participants commonly reporting increased incomes (medium evidence). For some participants, the increases in income from adopting BRACC agricultural interventions were significant. In Mangochi District, a participant reported that the irrigation farming practice taught by PROSPER had enabled him to grow crops three times a year, thereby tripling his income. Many other households reported income increases that were enough to allow them to build modern homes or obtain assets like motorbikes and cell phones.

"[Increased income] has made a huge difference in my life, last year alone I managed to make over Mk40,000 from my garden at the scheme and I made over Mkw400,000 from sales of groundnuts. My house project has been supported by the money that I get from sales of honey and farm produce because I was able to buy iron sheets and cement for plastering of the house and floor. My family now has good shelter, and am able to provide for all our household needs like nutritious foods and needs for school children which include exercise books and uniform. We are also able to support our parents financially." SSI3, Male, High Income, African Parks, Nkhotakota

During the period of programme implementation, many beneficiary households also relied on the cash payments from participating in watershed activities such as tree planting and the construction of contour ridges and swales (medium evidence).

Many participants noted that crop and livestock sales worked together with the VSLA groups to produce a synergistic effect that further amplified incomes: households reported being able to invest their income into the VSLAs, and later use their share-outs to reinvest in farming or purchase more livestock (strong evidence). This layering of interventions was noticed by several participants who saw the BRACC programme as being more comprehensive than previous livelihood interventions that had taken place in their communities (medium evidence).

For households participating in watershed management, such as tree planting and the construction of contour ridges and swales, and other activities with an associated cash incentive, delays and even cases of non-receipt were reported in Balaka, Chikwawa and Phalombe (medium/limited evidence). Given this cash was used to meet basic household needs like buying food or paying for school fees, delays could be quite detrimental to

households.

8.2.3 More stable income, consumption and nutrition in the face of climate shocks (climate resilience)

The impact evaluation included an analysis of the extent to which participating in PROSPER interventions reduces the impact of climate shocks for households. First, households were selected who reported being exposed to a drought shock within the past year (from both treatment and control villages). We focussed on drought shocks because they are the most commonly occurring, and have severe impacts. Other shocks, like floods, impacted too few households for the use of impact evaluation methods. Within the subset of households who experienced drought, we did three impact comparisons. The first two analyses compared treatment village households who participated in at least two or at least three interventions. The third analysis compared outcomes between treatment households who adopted key PROSPER promoted practices. The analysis found no impact on food security (including the food consumption score), coping strategies, crop yield or expenditure. Positive impacts were found on the probability of making a deposit in an account over the past year, building savings, ability to build assets, and household dietary diversity score.

Qualitative data suggest that programme activities have contributed to increased capacity of households to withstand climate shocks in a number of ways. Increased income is credited with contributing to variety of resilience-related investments. Participants invested in a wide range of assets with their increased incomes (medium evidence). These included livestock (goats, chickens, pigs, cattle and other livestock), productive agricultural assets (land, farm equipment and other tools to increase productivity; or paying labourers to assist during the farming season); home improvements (e.g. replacing mud walls with brick, or replacing grass thatch roof with iron sheets); and household items (including kitchen utensils, solar panels, mattresses, cell phones) and transport (bicycles and motorbikes, which were seen as an investment for future agricultural productivity by facilitating easy access to fields). Some also used additional income to diversify into small businesses, moving away from sole reliance on agriculture (medium evidence).

As well as investment in assets and productive livelihoods, the qualitative data showed there was also investment in meeting basic household needs, including for healthcare, clothing and school fees (in addition to food) (strong evidence). Many households reported using their increased incomes or access to cash to prioritise payment of their children's school fees and costs. Several participants shared that their greater ability to pay school costs has in turn increased their children's attendance at school (medium evidence).

> *"Before I got goats from Goal Malawi, I was failing to pay school fees for my children as a result one child failed to write exams. But after receiving goats through the livestock pass on intervention from Goal Malawi, I was able to sell some goats after they reproduced to pay for my child's MSCE examination fees last year."* FGD, Female, SU, PROSPER, Chikwawa

Although on balance the qualitative data reports positive findings on income and potential to invest in resilience, this was not the case for everyone. Crop surpluses did allow many participants to increase their incomes, a large percentage of households noted that the increase in yields and thus income was only enough to allow them to meet basic needs (strong evidence). A woman from Chikwawa explained that most of the households in her community "*were not able to buy assets because whatever income we were earning from cash crops or receiving from PROSPER we would end up just buying food to feed our families because of hunger"* (FGD, Female, SU, PROSPER, Chikwawa).

Even if additional income was available to ensure food security and meeting of basic needs, for some their incomes have not increased enough to accumulate tangible assets (medium evidence). A man in his seventies from Chikwawa said that the crop yields he harvested were enough for home consumption only (FGD, Male, SU, PROSPER, Chikwawa). Many participants reported that there were many livelihood activities they would have liked to have started but they did not have the resources to, for example growing new crops with a perceived better market, buying and selling fish and alternative crops, such as tomatoes (strong evidence). Barriers to starting these new activities included lack of funds, lack of skills and experience and lack of business opportunities (medium evidence).

> *"There is a change in income as compared to times before Goal Malawi as many of us did not know how to manage our finances properly. We used to spend money on trivial stuff instead of investing it in a business or VSLA. Goal Malawi trained us on ways of generating income through VSLA, using our crop proceeds or goat sales as capital. Through VSLA most of us are now running a business whose income*

is used to support our families' needs like buying soap, clothes, food, and pay for our children school needs." FGD, Female, SU, PROSPER, Chikwawa

8.2.4 Additional qualitative outcomes: improved wellbeing, improved poverty status and more free time

The qualitative data was able to surface additional outcomes that perhaps were not foreseen in the Theory of Change but nonetheless led to qualitative improvements in the lives of participants.

Improved wellbeing among programme participants was closely associated with an increased ability to reliably access basic needs (food, shelter, paying school fees) and acquire assets due to improved yields, higher incomes, access to livestock, and access to finance (strong evidence). There is limited evidence that PROSPER has also helped realise higher order needs, including a greater sense of dignity and self-esteem (from having the resources to practice personal hygiene and buy clothing). Some participants also noted feeling more independent as they are now able to provide for their families without external support.

> *"The project has helped me to start irrigation farming specifically tomato farming, something that I was not doing before the project as I was sorely dependent on rain fed agriculture … My independence has also increased as I can fend for my own needs without asking for money from anyone. Having a large family of 8 children, this increase in livelihood practices has helped me a lot in managing to feed and educate them … My happiness and self-image and aspirations have also improved, initially I used to think people with k15,000 in cash were rich but now I find that money at once when I sell my tomatoes."* FGD, Male, SU, PROSPER, Mangochi

There is some anecdotal indication (limited evidence) of improved mental health from programme participants, particularly women, who report decreased anxiety due to improved food security within their households. There is some limited evidence of improved relationships in the community and at home, particularly due to increased income and food security at the household level. In a FGD in Chikwawa, a woman explained that *"We used to quarrel a lot with our husbands at home whenever we needed money to buy food or cooking oil because the man did not have money then we would end up quarrelling, but now because of cash for inputs, we have enough food and income and there is peace in our homes, everyone is happy"* (FGD, Female, SU, PROSPER, Chikwawa) (see Box 8 for more detail).

While it is unclear from the FGDs and positive and negative deviance interviews how many participants were able to 'graduate' out of extreme poverty, there is strong qualitative evidence of improvements in poverty status among some participant households. Respondents widely reported increased incomes, improved access to finance (through the VSLAs), and a greater ability to reliably meet the basic needs of their households, and in many cases, acquire assets. As a man from Balaka explained, "*Buying assets shows that we are improving in our poverty levels. Some households have moved from sleeping in a house that had a leaking roof to a house with iron sheets"* (FGD, Male, Stepping Up, PROSPER, Balaka).

This was particularly true for those participants who were involved in, and benefited from, multiple interventions under PROSPER or African Parks (strong evidence), and those who started the programme with more funds and resources to draw on when adopting programme activities (medium evidence). These participants tended to be in a positive cycle of events – for example, improved crop production led to better food security and increased income from sales, which, if invested in farming activities (perhaps with the added benefit of interest gained from VSLA group savings), led to further improvements in yield and sales, which again led to improved food availability and income.

A small number of participants explicitly reported that they had graduated from one target group to another, for example 'hanging in' to 'stepping up', or 'stepping up' to 'stepping out'. It was more common to move from 'stepping up' to 'stepping out' (limited evidence).

> *"The irrigation farming practice has helped most of us to increase our income because we grow crops three times in a year, making three times as much money as we used to … I can confidently say that I have graduated from the 'stepping up' group to the 'stepping out' target group because my income is three times as much." FGD, Female, SU, PROSPER, Mangochi*

Barriers to significant changes in poverty status for most participants included yields (and hence food availability and income) being adversely affected by shocks and stressors, such as dry spells and fall armyworm, and the short timeframe of the programme (medium evidence). Consequently, many participants

reported no change in their target group (or poverty status) (medium evidence). This was a negative outcome if they remained in the "hanging in" group, but not necessarily negative if they started in the 'stepping up' or stepping out group. Reasons for no change include crops not performing as well as expected/failing due to shocks and stressors, not benefitting from the programme, not having the resources to graduate to the next group, lack of reliable markets for crops and not fully participating, due to illness or lack of interest.

Participants often mentioned that the programme had increased their free time and their productive capacity to engage in livelihood activities, particularly due to improved health, nutrition and food security and thus reduced time spent doing piecework and caring for relatives (strong evidence). Participants also reported that the reforestation activities have resulted in increased firewood availability in their area.

Box 8: Gender and Outcomes

Analysis of the resilience index indicators from the Annual Survey data show that at midline, female-headed households in PROSPER targeted communities tended to have had lower resilience index scores, averaging a score of 2.4 on the Hub-7 version of the resilience index, compared with an average of 2.8 for male-headed households. The distribution of scores differed as well: resilience scores for female-headed households were more skewed, with the bulk of households scoring 1 or 2, and relatively very few households with high resilience scores. Female-headed households were less likely to be categorized as resilient for most indicators in the resilience indexes, particularly access to good climate information (31% for female headed households versus 41% for male-headed households), making a deposit into an account in the past year (26% versus 33%) and having a non-weather dependent source of income (26% versus 27%). The latter was driven by both female-headed households being less likely to engage in both irrigated agriculture and non-agricultural household businesses, potentially reflecting less access to capital. However, there were also a couple of resilience indicators where female-headed households performed on par or slightly better than male-headed households, including making investments into future resilience (88% versus 87%); higher resilience investment among female-headed households was driven by higher investment in education (see table).

Female-headed households also had worse outcomes for indicators such as crop yields and expenditures per capita. Analysis of the Annual Survey data showed that female headed households had an average maize yield of 838 kg/ha, compared with 1060 kg/ha for male-headed households. Female headed households had an average annual per capita expenditure of about MWK 82,500, while for male-headed households it was around MWK 89,700.

Many of the differences in resilience, agricultural and consumption outcomes between male and female-headed households were explained by female-headed households' lower wealth rankings. However, even controlling for wealth ranking, District and other demographic factors, being a female headed household was still associated with worse outcomes, suggesting additional challenges that may be faced by this group.

Differences in the barriers experienced by women in both female and male-headed households may result in interventions affecting them in different ways. For example, whilst both women and men observed improved outcomes, VSLAs were credited for improving women's incomes, giving them some independence, particularly for single and widowed women (limited evidence). The training-based approaches embraced in other interventions also provide important skills and confidence that can empower women to make their own decisions and engage in productive livelihoods and income generation which seems to elevate their position in the household. There is also some anecdotal indication (limited evidence) of improved mental health from programme participants, particularly women, who report decreased anxiety due to improved food security within their households as a result of greater incomes.

However, whilst improved incomes can contribute to decreased food security and improved wellbeing, they can also contribute to changing intra-household dynamics. Strong gender roles and patterns of intra-household decision making were evident among participants in all BRACC locations. Women typically have responsibility for reproductive decisions and men have responsibility for productive and livelihood decisions. There is more variability on decisions relating to education, health and control of assets and small livestock. In these realms some women spoke of joint decisions, although it seems that consultation does not change the ultimate decision-making authority, with one woman explaining "When it comes to livelihood activities

and selling of assets, my husband makes the decisions but he consults me and if we agree we make the decision together. However, if I disagree, he continues with the decision that he earlier made."

There is already evidence that it is methodologically challenging to ask any one adult in a household whether a man or a woman makes decisions, as the answers rarely correlate[41]. Nonetheless, the impact evaluation assessed who makes decisions in households for a number of variables, and a binary outcome (yes/no) was also used for the resilience index, which classified a household has having improved decision-making power if a women had control over at least three key decision in a household, we found no evidence of impact of participating in PROSPER on decision-making.

There was widespread acknowledgement of domestic conflict and failed marriages following spousal disagreements over unpaid loans, or arguments over how money from share-outs should be spent. In many instances, intra-household conflict arose when a spouse took out a loan without the consent of the other partner, and then the VSLA group came to confiscate household assets following failure to repay the loan. There were also indications that some husbands disapproved of wives' newfound economic independence following their participation in the VLSAs.

Table (below): Comparison of Outcomes for Male and Female-headed Households, Annual Survey Data, and Statistical Significance of Difference based on T-test Results

	Female-headed households	Male-headed households	Difference	*Significant at 5% level
Average Resilience Score, Hub-7	2.4	2.8	-0.4	*
Percent Achieving Resilience, Hub-7>=4	22%	28%	-6%	*
Household spent income to improve resilience	88%	87%	1%	
Household with women with control of income decisions in at least 3 out of 4 areas*	66%	61%	5%	*
Household received assistance during lean season	35%	34%	1%	
Household has at least one type of insurance*	1%	3%	-2%	*
Household has adopted 6 or more prompted Climate Smart Agriculture practices*	1%	3%	-2%	*
Household has cash food expenditures equal to less than 50% of total cash expenditures	32%	37%	-5%	*
Household had adequate food provisioning past 12 months	20%	23%	-3%	
Household reports being able to build savings*	14%	19%	-5%	*
Household had access to timely and good quality climate information*	31%	41%	-10%	*
Household made use of climate information for risk reduction or mitigation*	45%	52%	-7%	*
Household reports increased sales for at least one crop type*	20%	26%	-6%	*
Household has weather-independent income source	26%	37%	-11%	*
Household has made a deposit in a savings account in last year	26%	33%	-7%	*
Average Maize Yield	838	1060	-222	*
Average Household Expenditure Per Capita	82500	89700	-7200	

8.3 Negative outcomes and no change

A sub-set of BRACC participants reported “no change” in their behaviour/activities during the programme’s lifetime, the context they are living and working within, and/or their standard of living and resilience levels (medium evidence). This is to be balanced with the consistent and often significant positive changes seen by others. Some participants reported they were already undertaking activities before the programme started – whether that was beekeeping, harvesting mushrooms from the forest, or applying new farming technologies and environmental management activities, and so have not changed their behaviour in the past two years (medium evidence). Others did not change their behaviour because they were not a direct participant of that activity (limited evidence).

A small number of African Parks participants in Nkhotakota reported not seeing any benefits yet from beekeeping and mushroom picking activities – due to only recently starting, giving the mushrooms picked to Lilongwe University, lack of markets/low prices, and the factory not having been built as planned (limited evidence). Other participants of the broader BRACC programme reported not benefiting because they had not

been part of certain activities (e.g. only benefitted from the community-wide initiatives like environmental management and hygiene/sanitation interventions, and not the activities targeted at individuals and households), or because they were outside of the target area (e.g. for improved water access) (medium evidence). A small number of participants did not benefit from PROSPER as the support came late or did not meet their needs, due to, for example, fertiliser not being provided (limited evidence).

Participants did not report on many negative changes to behaviour or context. Negative outcomes seen were generally related to shocks and stressors experienced, rather than the programme itself. Participants experienced a range of negative outcomes, both direct and indirect, as a result of shocks and stressors (medium evidence). For example, theft of inputs, outputs and livestock, and reduced/lower-than-expected yields due to dry spells and fall army worm, negatively affected households' food security and income levels. This had negative spillover effects, for example on participants' ability to afford school fees and on levels of debt, opportunity costs of what households would have spent increased income on, and an increased reliance on piecework. PROSPER seeds coming late was another reason given for negative outcomes. For many, although the outcomes seen were negative relative to what they were expecting, these still represent an improvement in situation/positive outcome overall (medium evidence).

9. BRACC and Resilience

This section discusses the relevance of the BRACC objectives and outcomes for strengthening the resilience of programme participants, relating this to the theory of change. It then discusses outcomes achieved in terms of building resilience capacities, sustainability and transformational change.

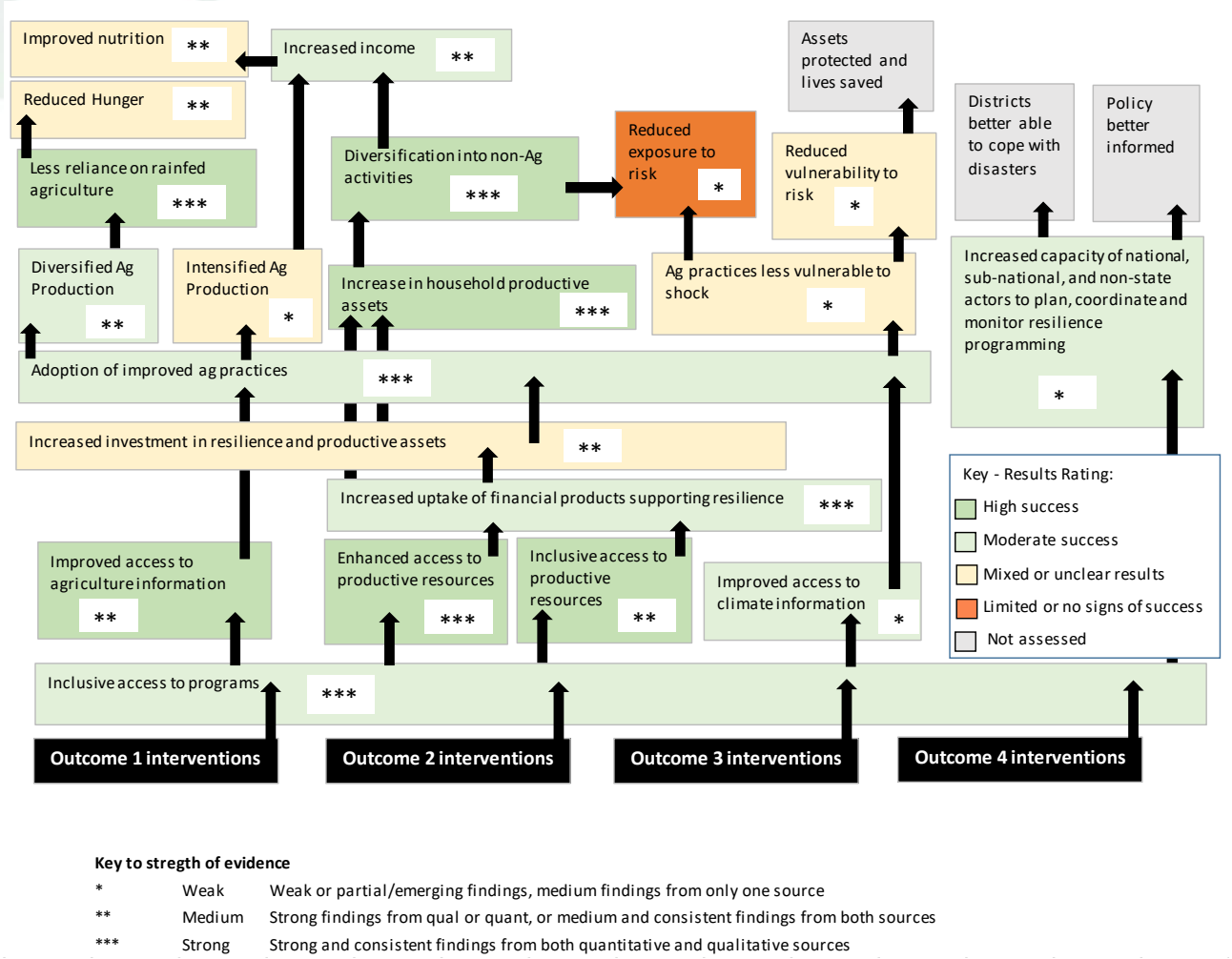
9.1 BRACC outcomes and the theory of change

EQ2. To what extent are the theory of change and intervention objectives of the programme responding to the current needs of the programme participants and stakeholders (household, community and national levels)?

EQ 2a. Did results delivered align with the results / changes anticipated in the Theory of Change in relation to building and strengthening resilience and climate change adaptation? How/in what ways? If not, in what ways/ why not? In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups).

The results of the 2021 evaluation indicate that, after slightly more than two years of implementation, the BRACC programme achieved positive results for most of its intermediate outcome objectives, and shows signs of success for some of its higher-level impact objectives. These results are in line with, or better, than what would be expected given the timeframe, budget cuts, and early curtailment of the programme.

Figure 7. Mapping of 2021 Assessment Results against BRACC Theory of Change Mechanisms



Key to stregth of evidence

*	Weak	Weak or partial/emerging findings, medium findings from only one source
**	Medium	Strong findings from qual or quant, or medium and consistent findings from both sources
***	Strong	Strong and consistent findings from both quantitative and qualitative sources

Figure 7 shows a mapping of the results from the 2021 Evaluation against the mechanisms linking BRACC interventions to final outcomes, according to the BRACC theory of change. The theory of change is adapted slightly to reflect outcomes that were measurable with the data sources used in the 2021 Evaluation. The 2021 Evaluation did not attempt to assess some outcomes, shown in grey, because they are longer-term outcomes that fell outside the scope of what could be measured with the evaluation methodologies. A table summarising the key quantitative and qualitative evidence used to assign the results ratings, and reasons for strength of evidence ratings, can be found in Appendix I.

Analysis of participation in programme activities (Section 6) shows that nearly three-quarters of households in targeted communities reported participating in at least one PROSPER activity, although not all respondents attributed the activity to PROSPER; activities like VSLA groups and farmer groups are relatively widespread in Malawi. This participation rate was in line with PROSPER's objective of reaching about 80% of households in each community with some sort of programming. Many households reported participating in multiple activities, consistent with PROSPER's approach of bundling complementary interventions. Some households in the Impact Evaluation control communities also reported participating in activities specific to PROSPER or credited PROSPER with supporting activities they participated in. This suggests that in addition to the programme reach within targeted communities, there may have been some spillover in neighbouring communities. While problematic for the Impact Evaluation methodology, this indicates that programme reach may have been greater than implied based on the number of households in targeted communities.

Although programme reach appeared generally good, the reach of some of the more intensive activities, particularly those focused on asset distribution, such as Cash for Inputs and livestock pass-on, was much

lower, as was the reach of bundles combining asset distribution with complementary activities. In addition, the poorest wealth group, 'hanging in', had very low participation rates across activities targeted broadly, as well as many activities targeted specifically to their group. They were also not targeted for some of the high intensity asset support programmes including Cash for Inputs and livestock-pass on. Some vulnerable groups, including female-headed households, also had lower participation rates. This was partly due to the fact that vulnerable groups such as female-headed households are more likely to fall in the 'hanging in' group, this meant that they also tended to be less targeted for many activities. However, they may also face additional barriers; female-headed households are very likely to be single-headed households, with fewer adults, so they may have less time to allocate to programme activities. At the individual level, qualitative data suggest that some activities had higher female participation; although female-headed households were less likely to participate in VSLA groups, it was reported that women are the most common participants in VSLA. Overall, programme interventions appear to have been inclusive in many ways, but some groups were underrepresented, particularly the poorest.

