

RESILIENCE RESULTS

BRACED FINAL EVALUATION

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Synthesis paper



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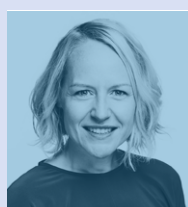
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Acronyms and abbreviations

ASP	Adaptive Social Protection
3As and T	Anticipatory, Absorptive and Adaptive Capacities and Transformation
ANICT	National Agency for Local Government Investment (Mali)
BCURE	Building Capacity to Use Research Evidence
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters
BRICS	Building Resilience in Chad and Sudan (BRACED project)
CIARE	Climate Information and Assets for Resilience in Ethiopia (BRACED project)
CLTS	Community-Led Total Sanitation
CMO	Context-Mechanism-Outcome Configuration
CWG	Community Working Group
DCF	Decentralising Climate Funds (BRACED project)
DFID	Department for International Development (UK)
DRR	Disaster Risk Reduction
EHAIA	Ethiopian Horticulture and Agricultural Investment Authority
EWS	Early Warning Systems
FE	Final Evaluation
FGD	Focus Group Discussion
FM	Fund Manager
ICMO	Intervention-Context-Mechanism-Outcome Configuration
IP	Implementing Partner
IRISS	Improving Resilience to Climate Change in South Sudan (BRACED project)
KII	Key Informant Interview
KM	Knowledge Manager
LAPA	Local Adaptation Plans for Action
MAR	Market Approaches to Resilience (BRACED project)
M&E	Monitoring and Evaluation

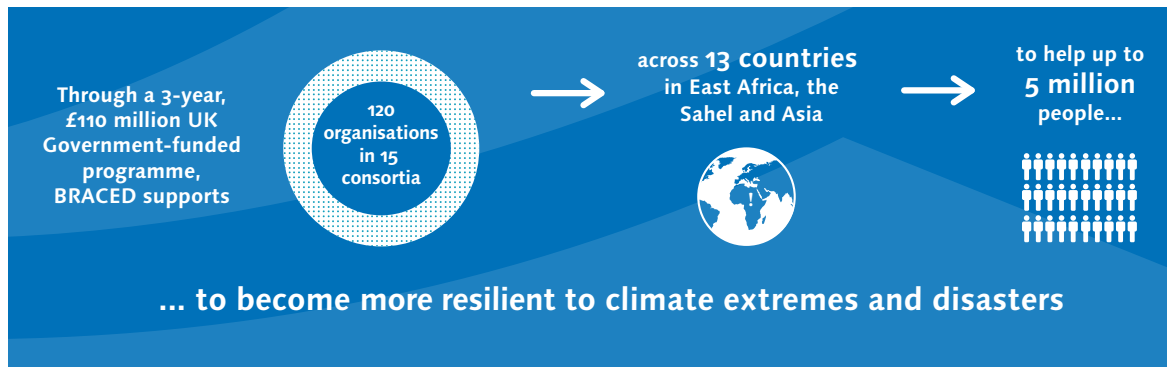
MTR	Mid-Term Review
NMA	National Meteorological Agency (Ethiopia)
PHASE	Providing Humanitarian Assistance for Sahel Emergencies
RIC4REC	Renforcement des Initiatives Communautaires pour la Résilience aux Extrêmes Climatiques (BRACED project)
SACCO	Savings and Credit Cooperative Organization
SUR1M	Scaling up Resilience to Climate Extremes for over 1 Million People (BRACED project)
ToC	Theory of Change
ToR	Terms of Reference
VSLA	Village Savings and Loan Associations
WASH	Water, Sanitation and Hygiene

EXECUTIVE SUMMARY

Introduction

This report presents a synthesis of project-level final evaluations, carried out after three years of implementation of the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) programme.

Building Resilience to Climate Extremes and Disasters



Using evidence provided by implementing partners, this report examines the following central synthesis evaluation question:

How, where, when and why do BRACED interventions work, and what can be learned/how can good practice be replicated?

By learning from projects about which approaches work and in what contexts, BRACED aims to influence policy making and development planning in national and local governments and regional and international initiatives.

The projects have implemented packages of activities working directly with individuals, households and communities as well as with local-level institutions, local and national governments, and in collaboration with the private sector. In combination, these packages of activities aimed to contribute towards achieving the overall outcome of improved resilience to climate-related extremes and disasters.

Project activities include: training (e.g. in the use of improved seeds, in climate-smart technology, health and nutrition); support for natural resource management; establishing and supporting EWS; water management and water and sanitation hygiene (WASH) activities; improving access to climate information; supporting access to financial services (savings and loans groups, microfinance and insurance). The resilience results sought by BRACED projects are strongly linked to the development outcomes that the projects have achieved. Resilience is also about the processes involved in realising those outcomes: for example, in bridging institutional 'gaps' or in changing underlying social norms and beliefs to make the intervention work, recognising resilience as an intermediate outcome.

We have supported implementing partners in using a realist 'lens' while collecting their final evaluation data and in their analysis to help us to answer the synthesis question.

In realist evaluation, context is understood as the most important influence on whether an intervention succeeds in activating a change process (often referred to as a 'mechanism') that will cause an outcome. Causation in realist evaluation therefore rests on understanding the influence of context on 'mechanisms', as well as the mechanisms themselves, and outcomes.

Outcomes: what the BRACED programme has achieved

The 15 projects that comprise BRACED are achieving outcomes for poor people that contribute to strengthened resilience and adaptation, with some interventions already supporting women and men in target areas to improve wellbeing in spite of shocks and stresses. Outcomes fall within four interconnected domains. An outcome in one domain (for instance, reliable access to water, and associated time saved) might be a precondition for another (such as women's participation in community-level decision making). The domains are:

- **Individual and household-level outcomes:** What difference has BRACED made for individuals and their families, and how has wellbeing increased in spite of shocks and stresses?
- **Institutional outcomes:** from local community to national level: How are people planning and acting differently as a result of BRACED?
- **Inclusive outcomes:** What change has BRACED created for women, and how have the projects promoted social inclusion?
- **Information outcomes:** How are people using climate information to anticipate risks and plan for long-term change?

BRACED projects report evidence of **a range of outcomes for individuals and households**, as well as building understanding of how and why projects have contributed to this change in different contexts. These outcomes fall into two groups.

The first group are the *result* of greater absorptive, adaptive or anticipatory capacities, but are also *intermediate outcomes* which create contextual conditions necessary for further progress toward resilience. They are:

- Increased and diversified income.
- Improved food security and dietary diversity.
- Improved access to water for food and agriculture.

The second group of outcomes are building blocks of the *pathway* toward increased resilience, in that they contribute to absorptive, adaptive and anticipatory capacities. They are important outcomes in themselves but also interact to contribute to the first group of outcomes listed above. They are:

- Improvements to agricultural systems and practices.
- Improvements to livestock systems and practices.
- Access to financial services, including credit, loans and insurance.

BRACED has contributed to a range of **institutional changes at local and national levels**. This includes: embedding climate risk within local planning; building and strengthening local organisations to implement resilience activities and respond to disasters; creating and facilitating agreements around land tenure and resource use to reduce conflict; as well as actions to influence national policy and build capacity to govern adaptation.

These institutional changes support the individual and household changes to which the BRACED projects have contributed. It is critical in creating a context necessary for building anticipatory, adaptive and absorptive capacities. It also creates potential for transformation, including creating impact at scale, and shifting power relationships to enable inclusive, risk-informed decision-making processes that involve women and disadvantaged and marginalised groups.

Addressing various forms of social inequality and exclusion is an implicit focus within the BRACED theory of change. **Inclusion** is a development outcome that both supports, and is supported by, resilience. The majority of projects have at least some focus on ensuring equitable benefits and ensuring that they reach vulnerable groups, but a smaller number have specific goals related to tackling the root causes of exclusion. The strongest evidence of change is centred around gender and women's empowerment. BRACED projects and their evaluations were largely marked by a lack of disaggregation by age, gender, disability and other forms of disadvantage and social exclusion. The BRACED final evaluations were notably blind to disability inclusion, with no projects mentioning deliberate action to promote inclusion for people with disabilities, although one IP (Myanmar Alliance) explicitly works with with people with disabilities.

BRACED projects demonstrated considerable achievement in brokering access of **climate information**, particularly short-term and seasonal forecasts. This is increasing anticipatory capacity: people are using the information to plan agricultural and livelihood activities and reduce losses from climate hazards.