Analysis of the impact of the programme and activity participation on access to, and adoption of, new technologies and practices (Section 7) found strong evidence of positive impact across a number of outcome areas. In many cases, but not all, the impact was strongest for female-headed households and poorer households.

In the area of agricultural inputs and practices, positive impact was found with respect to access to good quality agricultural inputs; qualitative evidence demonstrates that Cash for Inputs was effective at supporting this, respondents describe using the cash received to buy seed for resilient crops or varieties, or pesticides, that they would not otherwise be able to purchase. Qualitative data suggest that access to inputs was often complemented with adoption of new farming techniques, particularly modern seed spacing practices; the impact evaluation found a small positive impact on the number of climate smart agriculture practices adopted among extension participants. A small positive impact was found for participants with respect to crop diversification, an effect that was largest for female-headed households. Participants were twice as likely to participate in an irrigation scheme, and positive impact was seen on adoption of irrigation technologies for all groups.

One intermediate agricultural outcome where results were less clear was crop intensification, as measured by crop yield. Although there was extensive qualitative evidence of respondents crediting access to inputs and improved farming techniques adopted under PROSPER with improving crop yields, the impact evaluation found no significant impact on yield as a result of the programme. This could be because the qualitative data reflect the experiences of the minority of participants who received the high intensity intervention bundles, and the average difference for all participants is too small to be reliably detected with the sample size used, especially given the high amount of variation in farmer-reported yield data. It was also unclear whether adoption of new technologies and practices is leading to less vulnerability to shocks, as many respondents reported that programme impact was dampened by shocks such as dry spells or pests.

Positive impact was also found in the area of adoption and use of access to finance products, including reporting building savings, and making a deposit in an account in the past year. There was also a small positive impact on uptake of insurance, but overall adoption of insurance remained low, and qualitative evidence suggest that many respondents felt they had a poor experience with the crop insurance programme promoted through PROSPER, and would not buy crop insurance in the future.

In the area of building assets, there was strong evidence for increases in some types of assets, but not all. The impact evaluation found that participation in livestock pass-on had a significant effect on livestock holdings; qualitative data show that households also built livestock assets through purchases using income from increased crop production. Positive impact was also found for durable assets; respondents report investing in assets such as improved roofing and transportation assets like bicycles and motorcycles, but there was no impact found for agricultural assets. One area with unclear results was general investment in resilience; there was no significant impact on likelihood of investing in any resilience category, although impact on investment in irrigation was found. In general, resilience investment is difficult to measure, as it is difficult to tease out expenses that are a response to shocks, such as repairing a damaged roof, from expenditures that build resilience, such as investing in more weather-proof roofing.

In the area of diversification into non-agricultural livelihoods, there was strong evidence of good outcomes. Participation in VSLA activities was found to have positive impact on the likelihood of having a non-agricultural business. Numerous respondents also report that income from crop sales or livestock sales enabled them to start new businesses or invest in existing ones.

Analysis of the impact of the programme and activity participation on high-level outcomes, including increased income, improved nutrition and food security, and reduced exposure and vulnerability to risk (Section 8) found less evidence of impact. In many cases, impact was detectable only for certain activity participant groups, but not for PROSPER treatment communities or participants as a whole. For this level of indicators, programme theory posits that impact would often be expected to take several years to materialize. For example, water and soil management practices may take several years to build soil fertility and affect yields; activities such as planting trees may take a decade to fully come into effect. Seeing some results in these areas at this point in the programme is very encouraging.

Evidence of impact was strongest for income, where the impact evaluation found positive impact on crop sales, as well as on household non-agricultural expenditure and total expenditure; qualitative data showed that many households reported achieving increased incomes through improved crop productivity, income from non-agricultural enterprises, and livestock sales, as well as direct income from Food for Assets.

For food security and nutrition, results were less clear. Qualitative data show that many households described programme activities contributing to households having better harvests, and an easier time buying food if needed. However, the impact evaluation showed that food insecurity remained very high among participants, and there was no impact on food consumption score when comparing participants versus non-participants, although households adopting some practices did see improved hunger outcomes. In terms of nutrition, there is qualitative evidence of greater awareness of the importance of dietary diversity, and activities contributing to making foods like vegetables more available; the impact evaluation found that participants in nutrition activities had improved dietary diversity, but they represent a small share of program participants overall.

There was very little evidence that activities contributed to less exposure to risk. The impact evaluation found no effect of program participation on likelihood of experiencing a shock, and qualitative evidence shows many participants experienced shocks such as drought, dry spells, and pests. Evidence on reduced vulnerability to shocks was mixed. Among households who experienced drought, the impact evaluation found no impact from programme participation for most indicators, including subjective shock impact, income, food production, or use of coping strategies. There were positive differences for indicators related to savings and building assets. Qualitative evidence shows households view watershed activities as contributing to improved soil fertility and water retention, including in the face of shocks, but programme participants also describe severe impact from shocks such as drought and pests.

Overall, the findings from the 2021 Evaluation compare favourably to the results of a similar mapping exercise completed using data from the PROSPER 2020 Annual Survey (see figure 7). The differences may in part reflect use of different indicators and data sources; in particular, the data in 2021 Evaluation are both more rigorous and richer, incorporating both qualitative and quantitative data sources. However, especially with respect to the higher level outcomes, it is likely that the increased evidence of positive results reflects growing impact over the course of implementation.

EQ 2b. To what extent do the objectives of the programme respond to the needs of programme participants (household to national levels) given the current context?

The programme objectives respond to the varied needs of programme participants in the context of the impacts of climate shocks and stressors on poor people with weather-dependent livelihoods, aligning with the GoM National Resilience Strategy. Building on the success of other resilience-programmes, it does this by providing a suite of interventions supporting climate-resilient livelihoods through training and incentives for behaviour change, including through risk reduction and market linkage development. The particular activities are informed by the deep understanding of contexts held by the implementing partners as a result of their previous experience (for example WFP's work under BRACC is rooted in their Food-For-Assets work, with PROSPER seen to fill in gaps). Recognising different starting points, it targets different wealth categories and was grounded in a participatory approach to wealth categorising and planning, which is widely regarded across

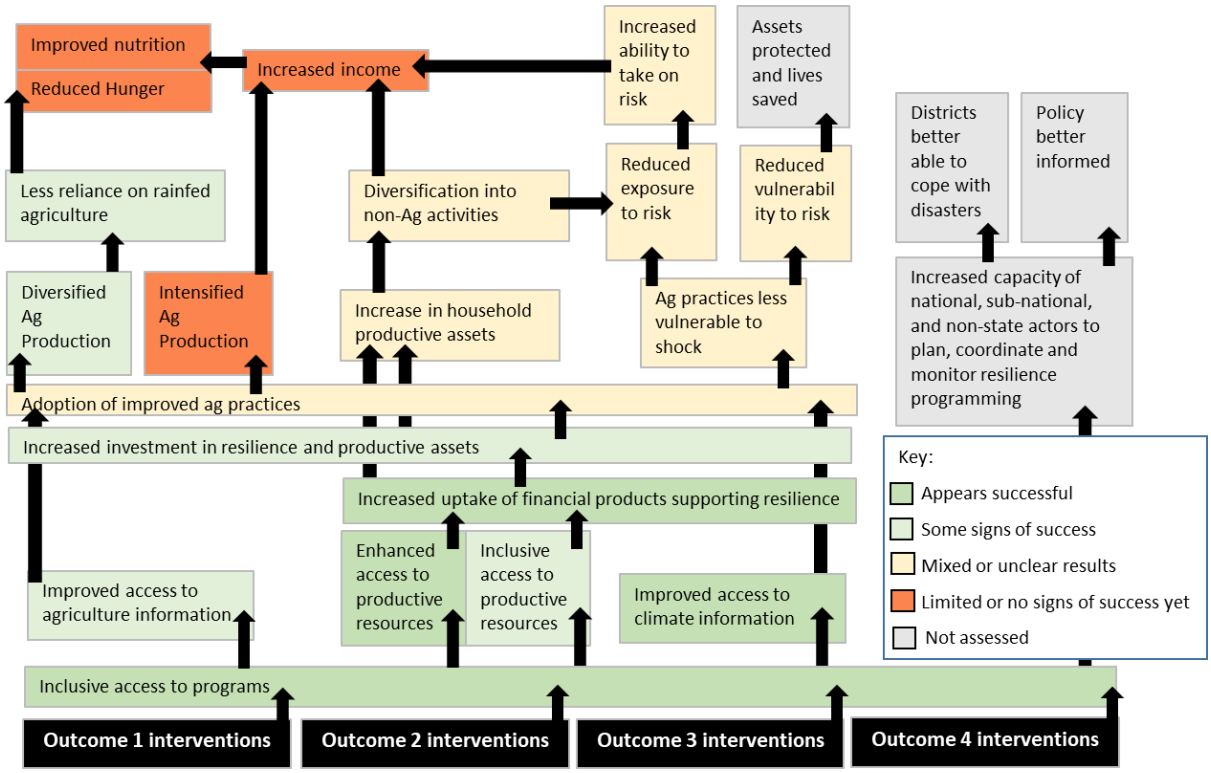
institutional levels as beneficial to programme participants. The approach of working hand-in-hand with government partners is also widely lauded as contributing to sustainability and benefits that extend to non-participants.

From the point of view of PROSPER participants, the wide range of activities is appreciated, as is the training-based approach, as it provides knowledge to participants that will outlast the programme. Layering of activities is acknowledged by many interviewees to be a good approach as the outcomes of multiple, supporting and complementary activities contribute to longer term resilience-building. Participants also understood the programme logic for targeting different activities to households at different wealth levels. However, the lowest wealth group, 'hanging in', appears to have been the least reached by programme activities, particularly in highly coveted activities that provided access to assets, such as Cash for Inputs and livestock pass-on. This group continued to have significantly worse outcomes across multiple indicators related to resilience and welfare. Female-headed households and other vulnerable groups are more likely to fall in this lowest wealth group, they also had lower participation rates, and often worse resilience outcomes. However, female-headed households and poorer households often saw larger positive impact as a result of participation in activities compared with other groups.

Some initial delays in implementation caused by Covid 19 and uneven budget availability caused challenges to the planned layering and linking of interventions. Respondents also observed that many community members, even within eligible wealth ranking groups, were excluded from activities due to limited resources. The early close of the programme was also identified as a key factor limiting impact. Many respondents remarked on the lost opportunity to cement resilience gains by continuing support over time, and noted that because the early closure was unforeseen, they did not have a plan for replacing the role filled by programmes such as Cash for Inputs.

There were also a number of needs the respondents identified that were not addressed by the programme. One critical area was access to output markets. Other outstanding needs identified by participants included 'refreshers' and review trainings; greenhouse cultivation; livestock-based field schools; and biogas activities to address the problem of charcoal.

Figure 8. Mapping of 2020 Annual Survey Results against PROSPER Theory of Change Mechanisms



Source: 2020 PROSPER Annual Survey Learning Brief: Lessons for Implementation and Evaluation

9.2 Resilience and climate change adaptation outcomes

BRACC mainly supported its participants to build their **adaptive capacity** to climate-related shocks and stressors (strong evidence). There are also initial signs of participants' **absorptive capacity** having been built, although this varied across the different participant households – both in terms of their confidence that this was the case but also in the way that they had experienced (the same) shocks and stressors during the programme's lifetime (medium evidence). There is limited evidence that **anticipatory capacity** has been built by BRACC. This is unsurprising, given that most programme activities did not focus on preparedness and planning.

9.2.1 Adaptive capacity

PROSPER and African Parks have supported participants to both start and further develop existing alternative, non-agricultural, less-climate-sensitive forms of income, to diversify crops grown and to access other sources of finance and build assets (strong evidence). The theory is that, if crop yields are affected by dry spells/flooding/pests, participants will still have sufficient funds to buy food and other household necessities. This includes, in both shock and non-shock situations, accessing saved money through VSLAs and profits from non-agricultural businesses, selling vegetables from backyard gardens and other crops, having increased levels of livestock for sale and selling firewood from the forest. As noted by a male PROSPER participant in Phalombe district, *"…Increased income [from winter cropping, VSLA and increased assets] enables me to have resources to use to address climate change challenges…"* (SSI3, Male, SO, PROSPER, Phalombe).

The success of diversifying livelihoods varied across participants. Some reported trying new income-generating activities, but stopping these, due to them not being profitable (because of costs being too high and/or there not being enough of a market). Others were able to engage in productive work rather than piecework, and develop alternative income streams (medium evidence).

The layering and linking approach of engaging participants in multiple, mutually supportive activities has helped build resilience capacities, by providing participating households with more viable livelihood options and coping strategies (medium evidence). Activities to improve natural resource management for example in watersheds complement and support behaviour change at the individual and household levels. Participant households have a sound understanding of the benefits of engaging with a combination of activities, to diversify their risk profiles (strong evidence). A female African Parks participant in Nkhotakota district commented, *"…if one intervention fails, you can always lean on the other one whereas with single interventions your capacity is built on only one source of food or income so if it fails it becomes a huge problem"* (SSI3, Female, High Income, African Parks, Nkhotakota).

Good health, from sanitation and hygiene interventions, and improved food security have been important enablers for participants being able to focus more on adapting to climate change (medium evidence). Improved health and food security enabled some participants to engage in weather-independent livelihood strategies alongside farming, and enabled others to adjust their farming practices, for example, by planting with the first rains. A male participant from Balaka district explained, *"Improved food security helps me to… do all things necessary to prevent things like dry spells affecting my crops like planting with the first rains and mulching… "* (SSI3, Male, SU, PROSPER, Balaka).

Participants report being less susceptible to diseases such as cholera during floods, due to improved sanitation and hygiene behaviours, for example increased latrine use (medium evidence). This has the additional benefit (spillover effect) of improved productive capacity in both shock and non-shock situations. Another male participant from Balaka commented, *"… Improved health and nutrition helps me to prevent outbreaks like cholera in rainy season since the household has good hygiene and sanitation structures that protects us from contamination. Because we are healthy, we are able to participate effectively in farming and are capable of replanting or do any farming activities again in case crops are affected by dry spells or any other climate change challenges"* (SSI3, Male, SU, PROSPER, Balaka).

Adaptive capacity has been enhanced through the introduction of irrigation farming, so that participants are less reliant on rain-fed agriculture, and hence have a source of food/income all year round (medium evidence).

Adoption of early maturing, high-yielding, and more drought resistant hybrid seed varieties, new farming techniques, such as sasakawa, the use of compost manure and pesticides means that participating households are able to harvest, even in times of drought (strong evidence) and infestations by fall armyworm (medium evidence). This, in turn, means they are less likely to need to rely on piecework as a coping strategy for these shocks and stressors (medium evidence). A female participant from Chikwawa district reported that, "*…Most improved varieties that we grow from PROSPER are early maturing as a result we are able to harvest something in times of drought. If you combine early maturing varieties with sasakawa and compost manure, you are assured of a good harvest even if the area is hit by dry spells. The compost manure help to conserve some moisture for crop growth…"* (SSI3, Female, SU, PROSPER, Chikwawa).

For some participants, resilience to climate shocks and stressors is still at low levels. Generally, this is due to high levels of poverty and lack of productive resources, with participants still struggling to meet basic needs and not in a position to diversify their livelihoods (medium evidence). Not practising irrigation was one reason given for lack of capacity to adapt to dry spells (limited evidence). Lack of irrigation also reduces the likelihood of sustained activities/outcomes beyond the programme, if affected by shocks and stressors such as flooding and dry spells in the future, as there is no *"backup plan for farmers in case of drought or floods"* (SSI3, Male, SU, PROSPER, Chikwawa) (limited evidence).

9.2.2 Anticipatory capacity

Activities to improve anticipatory capacity appear to have had less emphasis in BRACC, with relatively little evidence at midline for progress in provision, access to and use of climate information. Over such a short time frame, the effectiveness of planning and other DRM activities cannot yet be assessed. African Parks and PROSPER participants who have been involved in activities to control the flow of water, such as tree planting, making swales and planting vetiver grass, are positive about the resilience of their crops and houses in the face of flooding, strong wind, and drought (strong evidence). A male African Parks participant from Nkhotakota explained, "*we have learnt how to make swales to control flow of water and conserve water and also mulching to help keep soil moisture where rainfall is not sufficient, in addition, we also plant Vetiver glass which helps control flow rate of water. All these can help us to still realise high crop production even with climate change"* (SSI3, Male, High Income, African Parks, Nkhotakota).

9.2.3 Absorptive capacity

Participants who have seen multiple positive, interrelated outcomes from their engagement with PROSPER/African Parks are positive about their improved ability to withstand shocks – in theory (strong evidence). This is due to reportedly improved food availability, a surplus of crops for sale/consumption due to diversified crops and improved yields, the ability to use sales of livestock and income from diversified livelihoods as a "buffer", continued access to crops for consumption/sale through irrigation, and/or the knowledge developed through BRACC's capacity building activities. In other words, participating households have an improved range of coping strategies to draw on in shock situations (medium evidence). A male participant from Mangochi explained the range of income and food options he and his family now have, and concluded, "*…in PROSPER there is resilience"* (SSI3, Male, SO, PROSPER, Mangochi). Another male participant from Phalombe cited the PROSPER programme's training and other capacity building as an enabling factor, *"so that we become very knowledgeable and experienced on how to deal with effects of climate change and other shocks that occurs mostly in our community. This stood as an eye opener for me to be able to stand on my own"* (SSI3, Male, SO, PROSPER, Phalombe).

Participants' ability to absorb shocks in practice was not always as strong as they had anticipated in theory. Many who responded positively about their ability to withstand shocks subsequently reported (in the same interview) that they had been negatively affected by shocks and stressors during the programme's lifetime (strong evidence). For example, a 31-year old female participant from Nkhotakota reported that a dry spell (which coincided with her being pregnant):

> *"affected [my] household because my crops dried out and I was only able to harvest three bags of maize out of 15 bags of maize that I normally harvest. In terms of groundnuts I only harvested*

2 bags but normally I could harvest 37 bags… Low crop production affected food availability in my home and also my income... My [tomato] business is what helped me to recover because it provided me with income to purchase food and support my household" SSI3, Female, Medium Income, African Parks, Nkhotakota

Often activities under the programme provided a cushion – participants were able to reduce the immediate impact of shocks and stressors on their livelihoods and basic needs, for example, by being able to harvest alternative types of crop rather than nothing at all, or by taking out a loan from the VSLA groups to meet household needs (medium evidence). However, for some, their short to medium term resilience has been negatively affected, for example through the sale of livestock and other assets (medium evidence).

Those who benefitted less under the programme and reported fewer positive outcomes (e.g. improved food security), were more adversely affected by (often multiple) shocks and stressors, due to their lack of capacity to absorb the impacts of these (medium evidence). These participants tended to be food insecure, lacking in funds and resources and living "hand to mouth", and, as a result, engaged in negative coping strategies to survive. A Phalombe-based male participant described his experiences of shocks during the programme;

"I was affected by hunger and it made me fall into debt to be able to buy food for my family, I collected maize on debt to pay back during harvesting season in the following year, and it affects the harvest for the following year because we also pay back with interest… Floods and army worms affected yields, despite applying fertiliser I did not harvest enough… The falling of my house it made my family and I move to my relatives kitchen which was not enough for us, I had to source funds to reconstruct my house… I used money from piece work to rebuild and buy food for my family. What would have enabled me to cope is having an alternative livelihood source like business, but I did not have enough money to start a business" SSI3, Male, HI, PROSPER, Phalombe

The shocks and stressors affecting participating communities during the programme's lifetime include dry spells/drought, flooding, fall armyworm, livestock disease, poor markets (high prices for inputs, low prices for outputs), illness and Covid 19 (strong evidence). Where shocks have occurred, participants vary in the amount of time that it has taken or is still taking to recover (strong evidence). Some report it taking several months or until the next growing season to recover, others say that they are still recovering. Being able to turn to alternative livelihoods (e.g. tomato/fish trading businesses), use irrigation farming or access funds via VSLAs (e.g. to buy pesticides, to invest in alternative businesses) has supported participants' capacity to withstand and absorb these shocks (medium evidence). Others have resorted to piecework in the short term, which often provides an unreliable source of income (medium evidence). For those with limited funds/resources, external support has also been important, from government, NGOs and family/friends (limited evidence). A female participant from Chikwawa recounted how she was able to deal with fall armyworm, drought and flooding, and even managed to harvest a "bumper yield":

"I borrowed money from village bank and bought pesticides and applied in my maize field and I have harvested. The challenge had solutions… I rely much on winter cropping [to deal with flooding and drought effects] which we use residual moisture. So, yes, the rainfall distribution was not enough but I have harvested twice which is enough to take me through difficult months… Introduction and establishment of village banks have helped me a lot to recover within short period of time. floods washed away crops in the fields. when this happened, I borrowed money from village bank to buy inputs and I grew again and within a short period of time, the crops were mature because I bought improved variety which is early maturing and high yielding" SSI3, Female, SO, PROSPER, Chikwawa

A small number of participants referred to their resilience and ability to withstand shocks as not having changed since the start of the programme. Some participants were negative about their levels of food security at the end of the programme, and hence their ability to adapt to and absorb shocks and stressors. This was particularly the case if their harvest was strongly and adversely affected by dry spells/pest/flooding during the programme i.e. if they lost most/all of their harvest and struggled to feed their families, and have not yet recovered. Overall, an increase in food security was widely reported in the FGDs and SSI3s, though this was somewhat limited by environmental shocks and stressors.

9.3 Sustainability

EQ 6. To what extent will the programme have transformational impact and bring about systems change?

EQ 6a. What evidence is there that the interventions and the mechanisms that support them have the potential to deliver 'amplified results' and/or 'transformational impact'? How, why, for whom, in what contexts? [sustainability]

Interventions within the BRACC programme were designed with sustainability in mind, focusing on training and building skills more than asset transfers, and working in partnership with government staff, which can encourage sustainability.

The design of BRACC, and its focus on training, can lend itself well to sustainability, because **building skills** means there is less risk that the end of a project will impede their continuation. *"[Increased income] will be long lasting because the people were just given a start-up pack as well as skills and knowledge on business so that they can support themselves, they were not given handouts but the capacity that enable them to realise benefits and this will be with them for a long time because it is sustainable" (SSI1, District-level stakeholder, African Parks, Ntchisi)*.

The design was also contingent upon a **strong partnership with government staff** throughout the period of implementation. That means they too had their capacity further built in particular skills and practices and will be able to provide ongoing support, as well as potentially introduce them to different populations and in new areas.

There is stated commitment to continue and even expand practices across a wide range of interventions.