The effectiveness of efforts in this area is underpinned by work that links different scales to address supply and demand for information. Importantly, projects have focused not only on technology and information products, but the institutions that shape how information is interpreted, communicated and used. This includes the relationship between scientific and traditional forecasting.

While the uptake of short-term and seasonal weather forecasts has been strong, more needs to be done to integrate longer-term climate projections into decision making and planning.

How and why change happens

The messages emerging from the BRACED project final evaluations about how and why change happens relate to providing the right kinds of incentives so that people respond to the project activities in positive ways. These incentives link directly to the contexts in which the projects are working: weak markets and institutions, high levels of poverty and low asset base, and low levels of trust in external intervention.

- In contexts where there are weak or non-existent market and institutional linkages, carrying out activities that help to strengthen linkages across local institutions and different activity areas can create incentives for people to participate – for example, by linking savings to potential income-generating activities, which in turn are helped to 'bear fruit' through support to improving market and other institutional linkages.
- This, in turn, generates further confidence and motivation to invest in new areas that are likely to improve absorptive and adaptive capacities and therefore resilience.
- The sequencing of activities is important, especially where the provision of climate information is involved, so that people are able to act on it.
- Strengthening market linkages by supporting private sector actors to operate in the remote areas in which many of the BRACED project participants are living, reduces the risk to private sector providers entering new markets, brokering products and services that meet the needs of BRACED project participants. This fills a real gap in provision and changes fundamentally the external context with the potential for real, systemic and transformative change.
- Providing resources such as tools and materials or addressing basic needs means that people are more likely to respond to the project resources and implement activities resulting in tangible, longer-term benefits. This can be the difference between people participating and the project succeeding, or not.
- Community buy-in requires projects that respond to or change the context so that sufficient trust is generated towards the project for people to participate. This can be through working collaboratively with communities, getting the right people on board at the community level, including capitalising on demonstration effects by early adopters, ongoing involvement of project staff and follow-up with communities, emphasising practical demonstration.
- This means interventions are more likely to address beneficiary needs and expectations, uptake is higher and people will actually carry out activities to improve their absorptive and adaptive capacities. Interventions and results are more likely to be sustainable after direct project involvement ends.

- At higher levels of the system, strengthening and raising the capacity of key institutional actors with influence at the national level leads to raised awareness and an increased likelihood of socially responsible investment and policy. This potentially will improve the wellbeing and absorptive capacities of marginalised people.
- Where existing policies work against poor, marginalised people and groups, a coordinated advocacy strategy implemented with partners with capacity is critical to shifting attitudes among powerholders at national and regional level in order to achieve effective and sustained change.

Box 1: Summary mechanisms

Implementation responds to context

- Hands-on, practical support that is relevant.
- Project demonstration.
- Ongoing involvement and follow-up.

Layering and linking: between activities, institutions and across scales

- Layering and linking of activities.
- Using existing institutional structures.
- Linking across different institutional 'levels'.

Influencing context to create conditions for change

- Access to financial services.
- Institutional change including social norms/culture.

Collaboration and credibility

- Participatory design and implementation.
- Activities in line with needs of community.
- Strong involvement of village leaders.
- Practical demonstration.
- Word-of-mouth.
- Engaging the right champions/higher level formal institutions.
- Using existing (formal and informal) institutional structures.
- Working with recognised expertise.

Meeting basic needs as an underlying condition for further participation

- Accepted by participants as responding to their needs and priorities.
- Participants able to take risks.
- Quick wins help buy-in.

Providing incentives and subsidies to encourage participation

- Meeting community expectations.
- Overcoming lack of trust.
- Compensating for low commercial viability.

Strengthening institutions and linking across scales

- Strengthening links in communities.
- Building understanding and capacity at higher institutional levels.
- Advocacy to shift attitudes.
- Working with high-capacity partners.

Working with the private sector to create public-private linkages

- Creating markets and employment opportunities.
 - Improving farmers' business sense.
 - Institutional change: market linkages to formalise sector.
 - Institutional change: addressing thin or missing markets by brokering supply of products and services, stimulating demand and improving market dynamics.
-

Concluding comments and reflections

BRACED projects have made considerable progress towards building and strengthening resilience despite the short time-frame of the programme (3 years). The evidence presented in the BRACED project final evaluations and the synthetic analysis using a realist lens highlight a number of valuable insights into how good practice, demonstrated by the projects, can be replicated.