Good evidence for the utility of these new practices, as outlined in earlier sections, is also a powerful motivator. As outlined above, a range of positive impacts were reported by participants to their standard of living, through changes to livelihoods and improved income and asset creation, as well as evidence of the health and wellbeing benefits of improved sanitation and hygiene and eating nutritious diets. Several expressed the wish to not go backwards towards the situation of poverty and suffering that they experienced prior to the programme.

Participants expressed commitment to **continue with a number of livelihood practices**, including diversified farming, modern agricultural practices, use of mbeya manure, livestock pass-on, VSLAs, sanitation and nutrition (PROSPER), and irrigation agriculture (African Parks).

> *"As long as we continue with modern agricultural practices, we will continue harvesting more thereby have excess to sell. The alternative sources of income that we have now are long lasting. Even when the program ends, we will continue with the backyard farming which provides us with a source of income. We will also continue using manure as an alternative to fertiliser there we will be saving some money enabling us to have extra cash. In future when goats start multiplying, owners of goats will be able to have income from selling some of the goats." (FGD, Female, PROSPER Balaka)*

Beyond continuation, there is also evidence for **current and planned expansion**. There is already evidence that VSLAs are not only continuing but expanding membership. This reflects the demonstrated benefits and frequently mentioned widespread participation in the VSLA group beyond those participants that had been enrolled in the programme by PROSPER. Some respondents shared that new VSLAs have been started by non-participants after seeing the success of the PROSPER model. In the case of African Parks, some participants spoke of their intention to expand the scale and scope of their interventions.

> *"We have already planned to expand the capacity of the scheme in order to allow more households who are showing interest to join irrigation farming. Besides that, we would also like to better ourselves as agri-preneurs and we are planning to find ourselves a trainer who will teach us agribusiness so that we can fully benefit from the yields."* KII, Community-level stakeholder, African Parks, Nkhotakota

As well as household livelihood benefits, there was a strong sense from the FGDs and SSI3 (positive and negative deviance) interviews that the **environmental management activities, particularly around forest conservation**, would continue after the end of the programme. Reasons cited included that the community had seen the demonstrated benefits of planting trees, including regulated climate, reduced erosion, and an increased ability to withstand environmental shocks such as floods and strong winds. These benefits have been seen by non-participants outside the programme, as well as those directly involved. There was also a sense of ownership following from the trainings on forest management.

On the other hand, **insurance programmes are less likely to be sustainable**. The challenges with clear communication and coordination, particularly around payout procedures, mean that most participants expressed reluctance to participate in future crop insurance programmes, at least until the issues of transparency are met.

> *"We would not buy insurance in the future unless there are changes in terms of operation procedures as said if it would come with improvement such as timely response, effective communication and good updates definitely we will be able to do so because we all know the importance and benefits of having insurance product in these modern times where we have a lot of uncertainties due to climate change and other shocks like drought/dry spells and floods"* FGD, Female, SU, PROSPER, Phalombe.

The transfer of skills for managing different interventions and the establishment of new compliance systems bode well for continuation of the practices.

A promising sign for sustainability is the fact that, beyond training participants themselves, **strong support systems have been put in place**. As well as district government staff, including extension officers, there is expertise vested in trained Community Animal Health Workers, community-based trainers to support VSLAs, and local chiefs. In many cases community level systems have been put in place to disincentivise former behaviours and encourage new behaviours. Fines have been introduced in some communities for households not following hygiene and sanitation practices, and for cutting down trees.

> *"We are going to continue taking care of our forest because we have seen the benefits and the benefits are long lasting. And also there are penalties that are there if one cuts a tree or sets fire. For example, if you cut one tree you are to pay MK25,000 so in fear of this we are going to have our forest conserved and continue enjoying the benefits. We are also planting fruit trees and other trees so that later we will not have to always depend on our village forest so that pressure on forest trees will be minimised."* FGD, Male, HI&SU, PROSPER, Balaka

The early ending of support for interventions runs the risk that behaviour and system change has not been sufficiently embedded.

Since it takes some time for new training to bear fruit and new practices to become embedded, **the early reduction in programme activities may risk sustainability** relative to the additional years of planned implementation. Lack of funding and/or resources, due to shocks and stressors affecting yields and the early closure of the programme, was one of the main barriers cited to sustained behaviours and outcomes beyond the programme's lifetime (high contribution; strong evidence). A few households noted already raised concern about how adverse weather conditions had impeded their farming operations even whilst part of the programme; and forthcoming covariate shocks could undermine the otherwise positive experiences to date. Concern was expressed over the livestock pass-on, with one participant worried about the reduction in supervision due to there not being programme staff around.

> *"I think supervision still has to go on to see how much the goats would multiply and proceed with the pass-on program… I think the outcomes will not last because people have already given up on the goal of the program, some have sold already"* SSI3, Female, SO, PROSPER, Balaka

Although a lot of the interventions are behaviour based, some do require investment, for example purchasing high yielding seeds for sasakawa each year. Some participants said they would likely revert to planting cheaper, local variety seeds once the cash for inputs scheme has ended, as they do not have money, for example, to buy fertiliser (medium evidence).

The greatest **risk is to the HI target wealth category**, as they did receive some assets, for example under

Food For Assets or the cash incentive for participation in watershed management. One community key informant expressed concern that not receiving cash would have knock-on effects by impeding their ability to participate in VSLAs.

Sustainability is also dependent on the **supporting systems, which take even longer to change**. Unusual early benefits were reported from many of the environmental practices, even though the benefits of these typically take longer to accrue. However ongoing maintenance will be required if those benefits are to continue to accrue – for example in managing erosion and swales and planting trees. The benefits of these practices were well cited by participants, but it remains to be seen whether they continue to engage in the maintenance efforts. Regardless of good community intentions in maintaining forests there are powerful forces driving deforestation and addressing the known internal challenges, for example around corruption, will be necessary to create that system change. MCHF has commenced raising awareness of these issues in partnership with the Association of Environmental Journalists and aims to continue working with the Department of Forestry. System strengthening takes time and there is often a tradeoff in projects such as PROSPER and BRACC with generating quick outputs vs addressing the underlying system change that is required for true sustainability.

9.4 Transformational change

According to the 3As resilience framework on which BRACC is based, it is not sufficient to develop anticipatory, absorptive and adaptive capacity to build resilience, particularly at systems level. Instead there is also need for transformation – or improvements in the underlying drivers of vulnerability to shocks and stressors. This can occur when the 'rules of the game' are altered, for example when power dynamics, policies or regulations and/or the conditions of inequality are improved for people exposed to risk. Transformation is typically much more difficult to achieve as it requires overcoming social and cultural norms that have long been established, and are unlikely to change overnight. As a result of the budget cuts in BRACC, we would not normally expect to see significant transformation at this stage. However, that does not preclude the identification of interim and intermediate changes.

BRACC was designed in alignment with the National Resilience Strategy. The NRS itself could be seen as transformative as it was borne out of recognition of the need to break the cycle of recurrent food security by taking an integrated approach to natural resource management, disaster risk reduction, market development and social protection. Also innovative in the Malawian context is targeting the three different wealth categories, recognising different starting points and trajectories for resilience-building.

BRACC has focused on building capacities to make people more resilient, tied very closely to development needs (and significant deficits and poverty) and outcomes. At this early stage, under three years into implementation of a five year programme, early signals are that the layered interventions targeted to the different wealth categories are relevant to needs. Participants largely report multiple positive, interrelated outcomes from their engagement with PROSPER and African Parks and are optimistic about the likelihood of activities and new behaviours continuing even though the programme has ended, and hence there are positive signs for the sustainability of the outcomes that these support (medium evidence). Knowledge gained through the programme is one of the main reasons for this confidence, along with having seen the benefits first-hand (strong evidence). The positive benefits accruing from environment-related interventions are particularly early, since these typically take longer to return benefits. There is also evidence of a range of spillover effects.

However, whilst largely positive outcomes are reported, there remain questions about the extent to which these have been transformative. Positive outcomes on poverty and development do not automatically translate into resilience and adaptation to climate change. Although climate shocks were experienced in some of the programme locations over the programme lifespan, they were not widespread or of the magnitude that is already common in Malawi, and is projected to become more common and more severe in the context of a changing climate.

Programme interventions have been designed to build climate-resilient livelihoods. However, there is a strong culture of maize production in Malawi – even in the Southern region where the climate is already borderline suitable for its production. Maize production as the basis of food security also features strongly in the social contract. Despite efforts to diversify agricultural production, Cash for Inputs still showed a strong preference for

maize. Across the whole range of interventions, climate information and disaster risk reduction did not feature especially strongly in evaluation findings. To a certain extent this is to be expected as they give rise to avoided losses rather than tangible immediate benefits - but the extent to which BRACC has built resilience and supported adaptation to climate change will best be seen in the future.

Some participants reported they are now better able to withstand shocks, in particular due to the programme's environment management activities (strong evidence). However there were more divergent opinions on whether these changes would be sufficient to withstand future climate shocks and stresses. A female FGD participant from Phalombe noted *"a great improvement in terms of weather… because of this exercise of reforestation through planting of trees… there has been control and reduction of floods and also low crop yield due to dry spells because there is availability of moisture unlike how it was in the* past" (FGD, Female, HI, PROSPER, Phalombe). In contrast, a female participant from Mangochi believes that *"… the furrows and box ridges only help to conserve water that comes with the rain, so if there is a dry spell I don't think these would help because they can't save water for a long time. They would not help during floods either because they are not so deep… the increase in yield is so minimal, it cannot help me withstand a climate shock…"* (SSI3, Female, HI, PROSPER, Mangochi).

As well as individual and community-level benefits, transformation typically requires systemic change and change at scale. The evaluation shows less positive evidence here relative to individual practices. Systemic change typically refers to enhanced governance structures, new policies/regulations, new planning processes, new financial structures and new infrastructure. PROSPER and African Parks partnered effectively with district level staff in implementing the interventions, and there are some interventions, such as the Disaster Risk Management Information System supported by UNDP under PROSPER that contribute to institutional capacity. However, these are more supporting of the existing reality rather than transformative as per the above description.

Of course systemic changes typically take longer to become apparent, but even early signals are weak. Linkages with national government were weaker than hoped as a result of various factors, including the presidential election and its re-run. That said, the new president and his commitment to mindset change may create a more enabling environment for transformation going forward. The strong leadership on environment and climate issues by the current Minister of Forestry and Natural Resources has similarly contributed to the widespread awareness of the problems caused by deforestation, and MCHF is supporting greater accountability of government (and uncovering of corruption) through more nuanced media reporting. Nonetheless, the challenges for GIZ of working with government ultimately led to the early curtailment of their project (Component 3). There is often a tension in programmes as rapid evidence of impact is more likely to be forthcoming when working directly at community level, whilst the systems changes take much longer. One implementing partner noted, for example, the assumption that extension service capacity is already in existence and can be strengthened, when often it is lacking or highly dysfunctional and thus has to be built from scratch, but doing so does not yield the quick returns like livelihood interventions.

Linked to systemic change is the element of scale. Examples of increased activity that might facilitate scaling includes new finance programmes, investor conferences, new distribution networks and delivery platforms established. The evidence of spillover effects is incremental compared to what we would expect to see for scaling. The stalling of the NRS since the start of the programme has perhaps impeded scaling. Although the NRS has been adopted for 2018-30 the implementation arrangements are still not finalised and, in practise, most of the efforts to implement it are from donor-funded programmes. The BRACC Hub's Learning Strategy, Policy Advocacy Strategy and Knowledge Management and Communications Strategy were designed to build and communicate evidence to support NRS implementation, but the early end of the programme will stop this happening. Having a strong NRS in terms of both institutional arrangements and implementation may have increased the likelihood of scale changes in BRACC practices, but in the absence of this, they are also very minimal at this stage.

Part 3: Discussion and Learning

This part of the report discusses the findings of the evaluation, conclusions, lessons learned and recommendations. Section 10 focuses on how and why change happens in the BRACC programme, considering important higher-level mechanisms for change. Conclusions are set out in Section 11, followed by lessons learned in Section 12 and Recommendations in Section 13.

10. Discussion: How and why change happens in the BRACC programme to build resilience

This section discusses key enablers and barriers (mechanisms) that have influenced how change happens in the BRACC programme.

10.1 Summary of enablers

Relevance: participant interest relates to activities meeting local needs.

Several mechanisms were perceived by participants as supporting the adoption of BRACC activities at the community level. A key enabler of adoption of the PROSPER and African Parks interventions was **participant interest** in the programme activities (high contribution; strong evidence). Many participants openly welcomed the programme and stated that they had become involved because they saw the BRACC interventions as **beneficial and locally appropriate** to meeting important development needs in their communities/households. Participants frequently shared their expectation that BRACC would help improve their livelihoods and alleviate their poverty, for instance by increasing their incomes due to the cash for inputs and livestock pass-on programmes, while also improving their food security.

In particular, participants noted an interest in gaining knowledge and learning new skills, such as farming methods that could improve their harvests. For example, a man in Chikwawa explained: "*I got involved in these activities because I knew that they would enable me to alleviate my poverty. The pigs would be a source of income and the cash for inputs would enable me to access certified seed that would enable me to get high yields"* (SSI 3, Male, SU, PROSPER, Chikwawa).

There was a strong correlation between participants' level of interest/capability to participate and the outcomes they experienced – those who saw the value in participating and wanted to improve the standard of living of their families tended to engage in a broad range of activities, from which they saw interrelated, mutually supportive benefits (layering and linking).

The targeting categories were perceived to be useful in matching participant capabilities to the 'right' activities.

Participant capability was also perceived as a necessary prerequisite to programme adoption, with participants often noting that they had been selected due to their demonstrated interest or financial capability to participate, while others in the community were too impoverished to take part. Several participants reflected that the targeting approach was good because it ensured that they would have the ability to participate fully and benefit from the interventions. A female head of household from Chikwawa district explained: *"I was selected by our chief who saw that I was poor but hardworking in community development projects. As a result of this, Goal Malawi thought I was capable of carrying out project interventions they were implementing in the area. For example, I was capable of using the cash for input for its intended purpose and would take care of goats without selling them if given."* (SSI 3, Female, SU, PROSPER, Chikwawa). Another participant from Phalombe praised the targeting categories for pairing households with the interventions best suited for them: *"We had 'hanging in' (HI), 'stepping up' (SU) and 'stepping out' (SO) target group categories and each had its unique activities as well as benefit according to the ability and capability of those people targeted therefore people were getting exactly what we deserved to get according to our ability. Those who were able to rear livestock*

were given goats while those who were not able were considered to and for other activities so I saw this being of the contributing factor to the overall success of the programme" (FGD, Male, SU, PROSPER, Phalombe).

Demonstration effects provide important proof of concept for take-up, by both BRACC participants and non-participants.

Programme **proof of concept** and **community level demonstration effects** played a significant role in promoting wider uptake of BRACC interventions (high contribution; strong evidence). Many participants reported becoming involved in PROSPER and African Parks after observing the positive livelihood benefits, such as increased yields and access to finance through the VSLA groups, which early adopters in their community had achieved through the programme. Community leaders involved with BRACC, namely lead farmers, played an especially important role in providing farmers with the opportunity to witness new agricultural methods in practice and be assured of their viability. These demonstration effects were very influential in creating positive spill-overs for non-participant households, who would often take the initiative to replicate the interventions that their neighbours in the programme had adopted. For example, a participant in Balaka bought their own improved vegetable and maize seed, which others were being supported to do through Cash for Inputs, and tried what their peers were being advised to do by the programme. They were able to generate additional income from sales as a result.

Participants found BRACC to be credible, rooted in positive previous experiences working with the implementers, as well as early involvement of local leaders, leading to high levels of trust and good community coordination.

The **credibility** of the BRACC programme also helped support participants' willingness to get involved (moderate contribution; medium evidence). The **early involvement of community leaders** such as village chiefs played an especially central role in building credibility. Village chiefs often were influential in encouraging community members to take part in environmental management and livelihood activities, and their close coordination with project staff including extension workers and heath promoters was further seen by participants as evidence of a well-coordinated programme (strong evidence). As described in a female FGD in Phalombe, *"We also noticed positive and active involvement of our local leaders, our Village Headman welcomed the programme when officials from Concern Worldwide and District Council came here to introduce it, he has been so supportive from the very first day of inception, this gave community members extra energy to participate and also believe that the programme would really improve our livelihoods, so as time passed even those who were not willing to take part got motivated because of the Chief"* (FGD, Female, HI, PROSPER, Phalombe). The **past positive track-record** of implementing organisations, such as GOAL Malawi, in the area also made some participants feel assured that the new activities these organisations were bringing to their community would be beneficial and well-managed.

The programme's partnerships with local leaders as well as government departments also helped build a sense among some participants that the programme was well-coordinated. As explained in a FGD in Phalombe district: "*both implementing partner and government departments especially from the ministry of agriculture were working together, this gave an outstanding success of the programme because we were fully convinced of what we were doing to be real and beneficial, each time they visited us it was a combination of extension workers either from the district office of agriculture or from the EPA together with Concern Worldwide so it also helped to strengthen coordination at community level"* (FGD, Male, SU, PROSPER, Phalombe).

To a more minor extent, **past participation in a similar programme** also made community members more likely to participate in BRACC activities (moderate/low contribution; medium evidence). In many cases, participants mentioned that the interventions being implemented by PROSPER and African Parks were quite similar to previous NGO interventions in their communities. Oftentimes, participants perceived the BRACC programme as simply being a continuation (and often an intensification) of these activities, and thus households decided to continue participating as they had already been involved in a similar intervention previously. As a female participant from Balaka shared, *"I have been involved in access to finance through village banks and forest management activities only. Before PROSPER came I was already participating in village banks, so when they came in 2019 I just continued."* (SSI 3, Female, HI, PROSPER, Balaka).

Participant buy-in is enhanced by high levels of motivation to carry out project interventions, underpinned by a strong sense of ownership over the activities rooted in BRACC's participatory and inclusive approach. Participants were also encouraged by the commitment demonstrated by programme staff.

Participant buy-in also played an important role in the adoption of programme activities (high contribution; strong evidence). When asked the main reason for the success of the project, participants frequently shared that, after being convinced of the benefits of participating, it was their own willingness and commitment to change their behaviour and put into practice the PROSPER and African Parks activities that helped the programme succeed. As a woman from Mangochi described, *"The main reason for the success of this project is that after realising that the project was good, we had put in much effort to work in the field by adhering to advice given by our extension workers"* (SSI3, Female, SU, PROSPER, Mangochi). A participant from Chikwawa further explained, *"it was highly dependent on how hard working a person was, because despite receiving seed if we had not followed the advice that had been given on how to care for the crop, we would not get good harvests. Those that followed the advice provided by the lead farmers got high harvests and those that did not, got poor harvests."* (FGD, Male, SU, PROSPER, Chikwawa).

Many participants also communicated a **strong sense of ownership over the BRACC activities,** which helped motivate them to participate (moderate contribution; medium evidence). Several participants expressed that while the implementing organisations would come and go, they were the ones who would benefit in the long-term, so it was in their interest to make the programme succeed. According to a man from Mangochi, "*Taking ownership of the project helped us to show up for trainings as we understood that the trainings were for our own good and the skills we would acquire would help us to conserve soil, increase yield and reduce poverty in our households"* (FGD, Male, SU, PROSPER, Mangochi). A number of PROSPER participants noted a sense of ownership that they had not experienced in previous development projects, which they attributed to the participatory way in which the programme was implemented – namely, the active involvement of community members in the training programmes, and the close coordination with local community leaders such as village chiefs. This was expressed during a FGD in Mangochi district in which a participant explained: *"They properly trained us and did not bar us from the activities. They implemented the program (activities) with passion as if they belonged to the village"* (FGD, Female, SU, PROSPER, Mangochi). A man from Chikwawa confirmed this: *"The coordination between programme implementors, extension workers and our chiefs combined with the sense of ownership we had from the beginning of the project made us turn the knowledge into practice"* (FGD, Male, SU, PROSPER, Chikwawa).

The underlying programme design emphasising training and support, and embedding this within communities through the lead farmer approach, was seen to be foundational to stimulating participant behaviour change and adoption of interventions and enhances likely sustainability.

Trainings and support from project advocates and staff were critical to the success of the programme (high contribution; strong evidence). Several participants shared that the way the programme had trained participants and built their capacity (to do it themselves) made BRACC different to other programmes . As described by a woman from Balaka, "*[The programme] has taken an initiative to encourage people to work hard and be healthy … Other programs were teaching us less information but PROSPER has supplemented from where others stopped that's why we are now liberated … we can say it is a success because it has imparted knowledge in us"* (SSI 3, Female, HI, PROSPER, Balaka).

Regular, hands-on training sessions and sensitization meetings with community-based trainers, agricultural extension officers, health workers, PROSPER officials, and lead farmers were absolutely foundational to participant behaviour change and the adoption of project interventions. Ongoing, frequent follow-up by lead farmers and trainers in particular supported continued participation and helped to change deeply engrained behaviours. As a woman from Chikwawa explained, *"There were a lot of sensitization meetings on sanitation and nutrition with PROSPER officials, healthy workers, chiefs and lead farmers. It's through these meetings, where we were advised to practise them in our households for our health and wellbeing. Through these regular meetings we were constantly being reminded on the importance of eating health food and practising hygiene in*

our households. This conditioned us as we now see this as a way of life." (FGD, Female, SU, PROSPER, Chikwawa). The skills and knowledge that participants gained as a result of these trainings enhances the likelihood that outcomes will be sustainable, even though the programme has ended. Most participants expressed a strong commitment to continue BRACC activities (and related new behaviours) beyond the programme, especially those who have experienced multiple, interlinked benefits. They displayed a "can do" attitude and said they would continue as they had seen the benefits of the interventions. Moreover, having lead farmers and trained para-vets permanently embedded in the local community helped many participants feel confident that they had access to the support needed to continue.

Widespread and continued uptake, including compliance with programme procedures, have been supported through community-level institutional structures that encourage cooperation.

Compliance mechanisms and monitoring, by both programme staff and community leaders, were seen by participants as some of the most effective means of encouraging widespread uptake of BRACC interventions (high contribution; strong evidence). The imposition of community bylaws and fines, typically enforced by the village chief, were particularly successful at ensuring compliance to sanitation, health and hygiene rules, as well as supporting sustainable forest management. For instance, participants who did not attend WASH meetings or have private toilets at home risked being removed from the BRACC programme altogether, and were also unable to access medical treatment; as explained by a woman from Chikwawa district, these by-laws *"helped a lot of community members who were resistant to respond to the call of sanitation and hygiene by building toilets thereby reducing open defecation"* (FGD, Female, SU, PROSPER, Chikwawa). Similarly, many participants reported that deforestation in their communities had stopped after the village chief had imposed fines on those who cut down trees. In the livestock pass-on programme as well, the rule that participants must pay to replace goats that die, go missing, or are stolen, also encouraged participants to take good care of their livestock. Regular inspections by project staff also motivated community members to practice desirable behaviours and implement BRACC interventions. As a woman from Phalombe shared, *"Monitoring of the Concern officers made us to be on our toes because we did not want them to come and find out we have not done anything on our farms or constructed toilets"* (FGD, Female, SU, PROSPER, Phalombe). While some participants described the enforcement measures as harsh, they also admitted that they had helped the community.

The **community level committees** established by BRACC further helped ensure the smooth implementation and enforcement of programme interventions. Participants reflected that specialised committees, including health, forest, livestock, and natural resource management committees, worked together with village chiefs and agricultural/livestock/health extension workers to help ensure community compliance with development interventions. For instance, the livestock committee was able to resolve issues with participants being resistant to pass on their livestock. Beyond these formal structures, participants also said that **close cooperation** between community members themselves was important to the sustainability of the programme; one example of this is that VSL group members would enforce repayment for those who defaulted on their loans by collectively confronting the person who had defaulted and confiscating their household assets until they could repay.

Access to start-up resources such as inputs, as well as cash payments, are crucial to enable people to start participating, putting training into practice. This is especially important in a context where people find it challenging to meet their basic needs.

Access to start-up resources assisted many participants in being able to adopt the agricultural methods and environmental management techniques introduced by PROSPER and African Parks (high contribution; strong evidence). Participants mentioned that being able to receive free agricultural inputs, such as improved seeds through the Cash for Inputs programme as well as fertiliser and pesticides through African Parks, was attractive as these were inputs that they otherwise may not have been able to afford. The provision of good quality tree seedlings and other planting/nursery materials also supported the reforestation activities by ensuring a higher success rate from the plantings, while the availability of vaccines for livestock also helped support goat survival rates in the pass-on programme.

While many participants complained that the package of agricultural inputs provided by BRACC was not comprehensive enough (fertiliser in particular was noted to be lacking), several participants mentioned that the

PROSPER programme did a better job of providing start-up resources than many previous interventions: *"The difference is that GOAL Malawi after teaching us in tree seedling production they would bring the necessary materials required for that specific activity such as tubes, water cane, forks and seed. So our job would be to find manure and soil and mixing them. In the previous programmes, we wouldn't see these materials, we would be expected to source them on our own once we have been trained"* (FGD, Female, SU, PROSPER, Chikwawa). Combined with the training sessions, access to material resources helped participants to put this knowledge into practice, as described by in a female FGD in Balaka: "*Not only did they teach us, but they also provided us with the enabling facilities like cash for buying improved seeds and other inputs, they gave us goats and veterinary services through our lead farmers so that if the goats get sick, they can be attended to on time"* (FGD, Female, SU, PROSPER, Balaka).

The **cash payment** which households received for participation in the environmental management activities provided a **financial incentive** for many participants to take part in the programme, and also enabled their participation (moderate contribution, strong evidence). Several participants noted that the provision of a cash incentive was a valuable feature of BRACC compared to livelihood programmes run by other organisations. Although the cash payments were typically quite small (MK14,200), participants often described these as being of significant help to meeting basic household needs, such as for food and school costs. Similarly, participants of the Cash for Inputs programme also appreciated being given cash (with the requirement that it be used to purchase high-yielding seeds) instead of vouchers as in the AIP and FISP programmes, as it allowed them to choose the specific types of seeds they wanted based on their land and local climate.

Participating in a range of linked and/or appropriately sequenced interventions amplifies results.

Lastly, the **linked and layered approach** to BRACC programme activities was seen by participants as a key factor in enabling positive livelihood outcomes (moderate contribution; strong evidence). Participants described that the combination of Cash for Inputs, VSLAs, livestock-pass on, environmental management, and community WASH interventions worked together to help improve livelihoods; for instance, manure from having received goats through the livestock pass-on programme could be used for making Mbeya fertiliser, which had been taught by PROSPER extension officers. Likewise, higher incomes from improved crop sales could be invested into the VSLAs and then share-outs could later be reinvested in farming. The community WASH activities also led to improved health outcomes, which in turn enabled participants to spend more time on livelihood activities and reinvest their income saved from lower medical bills into farming and other small businesses. The value of this layered approach was described by a woman from Chikwawa: *"Combination of livestocks, cash for inputs and village savings and loans was really good. We received goats and we use the droppings to make manure for crops. We harvest crops and we sell in order to save in village banks. We borrow money from village banks and invest in farming to buy inputs like fertilizer, chemicals and hiring labour to pump water with treadle pump resulting in high yielding. The integration was really good"* (FGD, Female, SU, PROSPER, Chikwawa).

10.2 Summary of barriers

Lack of resources and capital was the most cited impediment to participants carrying out livelihood activities, with meeting basic needs taking precedence. This also impacted on the ability to carry out BRACC programme activities. A number of contextual factors come into play, related to the underlying root causes of vulnerability, including climate-related shocks and stressors and systemic challenges such as poor market access, high costs of inputs and low prices for outputs.

Several mechanisms were perceived by participants as restricting the adoption of BRACC activities at the community level. The most frequently cited barrier by BRACC programme participants by far, to carrying out agricultural and non-farming livelihoods activities, including those supported by the programme, was **a lack of funding, resources and/or capital** (high contribution; strong evidence). This was often due to most or all available household income being spent on food and other basic household needs. In contrast, some interventions, including hygiene and sanitation and environment management activities, were implemented in such a way that a large proportion of the community was reached and there were few barriers to community members benefiting from these.

Lack of funding and resources was rooted in participants having low and/or lower than expected income, due to a series of other barriers. Crop yields were adversely affected by **environmental challenges and shocks and stressors** (high contribution; strong evidence). There was a **lack of markets** for selling outputs (high contribution; strong evidence). Participants received **low prices and/or delayed payments** for their produce (moderate contribution; strong evidence) and faced **high and/or rising prices for inputs** and assets (moderate contribution; medium evidence). Another reason for lack of funding and resources was community members defaulting on loans (due to lack of funds), which reduces the share-out and ability to borrow for others (low contribution; medium evidence). Others were reluctant to get a loan to increase their access to money, for fear of not being able to pay this back (low contribution; limited evidence).

Lack of funds has therefore been a strong limiting factor for improving income. Lack of capital for start-up resources was the main reason given for not starting new income-generating activities and diversifying livelihoods, whether on or off farm, and for starting/expanding irrigation activities (strong evidence). It also limited the level of investment in existing farming activities and businesses – especially if existing funds were being used to buy food in times of food shortage, for example, after a shock had occurred, thus limiting earnings further as that investment was not made (strong evidence). Lack of funds limited some participants' ability to participate in VSLA groups, as they could not make the regular contributions required to be a member. This in turn limited their ability to buy assets, for example livestock, and to carry out home improvements (moderate contribution; medium evidence).

Importantly, lack of funds limited some participants' capacity to apply their learning, for example they were not able to afford sufficient food to eat the six food groups each day and provide nutritious meals for their families (moderate contribution; medium evidence). This meant some participants benefitted from this intervention and improved nutrition more than others.

For some participants, lack of funds and capital was seasonal, i.e. a short-term lack of resources until crops had been harvested and sold. For many, it was a systemic, ongoing issue (strong evidence).

Multiple, negative knock-on effects arise from lack of funds extending across many areas of life. Inability to purchase affordable inputs directly impacts production and in turn incomes, as well as ability to deal with pests and other shocks and stressors and the ability to recover after a shock.

There were multiple, negative knock-on effects from having insufficient funds and resources. Some participants could not afford to buy inputs to support the application of BRACC advice. This included fertiliser, pesticides, other farm inputs and, in some cases, farm labour (high contribution; strong evidence). Not being a beneficiary of AIP compounded the issue. Participants reported lack of fertiliser as a barrier to maximising yield from the particular seeds given by the programme – unless they had also received goats, which they could utilise for manure making (medium evidence). A participant from Balaka felt that this *"[diluted] the success of the programme"* (SSI3, Female, SO, PROSPER, Balaka). Lack of money for appropriate and necessary inputs in turn limited crop yields and reduced some participants' ability to withstand shocks (for example, pests, such as fall army worm, due to lack of pesticide) (high contribution; strong evidence). A participant from Nkhotakota explained, *"We have different access to resources so the more resources you have the better the yield. Little resources will also produce low yield…"* (SSI3, Male, Medium Income, African Parks, Nkhotakota). Lack of funds and resources also affected participants' ability to recover post shock (high contribution; strong evidence).

For some, **illness** reduced their household's capacity to undertake income-generating activities, due to a lack of productivity (either because they were sick themselves or busy caring for others) (low contribution; medium evidence). This led to lower-than-expected income. Illness also affected level of funds for food and livelihoods, as available money was instead spent on healthcare. A 76-year-old participant from Chikwawa cited her old age as a barrier to engaging in some of the income-generating activities under the programme (SSI3, Female, SO, PROSPER, Chikwawa).

Lack of access to funds meant that some participants needed to continue to do piecework, which further affected investment in their own farms and other livelihood activities. Other negative coping strategies included taking out high interest loans.

There were also opportunity costs from not having sufficient funds. For example, it meant participants were

more likely to engage in piecework and not work on their farming/non farming income generating activities (low contribution; medium evidence). This tends to be an unreliable source of income, and one participant mentioned it can be a more dangerous one, for example due to not having protective wear when cutting down trees (SSI3, Male, HI, PROSPER, Phalombe). Some participants reported taking out high-interest loans to bridge gaps in income, which, in turn, led to reduced resources later (low contribution; limited evidence).

Factors such as lack of understanding of the programme or risk averseness discouraged people from participating. For some this meant waiting to see positive results from their peers before changing their own behaviour.

Lack of resources or capacity to participate in the programme was often paired with **lack of interest/commitment,** often given by participants as a reason why the programme had not worked the same way for everyone (moderate contribution; medium evidence). Others reported community members being resistant to taking advice, applying the knowledge and skills gained, and changing behaviours and implementing new interventions – whether due to **negative attitudes and perceptions** of the programme (due to lack of understanding), **risk averseness** (such as a fear of defaulting on a VSLA group loan and having their property confiscated) or perceived laziness (medium evidence). These participants were reported to benefit less from the programme – and this could impact on the level of benefit for others, for example, poor yields on demonstration plots. For a small number, resistance to adopt the programme's interventions came from bad previous experience, for example, with VSLAs or taking out crop insurance and not being compensated (limited evidence). For others, adoption would come later, once they had seen their peers benefitting from the programme and were ready to change their behaviour (medium evidence). There were several instances of this later adoption happening during the lifetime of the programme. One participant from Mangochi, who said they did not work hard, cited "categorisation" (i.e. targeting) as a barrier, as they were categorised into groups and not by interest (SSI3, Male, HI, PROSPER, Mangochi). Level of participant interest in engaging in programme activities may have varied over time. A participant from Phalombe observed that, "*When the weather is not behaving the commitment of people can go down and most lead farmers might find themselves not teaching people because a lot of people will have lose interest because they are not having good yield"* (SSI3, Female, SU, PROSPER, Phalombe).

For a small subset of participants, issues with project delivery including perceptions of inadequate coverage and continued misunderstanding of the programme approach, reduced their interest and commitment and discouraged participation.

Participants reported a range of issues related to project design and delivery as a barrier to participation in the programme (moderate contribution, medium evidence). A common complaint was in relation to the **coverage of the programme**, with BRACC seen to be targeting too few participants so not all community members benefitted (low contribution, medium evidence). In addition, **some activities were more accessible than others**. For example, environmental management and sanitation/hygiene interventions were open to all, as compared with livestock pass-on and cash for inputs, which were only provided to specific target groups (moderate contribution, medium evidence). Some participants were critical of the **programme's categorisation by activity approach**, rather than basing this on level of interest – especially if they were not eligible to receive livestock (goats). As reported in the process evaluation, although there was strong support for the nature of interventions overall, many participants commented on the **lack of provision of fertiliser** (or cash for this) (moderate contribution, medium evidence). Further, the **late provision of cash for inputs** limited the benefits of this intervention – and led to some participants either planting new variety seeds late or planting local variety seeds instead, limiting the yields seen as a result (low contribution; medium evidence). A small number of participants reported not receiving the expected inputs at all – whether seeds, cash, or goats (e.g. because they had not yet reproduced), receiving **late payment for work** carried out under the programme, or **not receiving an insurance payout**, despite the failure of their crops (moderate contribution, limited evidence). This served to reduce their confidence in the overall programme (see lack of interest/commitment above). This dissatisfaction largely stemmed from **participants' expectations misaligned** with the BRACC approach.

Participant non-compliance also limited the potential for positive livelihood outcomes in some cases (low/moderate contribution, strong evidence). There were several mentions of participants misusing the

payment received through the Cash for Inputs programme and spending the money other than for the intended purpose. FGD participants in the livestock pass-on programme also often mentioned that their peers would refuse to pass on their goats when it was their turn, resulting in the pass-on chain breaking down unless village leaders were able to intervene.

Participants acknowledged that early closure of the programme would limit the benefits of the programme as many of the activities need a longer timeframe of support to come to fruition

In addition, participants cited the **early closure and resulting short timeframe of the programme** as a factor that had limited the benefits seen under BRACC (moderate contribution, medium evidence). Activities were either not completed or there had not been enough time for the full benefit of these to be seen. For example, goats had not yet been passed on to secondary beneficiaries, and the beekeeping and mushroom picking activities in Nkhotakota were in their early phases. In some cases, the positive outcomes seen were due to interventions being a continuation from previous projects that had phased out. A participant from Balaka district gave the example that a tree cannot grow in two years and start improving the rainfall pattern (SSI3, Male, SU, PROSPER, Balaka). As a result of the early project closure, community members felt they will lack the resources and follow-up support needed to continue certain activities, such as the environmental management activities.

Market access and low prices continue to restrict programme potential, compounded by lack of market power of smallholder farmers.

Poor **access to markets** was a major restricting factor for the positive outcomes seen by participants, as there were few options for selling outputs produced under the programme, which limited profits earned (high contribution, strong evidence). As a participant from Nkhotakota (African Parks) summarised, *"…as much as we have more crops to sell… our market is with vendors who offer very low prices for our commodities and this has been a barrier to success in terms of income, as we are not able to generate more profits from our commodities, and this delays our progress towards development of our homes"* (SSI3, Male, High Income, African Parks, Nkhotakota). Markets are far away, and take time and money to get to, there are not established, reliable markets locally and so most community members **sell to vendors for low prices**, without any other option (moderate evidence, strong evidence). More reliable markets, such as the Agricultural Development and Marketing Corporation (ADMARC), do not open in time and participants generally need to sell their produce before this to remain food secure (medium evidence). The programme did little to change this situation for its participants. Sources of information about crop prices have not changed in the past three years – participants tend to access this information via the radio, other community members, Agricultural Extension Development Officers (AEDOs) and vendors at the point of sale, who, many participants reported, "impose" the price. Most participants had not tried aggregating produce to achieve better prices (strong evidence). At the same time participants faced **rising and/or inconsistent input prices** (moderate contribution; medium evidence). Some participants reported improved access to input markets during the programme, as the agro-dealers came to the community to sell to them (medium evidence). There was some concern amongst participants that this would go back to the status quo now the programme has ended.

In addition to a **lack of markets** and **low market prices** for outputs, some participants also faced **theft** of produce or livestock, thereby reducing these households' food security and/or income for addressing other household needs (low contribution; medium evidence). A female African Parks participant explained how she had been "duped" by a vendor – giving him 60 bags of soy beans to find a "good market" in Lilongwe and pay her later, never to see him again (SSI3, Female, High Income, African Parks, Ntchisi). Theft of livestock was mentioned by several PROSPER participants in Chikwawa and Balaka districts – whether given by the programme or bought with money they had earned/saved. One Chikwawa participant commented that *"thieves would only target Goal Malawi goats as they were easy targets as owners were not used to caring for livestock"* (SSI3, Female, SU, PROSPER, Chikwawa).

Participants continued to be affected by environmental shocks and stressors. In combination with contextual including economic factors, this serves to erode gains made through the programme

Most participants encountered multiple **environmental challenges** and **shocks and stressors** during the programme, for example it was common to be affected by dry spells, fall armyworm and/or flooding, which all

negatively impacted on participants' yields, and hence the level of income earned, limiting the positive outcomes seen under the programme (high contribution; strong evidence). **Dry spells or drought** and **fall armyworm** both reduced crop production, which caused food shortages/insecurity and had an adverse effect on income, as participants had fewer surplus crops to sell – whether in real terms, or in relation to anticipated improvements under the programme (high contribution; strong evidence). This, in turn, affected their ability to absorb the impacts of other shocks and stressors (high contribution; medium evidence). Many participants reported that they still harvested, despite a dry spell, due to, for example, planting early maturing, drought-resistant seed varieties, suggesting that BRACC had mitigated the impact to some extent (medium evidence). In many cases, however, fall armyworm led to low production, as participants had **insufficient funds** to buy pesticides to mitigate the effect, in part due to **inflated prices** (medium evidence). A participant from Phalombe reflected, *"the inputs we were given and the manure from goats could have really increased our yield if not for army worms"* (SSI3, Female, SU, PROSPER, Phalombe). In addition, **floods** washed away farming fields, thus reducing yields, spoiled stored seed and crops/food, and damaged houses and latrines (moderate contribution; medium evidence). Conversely, some participants reported a **lack of water** in their local area to use for irrigation, which has limited their capacity to increase production and achieve high yields (moderate contribution; limited evidence).

To a lesser extent, **death of livestock caused by disease**, such as Newcastle disease and African swine fever, also negatively affected participants' income, as they could not then sell this livestock to buy farm inputs or food or use manure to fertilise crops (low contribution; medium evidence). Some had vaccinated their livestock and so were less affected (limited evidence). Off farm, **Covid-19** adversely affected businesses and overall cashflow in the community (low contribution; medium evidence). For example, a participant from Chikwawa reported that "*my sound system business also went down because people did not hold traditional ceremonies functions anymore so I did not have any customers hiring from me"* (SSI3, Male, SU, PROSPER, Chikwawa). However, Covid-19 was not commonly cited as a limiting factor for participating in, or benefiting from, programme activities.

Box 9: Enablers and Barriers and Gender

PROSPER's Gender Equality and Social Inclusion (GESI) Strategy played a key role in facilitating equitable access of women and female-headed households to interventions. Implementing partners were very well versed in the GESI Strategy and the importance of being gender-sensitive in targeting processes and through the use of quotas in final selection for participation in interventions. Cognisant of gender roles, they recognised that in programmes where households were registered, it may be the woman who does the lion's share of the work. To increase likelihood of women benefiting, they often purposefully registered the woman as the participant. One IP explained for the Food For Assets programme:

"*When we are registering these beneficiaries at the beginning for example maybe you have a husband and a wife, most of the times we deliberately register the wife although maybe when it comes to working it is the husband who works but when it comes to getting the cash or food we want to make sure that it is the wife who gets the money because we know, culturally in Malawi women are the ones who manage our homes most of the times. So we deliberately make sure that when we are registering we register women although maybe when it comes to working anybody can come and work like the husband and the wife but when it comes to getting cash it is the wife who gets the money."* (*KII, BRACC programme staff, Phalombe)* (from the process evaluation)

Other enablers were capacity to benefit and, in some cases, successful participation in previous related initiatives. One female head of household attributed her inclusion as resulting from her hard work and participation in community development projects and how it was recognised that she would apply a similar level of enthusiasm to PROSPER interventions; whilst another said that the success related to the willingness of participants to put in effort to operationalise the advice that had been shared. Another female head of household explained that she had already been involved in access to finance through village banks, and so she continued under the auspices of PROSPER.

Despite those enablers, female-headed households did have a lower rate of participation overall, although this is explained by their greater prevalence in the HI category, which was targeted by fewer interventions, and was less well reached by the programmes intended to have broad targeting.

However, gender roles and norms also acted as barriers, particularly as having labour capacity was a prerequisite for participation. A much higher proportion of female-headed households were single adult than male-headed households (82% compared with 5%), thus reducing their labour capacity. Illness also impeded capacity to participate, whether of household heads or household members. Since gender roles typically mean that women take responsibility for caring duties, this can also act as a barrier. Gender roles also mean that women are less likely to have experience in productive livelihoods, which may have contributed to examples of female-headed households citing exploitation, either by market traders or being targeted by thieves (in the case of livestock).

11. Conclusions

This chapter summarises the evaluation's conclusions on progress towards achieving programme objectives before setting out conclusions about resilience, to be taken into account when designing future resilience-strengthening programmes, and lessons learned for continuation of resilience programming under BRACC.

These lessons will be shared with key stakeholders across FCDO through this evaluation synthesis report including a report summary. See also Use and Influence Plan in Appendix E.

11.1 Progress towards achieving BRACC outputs

The expected BRACC outputs in support of the programme's higher-level outcomes, and progress towards these, are:

1. *Intensified and diversified agricultural production and improved nutrition for targeted vulnerable households*

There is good evidence for this output in the 2021 evaluation, with some changes for marginalised groups (e.g. FHHs). However, the way the activities were targeted differently to different groups, with consumption support only given to the 'hanging in' group, means that in effect marginalised groups were under-targeted, especially considering they often had the best impact. Not giving productive assets alone to poor households makes sense, but there is wider evidence that consumption support plus productive assets works for the ultra-poor.

2. *Enhanced and inclusive access to markets and the productive resources necessary to develop increased secure and predictable incomes for targeted households*

The 2021 evaluation finds some progress towards enhanced and inclusive access to markets and productive resources, but it is not clear that this will be sustained. There has not been enough time for new norms to become embedded (e.g. will traders make an effort to supply the same areas in future?). In addition, input access is stronger than output market access. It is important to remember that not every programme needs to do everything, and the BRACC approach still had many good outcomes without addressing output markets.

3. *Vulnerable households and communities in targeted areas have reduced exposure to drought and floods*

Some effects of the watershed management are evident but it is difficult to envisage sustainability at this early stage (although promising signs that their value is already being seen, when often this takes a while with natural environment changes). Reducing exposure may not be a realistic goal for these types of interventions, for example in reducing the incidence of drought in the lifetime of a project. Mitigating vulnerability or impact from drought and flood makes more sense.

4. *Increased capacity of national, sub-national and non-state actors to prepare for, plan, monitor and respond to shocks.*

In the 2021 evaluation this output area appears to be the biggest shortcoming of the programme. Capacity may have been improved among implementing partners but there is little to no evidence of similar capacity

improvements among sub-national or national actors (from DRR and social protection perspectives).

5. *A strengthened and more shock sensitive social protection system*

There is a lack of evidence for a strengthened and more shock sensitive social protection system so far. It is difficult to get rapid progress in this sphere when working with government systems and it is clear from the experience of GIZ within BRACC (Component 3) that this needs a longer timeframe.

6. *Forest deforestation and degradation is reduced, and forest dependent communities have more sustainable livelihoods*

It is still too early to assess progress on deforestation since MCHF has only just begun implementation; early promising signs are helped by supportive political environment (proactive minister). We have stronger evidence for the sustainable livelihoods aspect, with good results so far from VSL and beekeeping.

7. *More effective, coordinated and targeted, government and donor investments*

There is no evidence at midline for this output.

11.2 Conclusions about resilience

The high-level objectives of the BRACC programme are captured in the impact and higher-level outcome statements. At the impact level, BRACC's objective is to contribute to a reduction in extreme poverty and an end to the recurrent cycle of hunger and humanitarian assistance in Malawi. Achieving this impact requires complementary long-term investments and programmes that address the wider structural challenges in Malawi, including a weak economy that is failing to keep pace with population growth. The high-level outcome in support of achieving impact is the strengthened resilience of the targeted 300,000 poor and vulnerable households (around 1.7 million people) to withstand current and future weather and climate related shocks and stresses.