Some outcomes such as improved access to financial services and to climate information are showing potential not only at the local level but system-wide; a number of implementation models have achieved local impact and could be replicated across contexts.

Overall, the holistic approach of most of the BRACED projects suggest that the *combination* of activities, *approaches* to implementation and *layering* of outcomes determine the extent to which they build resilience. These matter, crucially, to fostering the right (enabling) contexts and, in turn, appropriate incentives so that people respond to the project activities in the right ways. To bring about systemic, transformative change, project activities must address any disconnectedness between different institutional levels, building and strengthening capacity and community, local and national levels to achieve resilient change.

A photograph of a group of women in a rural setting, possibly a water collection point. The women are wearing head coverings and carrying large blue plastic containers. The scene is overlaid with a semi-transparent blue filter. The text 'PART 1. BACKGROUND TO THE EVALUATION' is centered over the image.

PART 1. BACKGROUND TO THE EVALUATION

A photograph of two women sitting on a wooden bench in front of a blue window with vertical bars. The woman on the left is wearing a red top and a patterned skirt, and the woman on the right is wearing a checkered top and a patterned skirt. The image is overlaid with a blue tint.

1. INTRODUCTION

Image: ICIMOD
Kathmandu

1.1 What is BRACED?

The Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) programme is a three-year, £110 million programme funded by the UK Department for International Development (DFID). The programme launched in January 2015. It supported over 120 organisations in 15 consortia to implement 15 projects across 13 countries in East Africa, the Sahel and Asia. These consortia include local government and civil society organisations, research organisations and the private sector.

BRACED has been implemented over a relatively short length of time in countries with populations that are already being disproportionately affected by climate extremes and disasters.¹ Global warming both increases the frequency

¹ At the end of October 2017, DFID decided to extend the BRACED programme for another 15 months (from January 2018 to March 2019). This period (and the wrap up period that follows) is referred to as the BRACED extension. Nine IPs have received grants under the BRACED extension. It aims to cover some of the activities originally envisaged under Component D of the BRACED programme aiming to develop national and international capability and capacity to respond to climate extremes. BRACED extension includes a no-cost extension to extend current BRACED implementation activities (until March 31st 2018 with wrap-up to June 2018). The additional funding for BRACED projects is separated into two distinct windows; implementation (£16m) and policy (£2.5m).

and intensity of climate extremes, as well as increasing uncertainty about the occurrence and timing of climate conditions. The impacts of climate change interact with poverty and other forms of vulnerability. Conflict has a multiplying effect on these challenges, and in countries where BRACED projects are being implemented, including South Sudan and Mali, climate shocks and stresses may be exacerbating the underlying causes of conflict.

BRACED aims to **build the resilience of five million vulnerable people** against climate extremes and disasters. It does this through:

- Scaling up proven technologies and practices.
- Research and evaluation to build knowledge and evidence on how best to strengthen resilience in different contexts.
- Enhancing local and national capacity to respond to climate-related shocks and stresses.

1.2 Purpose of this report and intended users

This report presents findings of a synthesis of project final evaluations (FEs) carried out by the 15 BRACED Implementing Partners (IPs). It examines the following central evaluation question:

How, where, when and why do BRACED interventions work, and what can be learned/how can good practice be replicated?

To answer this question, we discuss progress towards outcomes from BRACED projects at the FE, after three years of implementation. The purpose of this evaluation activity is not to assess progress and performance of individual projects. Rather, we **synthesise evidence and key lessons** on implementing a resilience-building programme. By looking across a range of contexts in building and strengthening resilience, we are also able to reflect on how good practice might usefully be replicated.

This programme-level synthesis is one of five evaluation activities led by the BRACED Knowledge Manager (KM) (BRACED 2015a).² By focusing on evidence of how, where, when and why BRACED projects work, it complements the other evaluation activities, annual reporting by the IPs and BRACED monitoring and routine results reporting under the monitoring and evaluation (M&E) framework, including the BRACED Annual Report Synthesis.³

² See BRACED Evaluation Framework in Annex 1.

³ Silva Villanueva, P. *et al.* (2016); Silva Villanueva, P. and V. Sword-Daniels (2017).