It is difficult to make conclusions about resilience capacities and resilience outcomes from the programme. Progress after just over 2 years of implementation shows a reduction in extreme poverty for some, but how long it will be sustained is unclear. An extra year or two of full BRACC implementation could make a huge difference in embedding new practices and provide the opportunity to stress test against shocks, demonstrating the extent to which resilience is likely to have been strengthened. Sustainability will also be limited by the less-than-anticipated levels of governance and systems support. Theoretically, some financial cushion provides absorptive capacity, and if natural environment-related improvements are sustained that will help too. Anticipatory capacity does not seem well integrated, evidenced by little mention of climate information or early warning in the interviews. Adaptive capacity may have been built through improved knowledge, but it is too early to tell. There is little evidence of transformational change at this stage of implementation.

Conclusions about measuring resilience can be drawn. Measuring resilience is typically problematic, given that it has complementarities with poverty and income, but addressing poverty and growing income alone do not necessarily create resilience. Instead, resilience is context-specific and needs to be adaptive in the context of changing conditions (i.e. resilience in the face of current hazards may not be sufficient when that hazard profile changes). The datasets used in the evaluation of the BRACC programme can be divided into the following three broad categories:

- Indicators representing households' attributes, behaviours and capacities, which affect their ability to accommodate shocks, including indicators of household composition, domestic infrastructure, economic activities, agricultural practices, risk outlook, and so on (*ex-ante* or 'predictive' indicators of resilience that that tell us how well households are likely to fare in the face of shocks, based on their ability to anticipate, absorb and adapt to these shocks)
- Indicators capturing households' experiences of and responses to stresses and shocks, including recovery times, yield losses, agricultural sales, crisis sales, etc (*ex-post* or retrospective indicators that tells us how households have been impacted by shocks, where such shocks have occurred)
- Indicators representing factors that influence how well households can manage and recover from shocks, but might also be affected by those same shocks, including assets such as livestock and other assets that

might be sold in a crisis, food security, savings, expenditure as a percentage of income, and so on (*ex-ante* or *ex-post* indicators, depending on whether they are measured before or after a shock).

Predictive resilience indicators can be placed on a more reliable, empirical footing by examining statistical relationships between category 1 indicators and category 2 indicators, with the latter measured after the former. For example, correlations can be examined between category 2 indicators from one year and category 1 indicators from the previous year, to determine which of the latter indicators are the best predictors of impacts captured by the former indicators. These can then be selected as key resilience indicators based on their power to predict the outcomes. Category 3 indicators can be assigned to category 1 or category 2 depending on which period they represent.

Any such methodology for the empirical derivation of resilience indicators should examine the extent to which indicators are independent, to minimise redundancy and bias. It should also address the role of climate variability by conducting the above analysis for different periods, or focusing on periods including identifiable climate hazards/shocks. The analysis could be undertaken for periods including different types or and/or magnitude of hazard, to address the hazard specificity of resilience.

A complementary approach to the empirical derivation of predictive resilience indicators is the tracking of resilience outcomes using 'impact level' indicators that can capture the effects of climate hazards and associated shocks and stresses. If resilience-building measures are effective, they should result in stable or improved human wellbeing and development outcomes, even in the face of intensifying climate hazards. Common indicators used to track human wellbeing and development performance therefore can be used to assess the cumulative success of resilience and adaptation interventions at multiple scales. To understand resilience and adaptation effectiveness, these impact level indicators need to be interpreted in the context of climate information. For example, stability or improvement in development and wellbeing indicators in the absence of significant climate stresses and shocks tells us nothing about resilience or adaptation, whereas stability or improvement in these indicators in the face of demonstrable climate shocks that may be intensifying indicates that resilience and adaptation interventions have been successful in reducing climate risks[42]. There is also scope to interpret impact indicators in the context of climate information based on simple narratives, which require climate information of sufficient quality to indicate whether relevant hazards are worsening, diminishing, or not changing significantly. Over shorter timescales, and in contexts where there are no clear narratives, more sophisticated approaches are required. These might include the development of counterfactuals based on a comparison between observed values of impact level indicators and predicted values based on correlations with climatic variables, where such correlations exist; alternatively, they might be based on qualitative information based on beneficiary surveys focusing on whether and how resilience and adaptation interventions have delivered benefits. For more information, see the synthesis paper on resilience measurement[43].

12. Lessons Learned

The BRACC programme was designed to accommodate adaptive programming, whereby lessons learned through monitoring and evaluation activities could feed directly into potential course correction. Programme budget cuts and early closure of the NGO consortium led activities under PROSPER meant that adaptive programming processes could not be implemented. This section sets out the main lessons learned to date. The extent to which the UN consortium will adjust its focus in line with the most successful activities, learning from this 2021evaluation, remains to be seen.

12.1 Lessons for designing resilience and adaptation programmes

A number of lessons arise from the 2021 evaluation for those designing resilience strengthening and adaption programmes.

- Evidence from BRACC in the 2021 evaluation suggests the layering approach with participants adopting multiple, linked interventions is more effective in achieving desired outcomes than participating in just one or two activities.

- Integrated approaches to market development are key to resilience building – not necessarily the norm for NGOs and UN agencies. The design adopted in BRACC to do this was quite innovative by including PROSPER Markets, led by a private sector partner with experience in market development who could expressly address this rather than just assuming it would happen by chance. But, like other things, the question is whether it took place for long enough to embed. Evidence highlights more emphasis is needed on market support given the ways that lack of access to (good) markets and lack of market power of smallholder farmers impede their ability to fully realise potential benefits of the programme.
- In the Malawian context, the crisis modifier feature is an essential component of resilience programme design in order to cushion livelihoods against extreme shocks, and protect resilience gains. By working through national structures to augment the lean season response, this function protects resilience gains of Malawi more broadly than the programme *per se*. The inbuilt flexibility in the mechanism makes it challenging to disentangle the individual/household level benefits, but the aggregate impact is very positive.
- Timeframes are key: resilience strengthening relies on systems change and this takes time. Coordinated action across different institutional levels also takes time and sustained effort.
- Is it possible to aim to build resilience for populations (not just HI, but also SU and SO) that have current deficits in capacity to be food secure (yet alone have a livelihood)? Is it necessary to have a baseline level of money, food and wellbeing before we even think about building resilience in the longer term? Conflation of the terms poverty reduction and resilience building throughout the ToC suggests that even in design there is the assumption that one does the other, which may not be the case due to timescales etc..
- It is advisable to design a programme with adaptive management in mind without giving the financial management flexibility to enable it? FCDO placed strong emphasis on/desire for programme adaptations, but the budget restrictions from year 2 meant that adaptations identified could not be actioned by the implementers.
- The larger a programme gets, the greater the transaction costs for coordinating, which needs to be appropriately budgeted by all actors. All call documentation should draw attention to this so that it is done from the earliest stages.

12.2 Lessons for implementing resilience and adaptation programmes

There are a number of lessons for implementation:

- Value of implementing “whole of community” approach: while some value was seen in the targeting categories in terms of ‘matching’ participants to right activities, in terms of having the capacity to carry them out, in contexts like Malawi where there is such widespread need and also demand for the interventions it may be more socially acceptable to implement across an entire community.
- While training is seen to be a highly sustainable approach, start-up resources such as inputs and cash payments, as well as access to capital through VSLs, have been crucial to enable people to put that training into practice, especially in a context where people are often unable to meet their basic needs especially during the so-called ‘hunger gap’.
- Demonstration effects are crucial to take–up. Success of the lead farmer approach is evident in this regard, but also underlined by the evidence of people taking their time to adopt and waiting to see results achieved by their peers first. Behaviour change is very high risk in contexts where poverty is so extreme and incomes are so low and precarious that there is no margin of error.
- Participation crucially relies on access to resources above and beyond those required to meet household needs (including food and school costs). This is backed up by the evidence on spill-over effects, with non-participants ‘selecting in’ and emulating programme activities so long as they have the resources (start-up capital) to do so.
- Even where a programme is focused and committed to women’s inclusion, in the way that BRACC is, gender roles and norms persist and act as barriers to women’s participation. Overcoming these gender

roles and norms requires a dedicated Gender Equality and Social Inclusion Strategy to underpin all activities, and appropriate human resources training to ensure its effective implementation (and that roles and norms that give rise to inequality are not inadvertently replicated within the programme implementation mechanisms).

13. Recommendations

The evidence and lessons learned from evaluating BRACC just over two years into implementation lead to a number of recommendations for resilience programme design and implementation that may be taken forward in the remainder of activities that will continue to be implemented under BRACC by the UN consortium, or applied to future programming.

Recommendations for Programme Design:

- Design implementation consortiums to balance comparative advantage of the different partners and streamlined management, and ensured that consortium management is well resourced. While inclusion of diverse implementing partners can strengthen implementation by allowing a project to draw on each partner's learning and capacities, there are costs to coordination. Consortia should be carefully designed to leverage unique capabilities, while also ensuring that the number of partners is reasonable and that project management approaches are complementary. Where consortia are used, strong support and institutions should be in place to facilitate coordination. A knowledge management partner could assist in this, but this partner should be in place ahead of project planning and implementation.
- Programmes with a focus on adaptive management need timelines and mechanisms that facilitate this objective. Adaptive management requires time to innovate, implement, evaluate, and adapt; short or truncated project timelines limit the ability to complete these cycles. Mechanisms including flexible budgets and financial systems, as well as flexible approaches to monitoring and evaluation, are needed to enable adaptation, and ensure that programme evaluation keeps pace with programme adaptations. Joined-up monitoring and evaluation linked to adaptive management approaches should also be in place from the beginning.

Recommendations for Resilience Intervention Design:

- It is worthwhile to spend time early on to manage participant expectations. Given the prevalence of previous related initiatives in Malawi, there are often preconceptions about targeting (e.g. poorest of the poor) or intentions (poverty reduction and food security), and the efforts PROSPER made to explain why they were targeting different wealth groups and providing training rather than assets were widely appreciated. This is a good practice that needs to be continued – as no projects are ever going to be working somewhere where no other projects have previously taken place.
- Consider integrating resilience-focused programmes alongside programmes focused on meeting basic needs, such as social protection programmes or ultra-poor graduation programmes. The BRACC programme highlighted the challenges that the poorest and most disadvantaged households face trying to build resilience, or even participate in key interventions, while also addressing food security, adequate clothes and housing, and education expenses. Programme targeting often restricted lowest wealth groups from participation in popular and impactful activities due to concerns that immediate needs or lack of complementary resources would reduce the impact of these activities, and in many cases, this was likely true. However, disadvantages households that were able to participate often experienced the greatest impact. This suggests that strategies that enable the poorest household to successfully participate in these interventions have the potential to be highly transformative. The PROSPER model of bundled resilience interventions could be layered onto programmes targeting basic consumption, or could be a programme that households graduate into from more basic support.

Recommendations for Resilience Measurement:

- Measuring resilience progress:
  - There is a need for clearer graduation pathways and measurement of thresholds and criteria for different HH categories/graduation
  - Measurement of CSA adoption/practice can be further refined. The annual survey asked about 15 different interventions, but nuancing which are high impact / desirable to adopt, versus others that are time/resource intensive to adopt and might be challenging for households.
- Strong theoretical underpinning to the drivers of resilience is necessary to pick indicators/design an index that captures context-specific resilience.
- The resilience index analysis shows further interesting and useful analysis could be developed. In particular there is a risk of including too many circular-referring indicators that capture aspects of poverty and income without explicit theoretical linkage to resilience. Engaging NRS and other stakeholders such as Titukulane potentially in a workshop focusing on resilience measurement, setting definitions for HI/SU/SO targeting categories as well as graduation etc. would be a useful activity to take forward to build on lessons learned.

Recommendations in relation to the evaluation:

- The evaluation team faced severely 'squeezed' timeframes for carrying out the evaluation with expanded scope effectively at midline. From the end of data collection, the team worked to a two-month timetable to complete both quantitative and qualitative analysis, synthesis and report writing for the deadline imposed by the funder. Given that 6 months was allowed for IFPRI's baseline quantitative work alone this represents a substantial constraint. It is recommended that FCDO allows further time post review of the evaluation report to work with the UN consortium on developing further the lessons learned into priority actionable recommendations to support the remainder of the implementation going forward.

Recommendations for UN Consortium as they continue to implement:

- Lack of understanding of the way the programme has been designed to focus on capacity strengthening and asset building rather than hand-outs persists in BRACC, affecting people's perceptions of the programme and discouraging participation. As the UN consortium implementation is due to continue without the cash transfer element, strong and clear messaging and communication will be needed to ensure continued buy-in, as well as ensuring activities carried out and assets built so far continue and deliver actual benefits. This is especially crucial given the importance attached to elements like watershed payments for meeting basic needs.
- Potential gains made through programme participation may be eroded by exposure to shocks and stressors during implementation, suggesting mechanisms are necessary to protect these gains while resilience is being strengthened. A crisis modifier function performs well in this regard.
- Continuing with strong and clear messaging of programme approach and objectives will help support continued and further adoption or BRACC activities. This is especially important given the removal of cash transfer elements of the programme in a context of annual hunger gaps and widespread difficulties meeting food needs. Even though programme targeting was designed around people's likely ability to be able to participate in specific activities, in reality poverty profiles are relatively 'flat' and need is great.
- More time is needed for further discussion and communication of evaluation findings. It would be useful to bring together all stakeholders involved in implementing the programme in a hands-on dissemination workshop to discuss the meanings behind the findings and the recommendations and adaptations that appear to be emerging from the evidence in the 2021 evaluation.

Appendices

Appendix A BRACC Hub (Knowledge, Policy and Implementation Support Manager) Terms of Reference

See separate document

Appendix B Overview of BRACC Monitoring, Evaluation and Learning Framework

The BRACC Hub takes an integrated approach to the BRACC programme Learning Agenda, with a 'combined evidence pot' to address both strategic and responsive learning needs and inform programme implementation and outward facing policy, advocacy and comms activities. Evidence and learning from all BRACC components will feed into and contribute to the wider BRACC evidence base. The BRACC Hub's evaluation activities under the Monitoring, Evaluation and Adaptive Learning (MEAL) output have both an accountability and learning function.

The main components are:

- Process evaluation
- Mid-term and endline evaluation (PROSPER RCT and community survey)
- Qualitative data collection
- Quarterly beneficiary feedback interviews (PROSPER)
- Potential Mechanism and framed-field experiments to investigate and provide insights on specific implementation mechanisms.

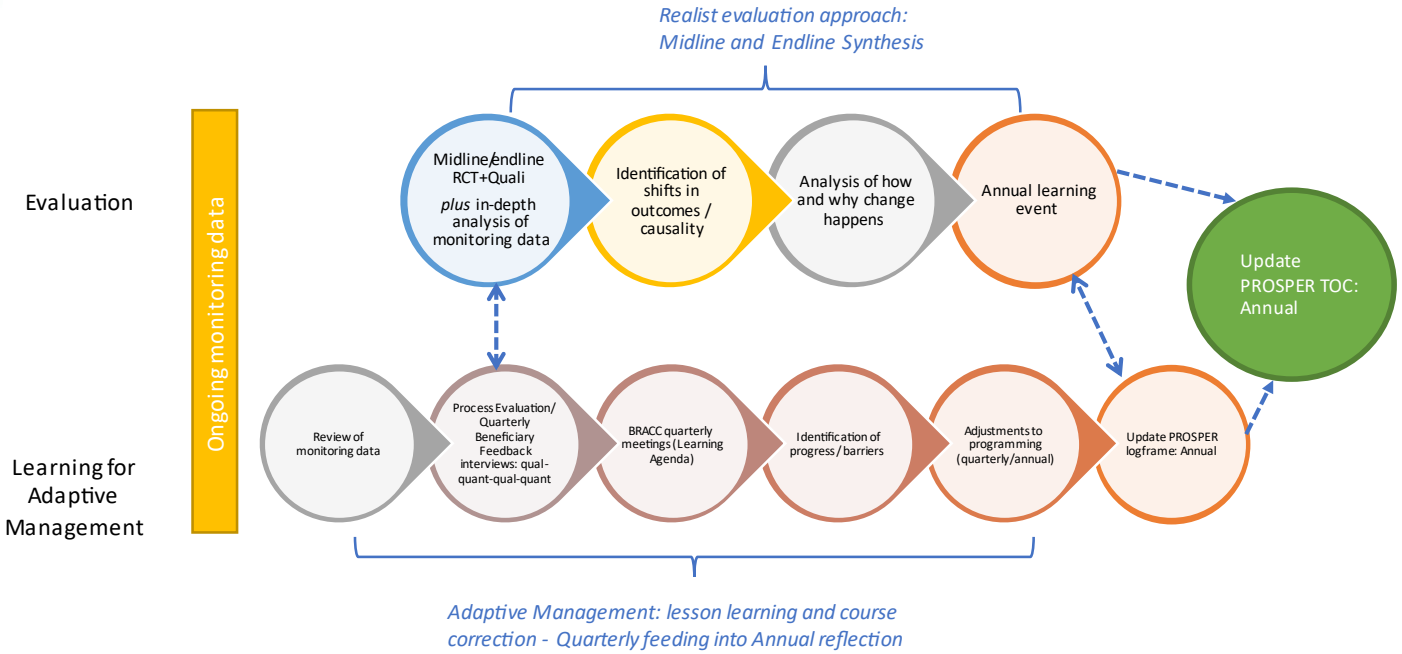
Process evaluation will be operationalised through two interconnected MEAL workstreams. The process evaluation (workstream 1 below) carried out at the end of BRACC Hub's inception period and in Year 2 Quarter 4 of the programme forms the foundation for the PROSPER quarterly beneficiary feedback interviews, to contribute to ongoing process reflections (workstream 2) :

1. Process evaluation (partially BRACC-wide) in Year 2 Quarter 4 (February-March 2021), focusing on qualitative data collection across the BRACC programme ('Implementation process' and 'Context') with a further consideration of PROSPER change pathways ('Mechanisms of impact');

2. Quarterly beneficiary feedback interviews (ongoing, PROSPER only), primarily used to inform the real-time adaptive management of the PROSPER programme. These interviews aim to give a representative snapshot of the status of participants (e.g. adoption rates of interventions, consumption, exposure to weather shocks and poverty) and their experiences of the programme's implementation processes, including awareness and use of the beneficiary safeguarding reporting mechanism. It will not aim to assess impacts of PROSPER, although inferences will be made with the assumptions explained. Interviews will take place quarterly and may be qualitative or quantitative depending on the nature of the learning questions.

By aligning the MEAL approach to PROSPER/ BRACC quarterly and annual revision and adaptation cycles and the overall Learning Agenda governance framework, this will ensure the relevance and timeliness of evidence for decision-making in the programme (Figure 8).

Figure 9 BRACC/ PROSPER MEAL Cycle



Appendix C BRACC and PROSPER Theories of Change

BRACC ToC Narrative

The BRACC Programme ToC posits that the five Components implemented under BRACC will ultimately lead to a reduction in extreme poverty and an end to the recurrent cycle of crises and humanitarian assistance in Malawi. The ultimate impacts of the programme will be to contribute to the SDGs, notably: SDG 1 No Poverty; SDG 2 Zero Hunger; SDG 7 Affordable clean energy; and SDG 13 Climate Action.

The five Components were included in BRACC to address not only the barriers to resilience identified at the level of households and communities, but also to create sustained, transformative changes in the key systems that support community and household resilience, including market systems, government systems, and environmental resources. Knowledge management is also seen as a critical part of this process, as it facilitates learning and the improvement of policies and programmes across all Components.

Primarily through Component 1 households and communities are targeted with: 1) interventions that promote more sustainable and climate smart agriculture and less-weather-dependent livelihoods; 2) strengthened linkages to private sector partners and market systems; business and skills training; and 3) interventions that transfer assets and promote cash savings and access to loans (e.g. Village Savings and Loans Associations, VSLAs) and other financial services, such as micro-insurance. These interventions are designed to enable individuals, households and communities to build their capacity to anticipate, absorb, and adapt to climate shocks.

Household-level interventions are designed to target households in different wealth categories in different ways. The BRACC ToC assumes that households at different wealth levels have different resilience capacities and different needs, and that interventions will be most effective if targeted to these different categories. For example, the poorest households may need consumption support to ensure they have sufficient absorptive capacity to maintain food security in the face of shocks such as drought that affect farm productivity, while better-off households may have sufficient food security, but might benefit from interventions that build their adaptive capacity through measures such as diversifying into new crops or livelihoods.

These household and community interventions are delivered alongside complementary investments in land, water and natural resources management; disaster risk reduction (DRR) and Early Warning Systems (EWS); strengthened community mobilisation and local governance structures, such as Village Civil Protection Committees ; and innovations and partnerships which help develop a vibrant private sector that is better able to service productive farmers. These interventions are designed to transform the systems that affect resilience in Malawi, giving households and communities better access to tools and resources such as information, new technologies, and access to markets. Government social safety net systems are also an important component at the household level, ensuring that the most vulnerable households are protected through Component 2 with short term, scaled up assistance when needed to prevent them resorting to negative coping strategies and to protect gains made under Component 1.

To bring about the longer term sustainable and transformational change at the systems level, improved capacity for research, learning, policy analysis and advocacy, communication, and coordination among actors is also needed. BRACC will support this through activities including: high quality research and analytics; monitoring and evaluation; and learning to build evidence on what works; more coherent policy, institutional and financing arrangements for climate change adaptation, DRR and social protection; and greater national and district level capacity to implement programmes and policies in a coordinated way.

Delivering all of these components together is expected to result in improved resilience capacities, and reduced risk of shocks, at the household and community level, including*:* 1) Households being able to accumulate assets, access more diverse income streams, and improve their capacity to adapt to long-term climate changes (Output 1); reduced exposure of households and communities to drought and floods because natural resources are managed sustainably (Output 2); and households, communities and districts being better prepared for shocks and faster and better targeted responses when needed (Output 3).

At the level of larger systems, these interventions are expected to result in:

- More efficient markets that facilitate access to inputs, technologies, information, and output markets in

a manner that is more inclusive and more conducive to resilience-enhancing investments (Output 2);

- Shock-sensitive safety nets programmes that can better support the most vulnerable and chronically poor households, and which can scale up to protect others during lean season or in the aftermath of a shock (Output 4); and
- More effective, coordinated and targeted government and donor interventions (Output 5).

If all five components deliver their intended outputs, the ToC is that this will result in fewer chronically and transient poor people falling into the humanitarian caseload and a greater chance that households will accumulate the assets, incomes and skills necessary to engage in less precarious livelihoods, participate in markets and to move up out of poverty in the longer term. This will ultimately contribute to achieving the longer term impact (reduction in poverty and end to recurrent cycle of humanitarian crises), and contribute to SDG 1,2, 7 and 13, among others. Assumptions underlying the change pathways directly related to achieving the BRACC outputs are in the logframe mapping in the MEAL Framework.

Inclusiveness is an important cross-cutting theme within the ToC. All interventions are designed to support the participation of women, youth and other marginalised groups. As described above, different interventions have also been designed for households of different wealth levels. It is recognised that different groups may have different pathways to building resilience within the ToC, and there may be different risks to success with different groups. For example, female-headed households may face different or more severe constraints than male-headed households, such as less availability of household labour.

High Level Assumptions

The BRACC Hub has worked with PROSPER to unpack the ToC and define and refine the narrative (see previous section) and the key assumptions underlying the programme logic and hypothesised change pathways. The MEAL work will aim to uncover evidence to explore and refine and redefine the assumptions through the course of the programme, including as part of the process of adaptive management and revisiting the ToC.

Assumptions at the programme level are grouped as follows:

A1. Improved food security, income, targeting and delivery of social protection and policy coherence results in strengthened resilience and reduced humanitarian assistance

- Resilience interventions are adopted by programme beneficiaries and result in their ability to retain assets, increase crop production and run sustainable businesses;
- Households find the available climate and weather information accessible, timely and relevant for their production decisions;
- Households have the knowledge/labour/capital requirements to implement these decisions;
- Humanitarian response decisions are not unduly influenced by political priorities obscuring programme impacts;
- BRACC represents a cost-effective means of obtaining results around resilience-building/adaptation;
- GOM is able to incorporate resilience and climate change adaptation into its decision-making (at multiple levels/scales);
- Relevant government actors and change agents are willing to adopt resilience strengthening and adaptation strategies having seen successful pilot outcomes (other barriers, e.g. political, institutional, do not prevent uptake and delivery of proven approaches);
- Communities believe in and want to receive interventions targeted to different wealth groups;

- The interventions being brought to the communities are those that will increase their resilience; and
- Uneven resourcing across PROSPER communities will still result in expected outcomes.

A2. Climate and economic shocks do not go beyond the country's capacity to cope

- The operating environment is supportive enough to allow interventions to impact on local capacity;
- Improving access to climate and weather information, including early warning systems, strengthens resilience. Access to climate change information leads to changes in attitude and practice. Climate information will help farmers make decisions that increase resilience to shocks and stresses;
- Improved EWS and community-level disaster risk reduction will reduce flood and drought risk and enable communities to respond better in times of crises; and
- Increased district capacity to oversee resilience programmes will result in improved systems for resilience strengthening among government stakeholders. Progress is not impeded by staff turnover (e.g., at district level)

A3. Increased investment in basic services, including health and education

- Improving basic services delivery in different sectors strengthens household resilience.

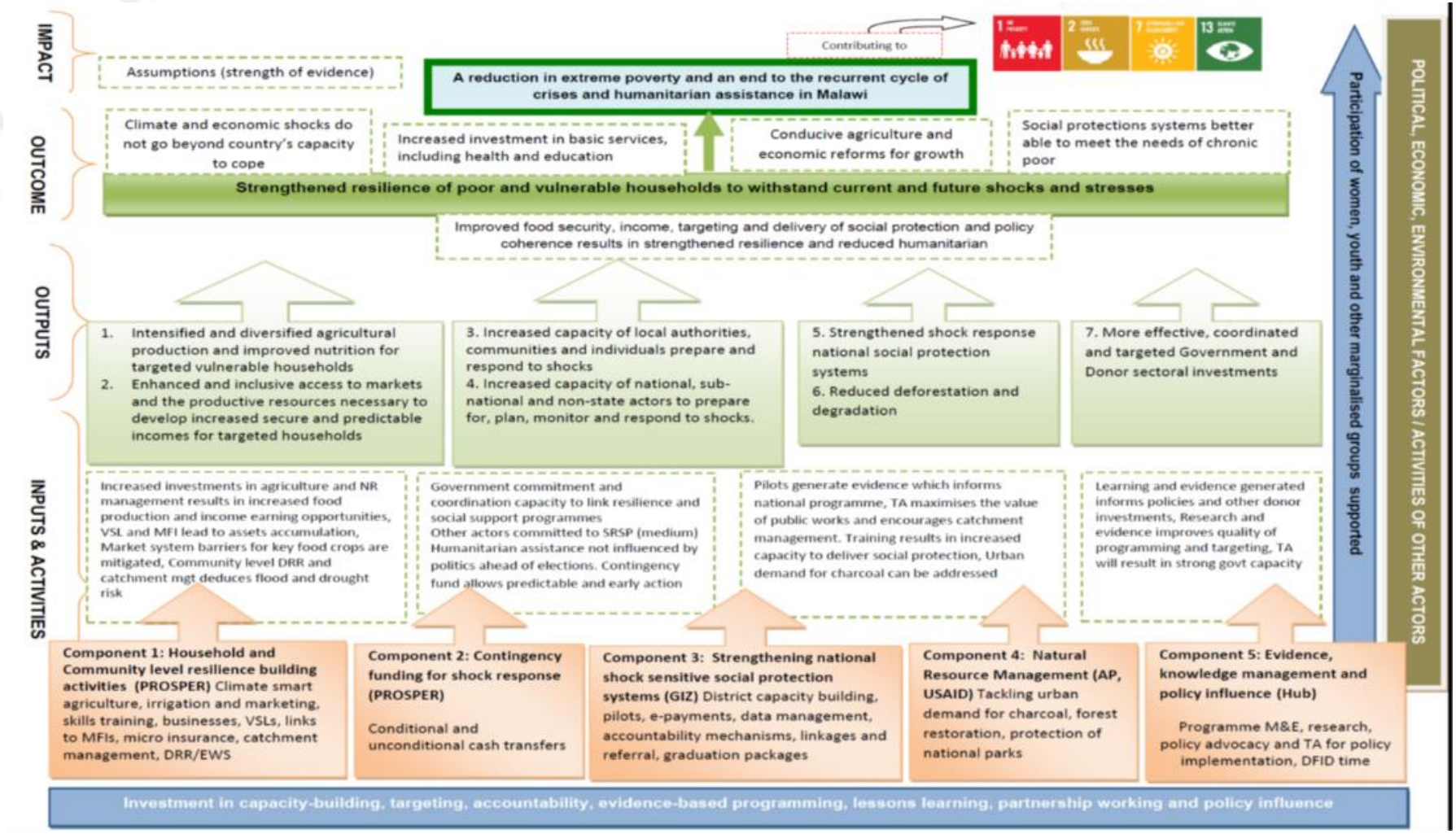
A4. Conducive agriculture and economic reforms for growth

- Improving access to markets (physical/regulatory systems/pricing information etc.) for small holders and other producers strengthens resilience to climate extremes and disasters.

A5. Social protections systems better able to meet the needs of chronic poor

- Strengthened political leadership for resilience, climate change adaptation and social protection;
- Appropriate safety nets, including cash transfers, will reduce negative coping strategies in times of crisis; and
- New ways of providing assistance via social protection will increase predictability of transfers.

BRACC Theory of Change Diagram



BRACC Logframe

BRACC Outcome Indicator 1	**Resilience Capacity**	**PROSPER (C1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
Number of people whose resilience has been improved as a result of project support (ICF KPI 4)* *Using Resilience Index	Absorptive Anticipatory Adaptive Transformation	Number of people whose resilience has been improved as a result of project support (KPI 4)**		(I2) Individual's self-evaluation of their household's and social network capabilities and capacities in responding to risk, disaggregated by type of livelihood, gender and age (i.e. transformative capacity) *Perceived access to school, markets, health facilities and financial capital	
Outcome Indicator 2					
Cumulative aggregate increase in income among poor people	Adaptive	Cumulative aggregate increase in income among poor people O5. Cumulative number of poor people with additional sales due to improved performance	The percentage of ultra-poor households in the target districts has been reduced (focus on focus districts of KfW in the framework of the Social Cash Transfer Programme, SCTP)	(I1) Household assets and access to food *Value of productive assets: land, livestock and tools *Average per person daily income, disaggregated by type of livelihood, gender and age *Per capita daily expenditure (proxy)	
Outcome Indicator 3					
% Households classified as being marginally food secure or food secure, disaggregated by group (marginally and food secure) - Using CARI index	Absorptive Adaptive	Household(s) classified as being marginally food secure or food secure, disaggregated by group (marginally and food secure)			
Outcome Indicator 4					
Difference in difference comparison of change in yield of maize and other crops against the baseline figure in PROSPER and non-PROSPER target areas	Absorptive	% change in yield of maize and other crops against the baseline figure in PROSPER and non-PROSPER target areas			
Assumptions		**PROSPER Assumptions**			
• Resilience interventions are adopted by programme beneficiaries and result in their ability to retain assets, increase crop production and run sustainable businesses. • Households find the available climate and weather information accessible, timely and relevant for their production decisions. • Households have the knowledge/labour/capital requirements to implement these decisions.		Outcome Indicator 1: 1. Improvements in yield and income leads to an improved per capita expenditure 2. Increases in yield, income and post harvest technologies is expected to improve the minimum months households have adequate food provisioning 3. Training leads to uptake of technology and application of knowledge in CSA and GAP, leading to increased yields, leading to increased food security. 4. Input Fairs / distributions and demonstration plots will influence adoption of promoted technologies. 5. Increased access to finance and insurance leads to improved ability to cope with and recover from shocks			

• Humanitarian response decisions are not unduly influenced by political priorities obscuring programme impacts.	6. Enhanced early warning systems leads to greater ability to anticipate and absorb emergencies. 7. Promotion of gender equality leads to greater inclusiveness in household decision-making, resulting in better allocation of household resources. Outcome Indicator 2 : 1. Improvements in yield is expected to allow targetted population to have enough surplus to sell and improve incomes. Outcome Indicator 3: 1. Programme providing transfers , climate information and giving support in nutrition plus lean season transfers. 2. Community investments in the SU/SO will have a positive impact on the HI group hence improving livelihoods Outcome Indicator 4 : 1. Agricultural input markets are able to respond to an increased demand for quality inputs at reasonable cost 2. Local authorities and programme participants proactively participate in agricultural production interventions Outcome Indicator 5: 1. Individuals who would have additional sales due to improved performance as a result of the increased access to productivity or income enhancing inputs or services /markets 2. Farmers are encouraged to sell collectively 3. Farmers will produce surplus to sell 4 Farmers are linked to private sector buyers

OUTPUT 1: Intensified and diversified agricultural production and improved nutrition for targeted vulnerable communities.

Output Indicator 1.1	**Resilience Capacity**	**PROSPER (C1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
Number of households implementing Climate Smart Agriculture (CSA) practices	Adaptive	Number of households implementing Climate Smart Agriculture (CSA) practices 1.7 Number of individuals who have received FCDO supported training in climate smart agricultural practices.	..	3.2. Community members participating in pilot conservation agriculture, enterprise development, vocational training or those who have received access to an irrigation water systems have higher (and more year-round) income or access to resources; disaggregated by type of beneficiary and gender	
Output Indicator 1.2					
Number of farmers who report improvements in extension services received (by type of extension provider: public, community-based, private)	Adaptive	Number of farmers who report improvements in extension services received (by type of extension provider: public, community-based, private)	..		
Output Indicator 1.3					
Hectares of farm land under irrigation (disaggregated by size of scheme, type of technology)	Adaptive	1.3a Number of people benefitting from irrigation activities in targeted irrigation schemes supported by PROSPER Number of Hectares under irrigation support	..	3.3. People gaining access to water see improved well-being due to lower prevalence of water-borne disease and lower opportunity cost fetching water	
Output Indicator 1.4					

Percentage of women between 15-49 reaching the minimum dietary diversity score	Absorptive	Percentage of women between 15-49 reaching the minimum dietary diversity score			
Output Indicator 1.5					
Percentage children 6-23 months consuming a minimum acceptable diet (MAD)	Absorptive	Percentage of children 6-23 months consuming a minimum acceptable diet (MAD)			
Output Indicator 1.6					
Number of farmers that received agricultural inputs to promote increased productivity during the reporting year - Annual target	ðAdaptive	Number of farmers that received agricultural inputs to promote increased productivity during the reporting year			
Assumptions					
• Programme delivery can sustain current rate of progress with scale out of VSL and CSA technologies; • Cascade model of extension is effective; • Basic seed is available to enhance local seed supply for diverse crops, • Information is available from national meteorological services that is relevant and of sufficient quality to disseminate.		1. Training leads to uptake of technology and application of knowledge in CSA and GAP, leading to increased yields, leading to increased food security. 2. Input Fairs / distributions and demonstration plots will influence adoption of promoted technologies. 3. Farmers are able to manage pesticides such as the fall army worm 4. GoM staff to be trained as MTs will be available to conduct the localised season-long ToF courses in their respective districts/EPAs with minimal additional operational costs; 5. GoM staff and Master Trainers will implement FFS as part of their routine advisory service within the framework of the DAESS 6. Availability of resources to convert knowledge and practice into tangible results at household and community level Output 1.2: 1. Lead Farmers and extension service providers will cascade trainings consistently to mentored farmers 2.Demonstration plots used as training vehicles will improve extension services Output 1.3 1.Water resources are maintained for throughout targeted community and by others who share the resource 2. Sources of water for irrigation are available in targeted areas Outcome Indicator 1.4 and 1.5: 1. Local authorities and project participants proactively			

	participate in nutrition behaviour change interventions 1. Farmers will be able to participate in seed fairs and redeem their vouchers 2. Supplier promoting seeds avails seeds on time during the planned seed fairs 1. LF identified and trained in target communities and cascade training to follower farmers 2. Trainings will be well structured and relevant to farmer needs 3. This is a mix of the LF and FFS approach			

OUTPUT 2: Enhanced and inclusive access to the productive resources necessary to develop increased, secure and predictable incomes.

Output Indicator 2.1	**Resilience Capacity**	**PROSPER (C 1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
Number of market system actors that invest in pro-poor business models	Adaptive	Number of market system actors that invest in pro-poor business models			
Output Indicator 2.2					
Number of poor people with increased access to productivity or income enhancing inputs or services /markets	Adaptive	Number of poor people with increased access to productivity or income enhancing inputs or services /markets			
Output indicator 2.3					
Number of households with access to financial services as a result of FCDO support (FCDO Global Indicator List)	Absorptive	Number of households with access to financial services as a result of FCDO support (FCDO Global Indicator List)			
Assumptions					
• New climate resilient business opportunities are viable in the project context; • Market actors respond positively to incentives unlocked by PROSPER and are willing to absorb and act on new knowledge and business practices. • Insurance products are affordable and lead to producers being less risk averse in their decision making and increase investment		1) Market actors respond positively to incentives unlocked by PROSPER and are willing to absorb and act on new knowledge and business practices 2) Availability of insurance will lead to producers being less risk averse in their decision making and increase investment 1. VSL group members graduate and access formal loans 2. Targeted population benefit from CUMO insuarance products 3. Business focused training and social behaviour change expected to increase access to financial services including savings and credit.			

OUTPUT 3: Vulnerable households and communities in targeted areas have reduced exposure to drought and floods

Output Indicator 3.1	**Resilience Capacity**	**PROSPER (C 1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**

Number of people supported by FCDO programmes to cope with the effects of climate change (KPI1) - Annual target - as per ICF guidelines	Anticipatory Absorptive	Number of people supported by FCDO programmes to cope with the effects of climate change (KPI1***)			
Output Indicator 3.2					
Areas (ha) of degraded micro catchment/watershed rehabilitated/conserved	Absorptive	Areas (ha) of degraded micro catchment/ watershed rehabilitated/conserved.			
Output Indicator 3.3					
Number of people reached during the lean season response with cash transfers - Annual target	Anticipatory Absorptive	Number of households reached during the lean season response with cash transfers			
Output Indicator 3.4					
Percentage of people affected who receive humanitarian assistance via government social protection channels in districts above 20% MVAC need	Absorptive	3.4 Percentage of people affected who receive humanitarian assistance via government social protection channels in districts above 20% MVAC need 3.5 Percentage of lean season transfer value (going to beneficiaries) in relation to total operational costs in districts above 20% MVAC need 3.6 Total amount of lean season cash transferred to targeted beneficiaries 3.7 Percentage of timely lean season transfers reaching beneficiaries per month			
Output Indicator 3.5					
Household(s) using EWS and climate information for floods and droughts to reduce risks to their lives and or property	Anticipatory	Percentage of the flood prone population with reduced exposure to flooding in targeted local authorities			
Assumption		**Prosper Assumptions**			
• Cooperation with District Natural Resource teams, technical skills in catchment planning and irrigation scheme development are available, • Timely procurement of materials for implementation of works during appropriate seasons; • Institutions established by the programme for managing water and forest are functional and equitable. • Humanitarian stakeholders willing to be coordinated; • Appropriate institutional arrangements can be established to enable rapid response.		Indicators 3.1 and 3.2: Micro-catchments to be intervened will be identified with full participation of local authorities and communities; The areas under intervention will not have land-related conflict issue and arrangements with communities and traditional authorities for interventions are conducive for project interventions; Willingness and commitment of community members and Government staff to support activities related with the different activities planned. Active involvement of local authorities and communities, particularly in the implementation of the Integrated Catchment Management approach and Disaster Risk Management activities Indicators 3.3 - 3.7: Humanitarian response will be determined based on needs following a distaster in the targeted areas			

OUTPUT 4: Increased capacity of national, sub-national and non-state actors to prepare for, plan, monitor and respond to shocks.

Output Indicator 4.1	**Resilience Capacity**	**PROSPER (C 1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**

Number of districts with integrated coordination, monitoring and social accountability systems for social protection/resilience and emergency interventions	Anticipatory Absorptive Transformation	Number of districts with integrated coordination, monitoring and social accountability systems for social protection/resilience and emergency interventions	1.1. A joint review and adaptation of the implementation plan for the three pillars of the MNSSP II (consumption support, resilient livelihoods and climate shock-sensitive social protection) at which the line ministries, DPs and district councils participate isdocumented. 1.2.In 11 districts and 110communities, harmonized Social Support Committees are functional according to the tasks defined in their ToRs.		
Output Indicator 4.2					
Number of districts development plans that implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030	Anticipatory	Number of districts development plans that implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030	2.1.80% of all extension workers and district employees (out of which approximately 40% are women) in 15districts that received Capacity Development (CD) measures, confirm on the basis of concrete work examples that their knowledge for better implementation of the SP programmes has increased considerably .3.1 In 6districts, three relevant technical officers each quote two examples of the concrete application of a first version of a gender sensitive Project Implementation Manual (PIM) for the social support programmes. 3.2 In 6districts, district development plans based on Village Action Plans, which have been developed with the piloted dynamic electronic district planning tool, are available. 4.1 In 11districts, two sub-systems of the comprehensive MNSSP II data management framework (with disaggregated data on gender, age and disability) linked to the UBR are applied (e.g. MIS of the different social support programmes, GIS planning tools). 4.2 In 6 districts, 2 nationally developed harmonized mechanisms for the implementation of PWP and SCTP are	Community strategic plans reflect a participatory process and provides a coherent framework for all development and engagement efforts in the communities living around the AP protected areas. These plans will address human wildlife conflict, sustainable livelihoods, environmental and climate resiliency; the human resources and partnerships needed to carry them out and a way of measuring progress over time # of partnerships in place to help implement agreed community plans (e.g. health, SRHR, primary, secondary and tertiary education, livelihoods, climate), disaggregated by technical specialism	

			applied in each district, e.g. flexible payment (including e-payments) and complaint mechanisms. **Output 5:** Social protection programmes are better linked to resilience measures. 5.1 In 4 districts, a total of 12 VAPs include watershed activities as climate adaptation measures with a clear division between voluntary community work and work conducted and remunerated through the PWP. 5.2 2 instruments or guidelines to implementgraduation pathways (e.g. data management instruments and guidelines for governance committees) were developed by MFEPD.		
Output Indicator 4.3					
Number of shock-responsive features of key social protection programmes put in place within the Malawi social protection programme (preparedness)	Anticipatory Transformation	Number of shock-responsive features of key social protection programmes put in place within the Malawi social protection programme (preparedness)			
Assumptions					
• Combined efforts of partners on district capacity strengthening will have measurable effects • Coordination of PROSPER partners will enable coordination across all actors and empower districts to gain greater capacity for integrated coordination • Combined efforts of BRACC partners on district capacity strengthening will have measurable effects • Shock-responsive social protection will have demonstrable positive outcomes from the 2019 season that will encourage systems investment in subsequent years		Indicators 4.1 and 4.2 1. The combined efforts of partners on district capacity strengthening will have measurable effects 2. The coordination of PROSPER partners will enable coordination across all actors and empower districts to gain greater capacity for integrated coordination Indicator 4.3 1. The combined efforts of BRACC partners on district capacity strengthening will have measurable effects 2. Shock-responsive social protection will have demonstrable positive outcomes from the 2019 season that will encourage systems investment in subsequent years	Donors keep funding social protection programmes within MNSSP II.Funding for social protection programmes is available on time at central and district level. The Public Works Programme with the focus on watershed management continues. Line Ministries and donors continue participating in the improvement of coordination and harmonization in the area of social protection .Filling of empty posts of officers at district level will take place as communicated by the Ministry of Local Government and Rural Development.	

		Government as well as relevant donors continue prioritizing and supporting the introduction of e-payments as announced. MFEPD und relevant line ministries provide guidance to the districts regarding the implementation of the MNSSP II and react according to their feedback. Staff fluctuation within the division Poverty Reduction and Social Protection (PRSP) remains limited so that continuity of activities and direction of the division is ensured.		

OUTPUT 5: A strengthened and more shock-sensitive social protection system

Output Indicator 5.1	**Resilience Capacity**	**PROSPER (C 1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
No districts where 50% of SCTP and PWP beneficiary households received their transfers through e-payments	Absorptive		In 9districts 50% of Social Cash Transfer (SCT) and Public Works (PW) beneficiary households received their transfers through e-payments.		
Output Indicator 5.2					
No districts where 70% of the total complaints submitted have been closed according to the guidelines.	Absorptive		In 5districts 70% of the total submitted complaints regarding the social protection programmes were closed according to the guidelines.		
Output Indicator 5.3					
No. of additional social protection beneficiary households (out of which at least 55 % are female-headed households) which are purposively linked to complementary interventions (e.g. livelihood projects and nutrition-sensitive interventions) through tools developed by the programme.	Absorptive Adaptive		Tools are in place to enable an additional 10,000 social protection beneficiary households (out of which at least 55% are female-headed households) to be purposively linked to complementary interventions (e.g. livelihood projects and nutrition-sensitive interventions).		
Output Indicator 5.4					
No of micro–watersheds where watershed rehabilitation activities have been implemented by communities as part of Public Works activities and according to the implementation plan, e.g. Village	Absorptive		Community ownership of community assets created under public works is enhanced. 24 micro-watersheds in 8 districts, measured through watershed rehabilitation activities being implemented by communities according to implementation plans (e.g. Village Action Plans, VAPs) in addition to the Public Works activities.		

Action Plan (VAP).					
Assumptions					
• Existing strong political will to reduce extreme poverty • Funding for social protection programmes is available on time at central and district level. • Public Works with the focus on watershed management continues. • Line Ministries and donors remain interested in improving coordination and harmonization in the area of social protection.		Continuing strong political will to reduce extreme poverty Relative macroeconomic stability Trained district employeesand extension workers are being supported in implementing the acquired knowledge at their workplace .VAPs and DDPs will be renewed in a relevant number of districts within the project˙stimeframe and districts will manage to source the required funding.Local leadership and community members understandthe relevance ofwatershed management and actively participate in rehabilitation measures Electricity and internet is overall reliable in the districts wheretheMIS isused.		

OUTPUT 6: Forest deforestation and degradation is reduced, and forest dependent communities in targeted areas have more sustainable livelihoods

Output Indicator 6.1	**Resilience Capacity**	**PROSPER (C1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
No of people with livelihood co-benefits from improved forest management	Adaptive				P13 Number of people receiving livelihood co-benefits (monetary or nonmonetary) associated with implementation of USG sustainable landscape activities (EG 13-5, Outcome)
Output Indicator 6.2					
No hectares of degraded landscapes under improved management	Absorptive				P3 Number of hectares of forested land in targeted areas showing reduced deforestation based on the GoM deforestation estimation (Impact) P11 Number of hectares of degraded landscapes under improved natural resources management as a result of USG assistance (Outcome)
Output Indicator 6.3					
Tons of sustainable charcoal produced	Adaptive				P10 Number of tons of sustainable charcoal or alternative biomass energy produced *(Outcome)*
Output Indicator 6.4					
Amount of private sector finance leveraged for alternative energy options and efficient cooking technologies	Adaptive				P21 Amount of investment mobilized (in USD) for sustainable landscapes as supported by USG assistance (EG 13-4, Outcome)
Assumptions					
• Natural resource-based enterprises can be identified and create sufficient incentives for improved forest management • Co-management agreements can be agreed between private sector, communities and					

local authorities in targeted landscapes				

OUTPUT 7: More effective, coordinated and targeted, Government and donor investments

Output Indicator 7.1	**Resilience Capacity**	**PROSPER (C 1&2)**	**GIZ (C3)**	**AP (C4)**	**MCHF (C4)**
No. of politically responsive technical assistance workstreams developed and under active implementation using adaptive management principles	N/A (process)				
Output Indicator 7.2					
# of days of technical assistance provided / average fee rate per day in £	N/A (process)				
Output Indicator 7.3					
# of communications/evidence products generated by programme partners, including a publicly accessible data/document store that can be handed over to GoM	N/A (process)				
Assumptions					
• Opportunities for TA are identified; • Sufficient senior level support from FCDO and UK Diplomatic Representation is available to shape influential workstreams; • There is enough political feedback and flexibility in contracting to enable the facility to be responsive to the most relevant opportunities.					

PROSPER Theory of Change Narrative

The BRACC Programme ToC posits that the five Components implemented under BRACC will ultimately lead to a reduction in extreme poverty and an end to the recurrent cycle of crises and humanitarian assistance in Malawi, which are expected to increase and intensify in the context of changing climate risk.

These five Components were included in BRACC to address not only the barriers to resilience identified at the level of households and communities, but also to create sustained, transformative changes in the key systems that support community and household resilience both at the current time and in the context of changing future climate risk. These systems include market systems, government systems, and environmental resources. Knowledge management is also seen as a critical part of this process, as it facilitates learning and the improvement of policies and programmes across all Components.

PROSPER implements activities under the BRACC programme through Components 1 and 2.

The problem that we aim to address through Components 1 and 2 is the persistent poverty that makes people in Malawi particularly vulnerable to recurrent shocks and stresses [Problem statement]. The impact we hope to achieve, therefore, is to reduce extreme poverty in such a way that resilience is built to the recurrent cycle of crises and humanitarian assistance that otherwise run the risk of persisting and increasing in the context of changing climate risk. [Impact]

Within the 5 years of the programme we believe we can achieve the following change:

Strengthened resilience of the targeted 200,000 poor and vulnerable households (around 900,000 people) to withstand current and future weather and climate related shocks and stresses [Outcome]

The programme interventions are designed to increase the adaptive, absorptive and anticipatory capacities of targeted households, and contribute to transformative systems strengthening. [Intermediary Outcomes]

Delivering the components together is expected to result in improved resilience capacities, and reduced risk of shocks, at the household and community level, including: 1) Households being able to accumulate assets, access more diverse income streams, and improve their capacity to adapt to long-term climate changes [Outputs 1 and 2]; 2) reduced exposure of households and communities to drought and floods because natural resources are managed sustainably [Output 3]; and 3) households, communities and districts being better prepared for shocks and faster and better targeted responses when needed [Output 3 and 4].

PROSPER Output Areas

Output 1: Intensified and diversified agricultural production and improved nutrition for targeted vulnerable communities.

Output 2: Enhanced and inclusive access to the productive resources necessary to develop increased, secure and predictable incomes.

Output 3: Reduced vulnerability and exposure of households and communities to risk.

Output 4: Increased capacity of national, sub-national and non-state actors to plan, coordinate and monitor resilience programming, including shock-responsive social protection.

At the level of larger systems, these interventions are expected to result in:

- More efficient markets that facilitate access to inputs, technologies, information and output markets in a manner that is more inclusive and more conducive to resilience-enhancing investments [Output 2].
- Shock-sensitive social protection programmes that can better support the most vulnerable, chronically poor households, and can scale up to protect others during lean season or in the aftermath of a shock [Output 4];
- Strengthened and improved ecosystems working alongside strengthened and improved DRR planning and early warning systems so that households, communities and districts are better able to anticipate and cope with disasters [Output 3];
- Policy change: Policy that is informed by current and future risk to support the Malawian government to engage actors with what resilience strengthening is needed, thereby supporting the shifts in context necessary to bring about adaptation and resilience to climate change [Output 1-4].
- Strengthened government, community and private extension systems to mediate access to information, improving knowledge and directly supporting enhanced access to productive resources and changes in practices [Output 1].

- Strengthened and improved financial systems, mediating access to financial services including credit and insurance [Output 2].
- Strengthened disaster risk reduction and response mechanisms to disasters and more coordinated programming to protect against shocks and stresses [Output 4].

Primarily through Component 1, we target households and communities with: 1) Interventions that promote more sustainable and climate smart agriculture and less-weather-dependent livelihoods; 2) strengthened linkages to private sector partners and market systems; business and skills training; and 3) interventions that transfer assets and promote cash savings and access to loans (e.g. Village Savings and Loans Associations, VSLAs) and other financial services, such as micro-insurance.

Household-level interventions are designed to target households in different wealth categories in different ways. The PROSPER ToC mirrors the NRS in assuming that households at different wealth levels have different resilience capacities and different needs, and that interventions will be most effective if targeted to these different categories. For example, the poorest households may need consumption support to ensure they have sufficient absorptive capacity to maintain food security in the face of shocks such as drought that affect farm productivity, while better-off households may have marginally higher food security, and might benefit more from interventions that build their adaptive capacity through measures such as diversifying into new crops or livelihoods.

The success of these household and community interventions is closely inter-related with complementary investments in: land, water and natural resources management; disaster risk reduction (DRR) and Early Warning Systems (EWS); strengthened community mobilisation and local governance structures, such as Village Civil Protection Committees; and business initiatives and partnerships which help develop a vibrant private sector that is better able to engage productive farmers. These interventions are designed to transform the systems that affect resilience in Malawi, giving households and communities better access to tools and resources such as information, new technologies, and access to markets to enable them to sustain and improve livelihoods even in the context of changing climate risk.

Government social safety net systems are also an important component at the household level, ensuring that the most vulnerable households are protected through Component 2 with short term, scaled up assistance when needed to prevent them resorting to negative coping strategies and to protect gains made under Component 1.

The PROSPER theory of change is that by implementing these activities, in combination and appropriately-sequenced, layered and linked, then this will enable individuals, households and communities to build their capacity to anticipate, absorb, and adapt to climate shocks. This will contribute to households graduating out pf extreme poverty. By layering and sequencing complementary interventions within spatially defined areas and across a community with tailored packages for different wealth categories, PROSPER will accelerate the transition to breaking the cycle of crises in the most vulnerable areas of Malawi (transformation) and building effective resilience and adaptation to climate change, and facilitate graduation of households between wealth categories. The programme will deliver impact by scaling up adoption of a range of multi-sectoral interventions targeted to different types of poor and vulnerable households and communities, including through strengthening shock sensitive social protection and early warning systems, building and safeguarding of productive assets and natural resources, reducing exposure to risk, and stimulating diversification and uptake of economic opportunities that generate household income.

All interventions aim to support the participation of women, youth and other marginalised groups. In designing different interventions for households of different wealth levels, it is recognised that different groups may have different pathways to building resilience within the larger theory of change, and there may be different risks to success with different groups. For example, female-headed households may face different or more severe constraints than male-headed households, such as less availability of household labour.

Success is dependent upon a series of assumptions:

A1. Improved food security, income, targeting and delivery of social protection and policy coherence results in strengthened resilience and reduced humanitarian assistance

- Resilience interventions are adopted by programme beneficiaries and result in their ability to retain assets,

increase crop production and run sustainable businesses;
    - Increased investments in agriculture and NR management results in increased food production and income earning opportunities,
    - VSLA and MFI lead to assets accumulation,
    - Market system barriers for key food crops are mitigated,
    - Community level DRR and catchment management reduces flood and drought risk
- Households find the available climate and weather information accessible, timely and relevant for their production decisions;
- Households have the knowledge/labour/capital requirements to implement these decisions;
- Humanitarian response decisions are not unduly influenced by political priorities obscuring programme impacts;
- BRACC represents a cost-effective means of obtaining results around resilience-building/adaptation;
- GOM is able to incorporate resilience and climate change adaptation into its decision-making (at multiple levels/scales);
    - Relevant government actors and change agents are willing to adopt resilience strengthening and adaptation strategies having seen successful pilot outcomes (other barriers, e.g. political, institutional, do not prevent uptake and delivery of proven approaches);
- Communities believe in and want to receive interventions targeted to different wealth groups;
- The interventions being brought to the communities are those that will increase their resilience; and
- Uneven resourcing across PROSPER communities will still result in expected outcomes.

A2. Climate and economic shocks do not go beyond the country's capacity to cope
- The operating environment is supportive enough to allow interventions to impact on local capacity;
- Improving access to climate and weather information, including early warning systems, strengthens resilience. Access to climate change information leads to changes in attitude and practice. Climate information will help farmers make decisions that increase resilience to shocks and stresses;
- Improved EWS and community-level disaster risk reduction will reduce flood and drought risk and enable communities to respond better in times of crises; and
- Increased district capacity to oversee resilience programmes will result in improved systems for resilience strengthening among government stakeholders. Progress is not impeded by staff turnover (e.g., at district level)

A3. Increased investment in basic services, including health and education
- Improving basic services delivery in different sectors strengthens household resilience.

A4. Conducive agriculture and economic reforms for growth
- Improving access to markets (physical/regulatory systems/pricing information etc.) for small holders and other producers strengthens resilience to climate extremes and disasters.

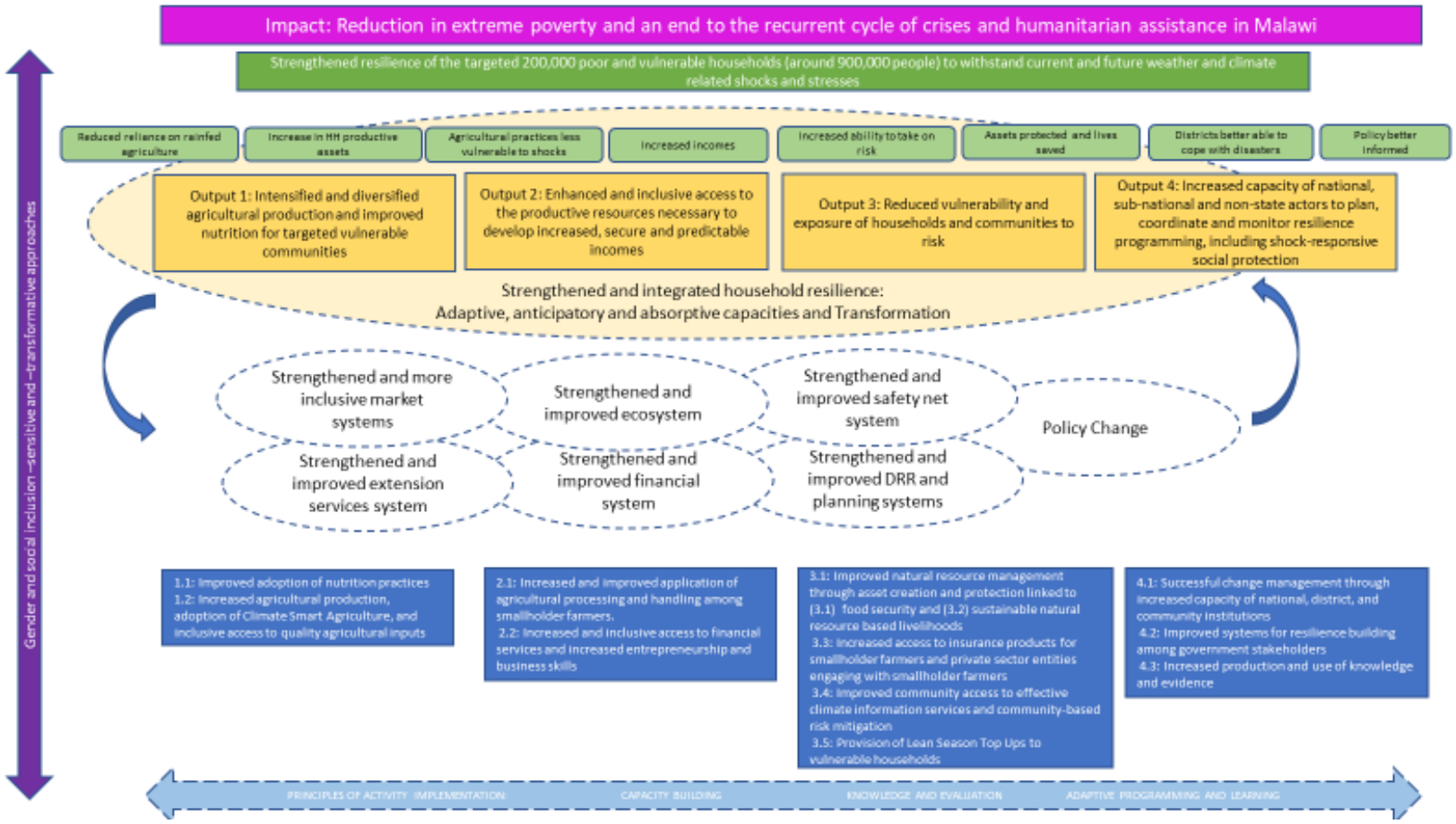
A5. Social protections systems better able to meet the needs of chronic poor
- Strengthened political leadership for resilience, climate change adaptation and social protection;
    - Government has the commitment and coordination capacity to link resilience and social support programmes
    - Other actors committed to SRSP
- Appropriate safety nets, including cash transfers, will reduce negative coping strategies in times of crisis; and
- New ways of providing assistance via social protection will increase predictability of transfers.

Agents of Change

To achieve the programme aims we need to deliver well-targeted packages of shock-responsive, resilience-building interventions at household and community level and work with and through recognised agents of change within key systems in order to identify and leverage positive disruptions. [Approach]

In order to achieve this, we will need to work closely with the following [Change Agents]:
- Government agencies, including: DoDMA, Ministry of Agriculture, Irrigation and Water Development, Ministry of Health, EP&D, Local Development, Industry and Trade , DCCMS, EAD.
- Local community based/civil society groups, including: Village Civil Protection Committees
- Local leaders – Tas, GVHs, VHs, VDC, ADC
- District Commissioners and District sector staff
- Private sector actors, including: agri-input companies, processors, traders, ARET agro-dealers, GAP providers
- Development partners, including: FCDO, IrishAid, USAID, World Bank, GIZ, EU, other UN agencies

PROSPER Theory of Change Diagram



Appendix D Evaluation Matrix

OECD DAC Criteria	Learning Agenda Area/ BC	Evaluation Question and sub-Questions	Proposed Indicators/ areas of enquiry	IP M&E	MIRA	RCT	Process Eval	Quali: FGD	Quali: KII	Research/Other
Impact *Effectiveness Relevance*	Resilience	**EQ1. To what extent did the programme contribute to strengthening climate resilience/adaptive capacity to shocks, taking into account a changing climate, at the household, community and national levels?** ***In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups)***								
Impact	Resilience Beneficiary Targeting and Graduation	EQ 1a. What difference has the programme made to the climate resilience and poverty reduction of participants at the individual/household level? For whom, Why? How? In what contexts? [BC5; BC6] • *Has the programme contributed to intensified and diversified agricultural production and improved nutrition/ food security/dietary diversity for targeted vulnerable households?* • *Has the programme contributed to improved poverty status for HH?* • *Have the targeted households achieved enhanced and inclusive access to markets and the productive resources necessary to develop increased secure and predictable incomes?* • *What are the impacts of social protection (shock- sensitive social protection mechanisms and social protection within the PROSPER graduation approach and the crisis-modifier) on individual and household level resilience, food and nutrition security and poverty reduction?* • *What climate resilience behavioural changes has the programme contributed toward at the household participant level? [Behaviour change] e.g:* o *Reduced negative coping strategies?*	Impact estimates of assets; incomes, food security derived from comparing beneficiaries with RCT control group non-beneficiaries Open questions about changes in intra-household dynamics, environmental management, household health. Analysis of intermediary outcomes related to programme interventions, in relation to resilience definitions and criteria, for example: - Volume of HH savings (absorptive) - Adoption of diverse crop types / new agricultural practices / new livelihoods activities (adaptive) - Use of early warning/forecasts (anticipatory) - Actual investments / plan to invest in less-weather-dependent livelihoods (transformative) Incidence of shocks and stresses and perceptions of risk & resilience/ actual strategies employed Sub-group analysis in relation to above indicators for female headed households, different ages of household heads, disabled household heads, the three target groups, location.	X PROSPER Annual Survey/Resilience Index IP M&E data X X Kadale mkt and initiative impact assessments PROSPER Annual Survey/Resilience Index IP M&E data EmA-FSS (FAO) Annual Survey	X	X X X		X X including realist-style questioning about select CMOs X X		GESI research Research Theme 3: Human capacity, livelihoods and social protection

		o *Improved asset accumulation* • *What were the anticipated and unanticipated changes/outcomes at the household level?* • *To what extent has a combination of support (transfers and livelihood components) improved Food Security / Assets / Income / Poverty Status / Coping Strategies?*	What (combination of activities have supported programme contribution to strengthened resilience? *-Transfers? Participation in lead farmer / FFS activities? Participation in Cluster Care Groups? Use of climate information?*	X X Annual Survey	X	X	X QBFI	X	X	
Impact	Behaviour Change	EQ 1b. What is the programme's contribution to improved climate resilience at the community and local government level? • *Have the catchment management activities reduced exposure to floods and droughts? [BC7]* • *Has the programme increased the capacity of local authorities, communities and individuals prepare for and respond to shocks? [BC9]* • *Have programme activities reduced deforestation and degradation, and do forest dependent communities have more sustainable livelihoods?* • *What climate resilience behavioural changes has the programme contributed toward at the community programme participant level? [Behaviour change]* • *What were the anticipated and unanticipated changes/outcomes at the community level?*	Incidence of shocks and stresses and perceptions of risk & resilience/ actual strategies employed Open questions about capacities in relation to preparing for and responding to shocks Assessment of EWS etc Role of private sector What elements of programme design and the incentives for energy switching are proving effective and why? Can they be replicated in other parts of Malawi? What seems to be not working well, or are creating negative unintended consequences, and what can be done differently to improve outcomes?	X IP annual surveys/ MIS data ARC-D community resilience measurement (GOAL) EmA-FSS (FAO) MCHF	X		X QBFI interviews with programme implementers	X X including realist-style questioning about select CMOs	X X X	Policy and advocacy document review Community Survey – midline and endline Mapping of actors and associated behaviour/ desired behaviour change? Research Theme 4: Catchment protection and management
Impact	Resilience; Behaviour Change	EQ 1c. What is the programme's contribution to improved climate resilience at the national level? • *Are government and donor investments in resilience and adaptation activities more effective, coordinated and targeted?* • *Is the national social protection system more shock responsive as a result of the programme? [BC8]*	Potential qualitative assessment of policy process using *Contribution Tracing*						X Interviews with programme implementers and key informants	Policy and advocacy document review Mapping of actors and associated behaviour/ desired behaviour change?

		• *What climate resilience behavioural changes has the programme contributed toward at the national programme participant level?* • *What were the anticipated and unanticipated changes/outcomes at the national level?*								
Impact	Resilience Beneficiary Targeting and Graduation	EQ1 d. Has the programme (contributed to) reduced the need for humanitarian assistance? *In which locations/ contexts? How? Why? For whom? [BC2]*	Drawing from the findings above (participant impacts) and additional survey and qualitative interview questions on need for humanitarian assistance. Sub-group analysis for female headed households, different ages of household heads, disabled household heads, the three target groups, location.	X M&E Output Data		X	X QBFI	X focused on beneficiaries of humanitarian response	X Key informant interviews with programme staff, experts and district stakeholders	X Additional survey data focused on beneficiaries of humanitarian response HH Interviews GESI research
Impact *Effectiveness Relevance*	Resilience Beneficiary Targeting and Graduation	EQ1 e. Which combinations of BRACC interventions are contributing most to building (food security and) resilience? *In which locations/ contexts? For whom?* [impact effectiveness, relevance] • *How effectives has the sequencing, layering and linking of interventions been in supporting participants to adopt a range of multi-sectoral interventions and pulling households into more productive markets?* • *What contribution has the stratified approach to targeting three identifiable groups ('hanging in', 'stepping up', and 'stepping out') with different cohesive packages of interventions, tailored to their needs and characteristics, made to strengthening resilience?*	Assessment of the outcomes linked to different interventions using a contribution analysis approach linked with findings from the RCT. Sub-group analysis for assessing outcomes by participant type and context.	X		X	X QBFI	X	X District Stakeholder and Staff interviews	community survey
Relevance	Resilience	***EQ2. To what extent are the theory of change and intervention objectives of the programme responding to the current needs of the programme participants and stakeholders (household, community and national levels) and continue to do so as circumstances change? [BC3]***								
Relevance	Resilience	EQ2 a Did results delivered align with the results / changes anticipated in the Theory of	Assessment of context changes (including participant needs) and the	X		X	X	X	X	Literature reviews

		Change **in relation to building and strengthening resilience and climate change adaptation**? How/in what ways? If not, in what ways/ why not? In which locations/ contexts? For whom (men, women, younger people, older people, disabled people, 3 target groups). • *Are the core activities of the project consistent with the intended results chain?*	validity of the programme assumptions and ToC. Assess participation of the programme target groups in the programme using IP reporting data. Level of time and resource invested in targeting interventions and potential for replication/usage.				Level of time and resource invested in targeting interventions and potential for replication/ usage QBFI	Programme participants and staff	Experts and other stakeholders	TOC review
		EQ2 b To what extent do the objectives of the programme respond to the needs of programme participants (household to national levels) given the current context? • *What is the impact/ contribution of PROSPER on HH perceptions of wellbeing and resilience?* • *What has happened to HH in Mangochi that are no longer receiving FFA cash transfers (post 3rd year)?*	Assessment of context changes (including participant needs) How different people conceptualise 'resilience', what it means to them, who within their self-identified group they think is resilient? Why? What would be required for them to become more resilient? Sub-group analysis for female headed households, different ages of household heads, disabled household heads, the three target groups/ wealth groups, location, *Participation in various components*	X Post-distribution monitoring			X QBFI	X	X	HH Interviews GESI research Research Theme 2: Risk reduction, flood control, early warning and response systems
Coherence	Programme Design Resilience	***EQ3. How complementary are the programme interventions and how well do they fit with the interventions of other actors in the Malawian context?***								
Coherence	Programme Design	*EQ3 a How well do the programme's interventions fit together, create synergies and coherence (internal coherence)?* • *To what extent do projects within BRACC learn from and influence each other (internal coherence)?*	Implementer experiences and perceptions Other stakeholder perceptions				X		X IP + Stakeholder interviews	
Coherence	Programme Design	*EQ3 b. To what extent does BRACC complement other programmes implemented by other development partners (external coherence)?*	Complementarity between BRACC activities and those of other programmes Stakeholder perceptions of opportunities for synergies				X	X Programme staff, policy actors and staff from other government and donor programmes	X Programme staff, policy actors and staff from other governmen t and	VfM data Literature review

		• *Was the evidence generated relevant to other programmes and policies [SPECIFY] in Malawi and elsewhere? [BC4]* • *Has the programme enhanced coordination with other donor and Government programmes? [VfM] [BC10]*							donor programmes	
Effectiveness (Process Evaluation)	Programme Design	**EQ 4. To what extent has the programme achieved, or is expected to achieve, its objectives, and its results? How do the findings differ by participant type and location?**								
Effectiveness (Process Evaluation)	Programme Design	EQ 4 a How effective is the programme's implementation design and the execution of it? [effectiveness; process]: • *Has this programme been successful in changing ways of working among Consortium partners?* • *How can an external hub add most value to a complex programme?* • *Targeting – Is PROSPER targeting the right people?* *-Inclusion? -Exclusion?* *-Community perception of targeting via wealth ranking* *-Community perception of packaging assistance according to wealth ranking* *- Awareness of targeting processes?*	Implementer experiences and perceptions Other stakeholder perceptions Sub-group analysis for female headed households, different ages of household heads, disabled household heads, the three target groups/ wealth groups, location, women, men, youth, elderly, marginalise groups.	X Lean Season Response After action review (UNDP)			X QBFI	X Programme staff, policy actors and staff from other government and donor programmes Community FGDs	X Programme staff, policy actors and staff from other government and donor programmes.	Review of programme design-related documentation, relevant reports and meeting notes
Effectiveness	Resilience; Beneficiary Targeting	EQ 4 b *To what extent are the objectives likely to be achieved? How, why, for whom, in what contexts? [MTR question]* • *How effective has the programme been in delivering its planned outputs?* • *Did the programme learn from experience and adjust its level of investment to focus on the most successful activities?*	Level of achievement of programme logframe targets Sub-group analysis for female headed households, different ages of household heads, disabled household heads, the three target groups/ wealth groups, location, women, men, youth, elderly, marginalise groups.	X			X QBFI			VfM analysis
Efficiency	Programme Design	**EQ 5. Is the *project being implemented in the most efficient way compared to alternatives?***								

Efficiency	Programme Design Beneficiary Targeting	• *What unanticipated, positive or negative, enablers or constraints has the project encountered?* • *What has been changed or adapted in terms of intervention design and why?* • *Are activities cost-efficient?* • *Are objectives being achieved on time?* • *What is the VfM of combining this number of partners under the same programme?* • *What is the VfM/effectiveness of combining interventions for beneficiaries and having interventions targeting different scales?*	Theory of change analysis Level of achievement of programme logframe targets	X UNICEF – cost effective approaches to SP delivery CBA/ eval of FFA (WFP/ Itad)			X QBFI		X District interviews Staff interviews	Document review VfM analysis
Sustainability	Systems Change	**EQ 6. To what extent will the programme have transformational impact and bring about systems change?**								
Sustainability	Systems Change	EQ 6 a. What evidence is there that the interventions and the mechanisms that support them have the potential to deliver 'amplified results' and/or 'transformational impact'? How, why, for whom, in what contexts? [sustainability] • *To what extent are women and men in the different target groups (likely to be) resilient in the face of future climate change and shocks when no further tangible interventions are being provided? [BC13]* • *To what extent has the programme supported multiple graduation pathways out of poverty and hunger?* • *To what extent has the programme been locally owned by stakeholders, including beneficiary communities?*	Assessment of farm-level costs and benefits Analysis of trade-offs between different activities Perception by beneficiaries about the feasibility of continuing new practices Level of support from national policy and from district investment decisions to the interventions/ national safety net system Level of resources available without programme resources Level of capacity outside of programme of key actors Analysis of policy development and budget allocation that support and advance progress toward national safety net systems that strengthen resilience Political commitment and funding support for on-going resilience operations:	X		X	X QBFI	X	X staff interviews; district interviews; national stakeholder interviews	Document review: policy, development plans, national' district budget allocations household survey? PEA?

		• *To what extent has the programme increased political commitment and contributions to national safety nets systems? [BC14]*	• Processes to raise long-term finance for resilience to ensure predictable funding • Design of follow-on resilience projects to further develop resilience work • Incorporation of resilience in long term national targets/development plans							
Sustainability	*Systems Change*	EQ 6 b. Is the programme achieving systems change? How/why? • *What are the likely barriers to scale-up of the packages of interventions identified as building resilience for the three target groups?* • *To what extent has the programme contributed to changing gender roles and relations and empowerment of socially marginalised groups in ways that strengthen resilience capacities in the face of climate change?* • *What strategies are most effective to enhance long-term sustainability of the programme gains for the three target groups?* • *What can we learn from BRACC about how resilience be achieved through policy in Malawi (taking into account political economy)?*	Analysis of policy development and budget allocation that support and advance progress toward transformational outcomes over time Progress in overcoming barriers to climate resilience practices eg • Integration of resilience considerations into (cross)- sector planning processes • Enhanced institutional/ community capacity for adaptation and resilience • Stakeholder and community-led adaptation processes, plans underway Gender norms: attitude data, changing intentions, measures of gendered outcomes or practices, perceptions of prevailing norms Evidence for system change outcomes that influence decisions/behaviours, e.g. changes in: Planning decisions and Outcomes; Uptake of incentives; Changes in budgetary allocations; Increased awareness levels; Changes in consumption patterns; Improved affordability; Increased technology availability. Indicators include: • Increased budget allocations directed towards climate resilient initiatives • Climate information routinely applied in strategic long-term planning • Enhanced understanding drives new stakeholder behaviours/ decisions	X PROSPER Markets		X		X	X staff interviews; district interviews; national stakeholder interview	PEA Policy analysis, Document review: Budgets Planning etc household survey? Community Survey GESI research

			• Resilience plans and processes are implemented and effective							

Appendix E Use and Influence Plan

The BRACC programme was designed to contribute to the implementation of the National Resilience Strategy, and is in alignment with a number of other policies, including the National Climate Change Management Policy, Disaster Risk Management Policy and Malawi National Social Support Programme II (as outlined in section 2.1 – Malawi context). It has also been implemented in close cooperation with government, particularly at district level.

Lessons and evidence from the evaluation of the programme provides insights into what works in resilience-building and adaptation to climate change, and how these can be supported. In particular these insights include:

- Delivery and impacts of a range of different resilience building and adaptation interventions
- The effects of layering and linking interventions, including in terms of value for money
- Targeting different wealth categories
- How to measure resilience
- How social constructions of gender roles affect resilience and adaptation
- How a crisis modifier function can be supported
- How donor-funded programmes supporting resilience and adaptation can be designed

As such, there are varied audiences for dissemination of findings. These can be divided into internal (within Malawi) and external (outside of Malawi).

Audiences within Malawi include:

- development professionals working on climate resilient policy and practice
    - domestic and international non-governmental organisations (NGOs/iNGOs) and UN agencies who are concerned with implementing resilience-building and adaptation activities. In the immediate term, as well as the continuing UN consortium of PROSPER, this includes Titukalane.
    - funders who are interested in how best to support resilience-building and adaptation
- Government staff
    - National level policy-makers and technical staff concerned with design and implementation of resilience building and adaptation policy
    - District level technical staff involved in implementing resilience building and adaptation policy

Audiences outside of Malawi include:

- development professionals, civil society networks and organisations and applied researchers who are concerned with adaptation and resilience policy and practice and interested to learn from Malawian experience.

Although the early changes to the BRACC programme meant that it could not be implemented fully, the BRACC Hub had developed a knowledge management and communications strategy that highlighted the importance of presenting knowledge in languages and formats and via communication channels that are appropriate for the various constituencies that the programme aims to reach.

Given the diversity of insights and varied audiences, a range of written outputs of the evaluation process will be distilled. In addition the main evaluation report, briefing notes will be published on the at least following topics:

- resilience measurement
- programme design
- value for money of resilience building and adaptation
- specific interventions (insurance, livestock pass-on, access to finance, market resilience)

An active approach will be taken to communicating insights, with the recognition that development professionals and government staff are very busy. Where possible, opportunities will be taken to request agenda items on existing meetings. For example there is a joint national technical committee on climate change and disaster risk management that meets quarterly and aims to coordinate climate change and disaster risk activities taking place, so requesting an agenda item for the next meeting will be appropriate and will reach the broad multi-stakeholder membership. Another option is the UN Sustainable Development Goals Acceleration Technical Working Group. Similarly for donors, who are all variously involved in support resilience

building and adaptation activities and will be interested in both the impacts and the design, there is a Donor Coordination Committee on Environment, Resilience and Climate Change that meets regularly and will likely be happy to have a presentation.

If Covid conditions permit, a face-to-face dissemination workshop can be planned in Lilongwe targeting BRACC implementing partners (whose organisations are involved in other resilience building and adaptation activities), together with other NGOs and government technical staff from the Ministry of Forestry and Natural Resources (Environmental Affairs Department, Department of Climate Change and Meteorological Services), Department of Disaster Management Affairs, Ministry of Agriculture, Ministry of Gender, Community Development and Social Welfare, Ministry of Economic Planning and Development, and the National Planning Commission, which is in charge of medium- and long-term development planning. If this is not possible, an online meeting workshop will be arranged for NGOs, possibly under the auspices of the Civil Society Network on Climate Change to have broad reach. Whilst government staff will be invited to this workshop, recognising the constraints on their time the team will also offer to give bespoke presentations to each department/ministry, focusing on the findings that are of most relevance to them. Briefing notes and the report will be shared electronically and in print format.

Appendix F Impact Evaluation

See separate document (150+pages)

Appendix G Data collection tools and guides

G1. Survey/questionnaire – See separate document (150+pages)

G2. Semi-structured interview guide: protocol template and topic guides – See separate document (25 pages)

Appendix H Summary of interviewees

Summary of all interviews in qualitative evaluation:

Focus	Activity	District	Target number of interviews /FGDs	Actual number of interviews /FGDs	Actual number of respondents	Notes
Programme Outcomes (PROSPER, MCHF, AP) Spillover Effects	**District-level KII (SSI1)**	Phalombe Chikwawa Mangochi Balaka Nkhotakota	Up to 20	19	19	All respondents except 1 were male. Range of roles/offices represented
Programme design, Value for money, spillover effects, sustainability, crisis modifier	**Programme-level KII**	N/A	14	18	33	All but one of the PROSPER implementing partners, representatives of the lead organisations for other projects, FCDO and FGD with the hub
		Phalombe	6	8	8	

Programme Outcomes (PROSPER, MCHF, AP)	**Community-level KII**	Chikwawa Mangochi Balaka Nkhotakota				6 PROSPER KIIs. 1 African Parks KII. 1 MCHF KII
Insurance **Cash for inputs** **Livestock pass-on** **Access to finance**	**FGD**	Phalombe Chikwawa Mangochi Balaka	128	117	719	56% female, 44% male. 7% HI, 83% SU, 9% SO. Good spread across 4 focus areas
PROSPER Case Studies of Positive and Negative Deviance	**SSI3**	Phalombe Chikwawa Mangochi Balaka	48	37	37	61% female, 39% male. 52% positive, 48% negative. 43% FHH, 57% MHH. 28% HI, 43% SU, 26% SO
AP Case Studies of Positive and Negative deviance		Nkhotakota	12	9	9	
MCHF Case Studies of Positive and Negative deviance		1 or 2 PROSPER districts	12 or 24	0	0	No interviews as MCHF had not started implementing
Gender and intra-HH	**SSI2**	Phalombe Chikwawa Mangochi Balaka Nkhotakota	Maximum 60 HH	33	33	All female respondents. 58% FHH, 42% MHH. 42% younger, 58% older. 42% HI, 30% SU, 27% SO
TOTALS				**241**	**858**	

Key Informant Interviews:

IP Organisation	Position
FCDO	Resilience Advisor
FCDO	SRO
FCDO	Acting SRO
UNDP	
WFP	Consortium Coordinator
UNICEF	
FAO	IP
FAO	IP
FAO	IP
FAO	IP
Concern Worldwide	NGO Consortium Coordinator
United Purpose	Project Officer
GOAL	IP
GOAL	IP
CUMO	IP
CUMO	IP
CUMO	Financial officer
Kadale	PROSPER Markets lead

GIZ	IP
GIZ	IP
GIZ	IP
Tetratech-USAID	Chief of Party, MCHF
African Parks	IP
BRACC Hub team	Team Leader
BRACC Hub team	MEAL Lead
BRACC Hub team	Research Lead
BRACC Hub team	Programme Manager
DISTRICTS	
Concern	District
UN District Coordinators	District coordinators and NGO partners

Appendix I Sources and Strength of Evidence for Theory of Change Evaluation

Table X: Summary for Evidence for Assigned Results Ratings and Strength of Evidence Rates for Figure 6

Outcome	Rating	Evidence	Strength of Evidence	Strength of Evidence: Reasons for Less than Strong
Inclusive Access to Programs	Moderate success	**Annual Survey**: HI less likely to participate in many interventions, including broadly targeted interventions and interventions targeted to HI. Single-headed, female-headed, youth-headed, and elderly-headed households also participated at lower rates, but differences were mostly small, and mostly explained by their overrepresentation in HI. Impact Evaluation: Even for programmes not unique to PROSPER, PROSPER raised participation rates. There appears to have been some spillover or contamination, with control communities reporting participation in PROSPER activities. Impacts for female headed, youth headed and hanging-in households were positive for many interventions, indicating that the quality of access was good for these groups. Qualitative: Respondents describe different groups successfully participating in many interventions, including people who are disabled, women, and others. However, they also note that Hanging In and Stepping Out were less reached, and that some groups, such as poorer people, may face barriers participating in activities open to all such as VSLs.	***	

Improved Access to Agricultural Information	High Success	**Quantitiative**: Positive impact on upstream outcomes (extension participation) and downstream outcomes (adoption of better practices) suggest impact in this intermediate step, but not directly measured **Qualitative:** Many respondents report receiving training on Sasakawa planting and conservation agriculture practices. Good access to training and information is credited with contributing to the success of programmes like Cash for Inputs.	**	No direct quantitative measure assessed
Enhanced Access to Productive Resources	High Success	**Cash for Inputs Brief Quant Analysis**: Participants in Cash for Inputs were more diversified and more likely to try a new crop or variety. Impact Evaluation: Evidence of improved access and quality of inputs for both RCT and participator models; 10 percentage point increase. Positive impact on agricultural asset index. Increased access to PICS bags. **Qualitative:** Participants in Cash for Inputs and VSL groups credit these interventions with helping them to access inputs needed to invest in agriculture and non-ag business.	***	
Inclusive Access to Productive Resources	High Success	**Impact Evaluation:** Treatment more likely to say access to inputs improved; effect strongest for female headed households. Qualitative: Participants in Cash for Inputs describe mostly collaborative household decision-making around agricultural investments	**	Quant data on intrahousehold decision-making is limited because only one respondent participates
Improved Access to Climate Information	Moderate success	**Annual Survey**: Despite low participation rates in integrated climate services, 38% report having good and timely access to climate info, and half report using climate info to inform actions. **Impact Evaluation:** Participators in radio clubs and integrated climate services (12% and 1% respectively) saw impacts on increased access to climate info (40% difference treat-control), quality of info i.e. usable (46%), timing (45%) and climate info used (25%)	*	Quant only
Increased Uptake of Financial Products Supporting Resilience	Moderate success	**Annual Survey: U**ptake of insurance is very low. Impact Evaluation: Positive impact on making deposits, self-reported savings, sufficient income to make savings, and loans taken. Positive but small impact on insurance uptake. Qualitative: A large number of respondents report improved access to credit as a result of VSL activities. Insurance is described as having low uptake.	***	
Increased Investment in Resilience and Productive Assets	Mixed or unclear results	**Annual Survey**: 87% of households report investing in resilience in at least one way. **Impact Evaluation:** Mixed results: positive impact on investment in irrigation, livestock kraal building; no impact on investment in any resilience category, storage, or insurance **Qualitative:** Participants describe being able to afford hybrid seeds due to the programme, and investing in new types of inputs like pesticides to help reduce risks to crops. They also describe	**	Limited range of resilience investment assessed in quant; difficult to distinguish investment that responds to shock from investment building resilience

		improvements in dwellings, livestock, tools, land, transport, and household items, as well as investment in businesses.		
Adoption of Improved Agricultural Practices	Moderate success	**Annual Survey**: Only 3% of households adopted 6 or more CSA practices. Impact Evaluation: Small but significant impact on number of CSA practices adopted, no impact on share of households adopting 6 or more practices. Qualitative: Participants describe adopting, and having success with, modern practices such as Sasakawa planting and using manure (including from Livestock Pass-on) to supplement inorganic fertilizer. They describe these as highly likely to be sustainable, and producing spillover effects as other households see their success and copy the practices.	**	Quant data do not include some of the key practices mentioned in qual
Diversified Agricultural Production	Moderate success	**Cash for Inputs Brief Analysis**: Participants in Cash for Inputs had on average a higher number of crop types than people in PROSPER communities who did not participate, controlling for wealth group. Impact Evaluation: Small positive impacts as measured by the number of crop types grown, but diversification remained low (2.3 crops treat versus 2 for control). Impacts were highest for female headed households. No impact found on trying new crops or varieties. **Qualitative:** A number of respondents reported that the program helped them try new crops or varieties.	***	
Intensified Agricultural Production	Mixed or unclear results	**Annual Survey:** Large yield gaps remain between households in different wealth groups, and for female-headed households. Impact Evaluation: No impact found on yield of top four crops, even comparing participators and non-participators and adopters and non-adopters. Qualitative: A large number of respondents reported achieving higher yields as a result of accessing hybrid seeds and adopting better planting and farming practices.	***	
Increase in Household Productive Assets	High success	**Livestock Pass-On Brief Analysis: PROSPER h**ouseholds participating in livestock pass on had significantly more livestock than those who did not. Impact Evaluation: Participation in the livestock programme was associated with significant increase in Tropical Livestock Units. Significant increased in agricultural asset index, but not durable goods asset index. **Qualitative:** A large number of respondents describe improved assets through various	***	

		mechanisms, including directly receiving livestock and financing investment with increased income due to increased productivity		
Ag Practices Less Vulnerable to Shocks	Mixed or unclear results	**Impact Evaluation:** Among households exposed to drought, those participating in interventions or adopting practices saw no significant differences for most indicators, including reported shock impact, income, or food production. **Qualitative:** Households report adopting drought tolerant and early maturing varieties, and implementing watershed management activities such as building swales and planting trees. Despite this, many households also report that the impact of PROSPER programmes was limited due to shocks from drought or pests.	**	Not all shock types assessed in quant, impact may not be observable in absence of shock
Less Reliance on Rainfed Agriculture	High Success	**Annual Survey:** 27% of participants used irrgation in last year. Female headed households participated in irrigated farming at lower rates than male-headed households. Impact Evaluation: Treatment households were twice as likely to participate in an irrigation scheme as control households; positive impact on use of drip/solar technologies across all sub-groups. **Qualitative:** Some respondents describe beginning irrigation farming as a result of Cash for Inputs benefits being given for the winter farming season, as well as investments into non-farm businesses	***	
Diversification into non-Ag activities	High Success	**Annual Survey:** 12% of male-headed households had a non-ag business, versus 4% of female-headed households **Impact Evaluation:** VSL participation is associated with higher likelihood of having a non-ag business; the effect was strongest for female-headed households and poorer households. No impact on number of enterprises owned. Qualitative: Numerous respondents report that income from ag sales or sales of livestock have enabled them to start new businesses or invest in existing ones	***	
Reduced exposure to risk	Limited or no signs of success	**Impact Evaluation:** No impact on exposure to shocks. Qualitative: Respondents report high incidence of pests and droughts that negatively affected crops	***	

Reduced vulnerability to risk	Mixed or unclear results	**Annual Survey:** 36% of households have food expenditure<50% of total expenditure, only 12% report being able to build savings **Impact Evaluation:** Among households exposed to drought, those participating in interventions or adopting practices saw no significant differences for most indicators, including reported shock impact, income, food production, or coping strategies. They did have better outcomes for building savings, making deposits, and building assets, and small positive impact on Household Dietary Diversity Score. No evidence of improved erosion outcomes. Qualitative: Respondents report that participation in watershed management activities has improved soil fertility and moisture retention.	**	Not all shock types assessed in quant, impact may not be observable in absence of shock
Reduced Hunger	Mixed or unclear results	**Annual Survey:**22% of households had sufficent food over the past 12 months **Impact Evaluation:** Most households are still food insecure. No impact on food consumption score when comparing participants to non participants in control, but positive impact for adopters versus control non-adopters. Qualitative: Many respondents report better access to food, mostly through the mechanism of increased yields, but also through irrigated farming including backyard gardens, selling off livestock, and access to finance	**	Uncertainty regarding consistency between meaning of food security in quant and qual methods
Improved Nutrition	Mixed or unclear results	**Impact Evaluation:** Participants in treatment intervention had significantly better outcomes (1 additional food group), but represent a small share of program participants. Qualitative: Respondents report improved understanding of nutrition, and some better accesss to vegetables and diversified foods from irrigated farming and incomes	**	Qual nutrition data speak more to access and understanding than final nutrition outcomes
Increased Income	Moderate success	**Annual Survey:** 24% of PROSPER participants report increased sales for at least one crop **Impact Evaluation:** Positive impact on crop sales, non-food expenditure, and total expenditure. Qualitative: Many respondents report increased income due to increased crop sales, livestock sales, and VSL-financed activities; Hanging In respondents report receiving cash from watershed programmes	**	Total income not directly measured in quant
Assets protected and lives saved	Moderate success	**Qualitative**: Key informant interviews suggest that social protection system strengthening worked on its own to help align humanitarian and social protection response approaches such as strengthening the UBR to be used for targeting by both, and delivering vertical and horizontal expansion through the SCTP. The crisis modifier put funding in place for shock response to be delivered through social protection systems, lending credibility and creating incentives for system strengthening.	*	Qual only

Districts better able to cope with disasters	Not evaluated
Increased capacity of actors to coordinate and monitor resilience programmes	Not evaluated
Policy better informed	Not evaluated

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