The intended users of this report are:

- **DFID:** By providing an assessment of how and why BRACED intervention packages are working, capturing innovation and strengthening the BRACED theory of change (ToC), it is hoped that this report can assist with decisions about how to plan and implement strategic resilience-strengthening interventions.
- **The BRACED IPs:** The report provides a qualitative synthesis of evidence from projects of how, when and where BRACED project interventions are working, highlighting achievements and lessons. This could be used to inform future programmes.
- **KM and Fund Manager (FM) teams:** The report provides evidence of what has worked in building and strengthening resilience, how and why. The mix of qualitative and quantitative evidence presented can inform further research and complements the monitoring and results-reporting synthesis findings, including in the BRACED extension and future iterations of resilience work.
- **Others designing, implementing, funding and evaluating resilience-building projects and programmes:** The evaluation methodology draws on realist evaluation principles and methods, building on the evidence generated at mid-term review (MTR). This is a relatively new and untested approach in evaluating complex development projects. Our experience with the methodology may offer some useful insights and learning for others designing, implementing or evaluating complex and complicated programmes.

1.3 The final evaluation

The BRACED FE Synthesis draws on evidence from project-level FEs carried out by IPs between November 2017 and February 2018. The objective of the FE was to assess how and why project interventions are leading to outcomes and building resilience in different contexts, and for whom. To achieve this, IPs needed to conduct a final evaluation that was:

- Process-orientated and explanatory in nature.
- Focussed on 'mechanisms' – defined in BRACED M&E Guidance Note 7 as *'the causal forces or powers that explain why a change happens'* (BRACED 2015b).

During the FE, as in MTR, IPs reflected on evidence of project successes and failures, and any enablers and constraints, in order to explore, test and revise assumptions about pathways to change. The BRACED Evaluation team provided guidance and support to IPs to promote consistency and quality, so that IPs could generate robust evidence and learning on whether and how 'packages' of interventions build resilience to climate extremes and disasters in different contexts. The main components of the final evaluation including key outputs

are set out in Table 1. IPs used a range of methods, including quantitative end-line surveys and in-depth, qualitative investigation.

Table 1: Final evaluation main components and timeframe

FINAL EVALUATION (FE)		
FE planning and design	FE conducted	FE synthesis
July 2017	November 2017– February 2018	March–July 2018
<p>Focus</p> <ul style="list-style-type: none"> • Evaluative learning orientation. • Resilience-strengthening outcomes, delivered against each project's logframe and ToC. • Learning to tell us 'what works and why' about interventions for supporting resilience in particular contexts and informing future interventions. 		
<p>Outputs</p> <ul style="list-style-type: none"> • 15 x project-level inception reports • 15 x project-level evaluation matrices and ToRs • 15 x project-level FE reports • 1 x programme-level synthesis report • Synthesis summary 		
<p>Conducted by external, independent consultants, or in-house M&E staff, or a blend of both, using a robust methodology. Methodological support to evaluation teams, and quality review of reports was provided by the KM Evaluation Synthesis and Support Team.</p>		

1.4 Report structure

The report is presented in two parts (Part I: Background and Part II: Findings), broken down into a number of sections.

Section 2 describes the BRACED projects, how we conceptualise resilience within the BRACED programme and the resilience framing used in the analysis and synthesis of the IP FEs. Section 3 sets out the methodology for the MTR synthesis, including evaluation approach, a description of data, and the approach to the synthesis and assessing quality of evidence. Section 4 presents the findings of the FE reports synthesis, focusing first on what BRACED projects have achieved in strengthening and building resilience, before moving on to explain how and why change happened in the way it did across the projects, for whom and in what contexts, in Section 5. Section 6 concludes with lessons learned through the FE process across the BRACED portfolio about future resilience-strengthening programming, paying attention to good practice and replication.



2. BRACED PROJECTS

Image: World Bank/
Salahaldeen Nadir

The projects operate across a range of contexts to build local-level resilience, on both national and regional scales, with diverse partnership arrangements and implementation modalities, using a variety of strategies (packages of activities). The complicated nature of the programme influences and guides the choice of evaluation methodology and the way we analyse and present the data in this report.

2.1 Project activities

By learning from projects about which approaches work and in what contexts, BRACED aims to influence policy making and development planning in national and local governments, and regional and international initiatives.

The projects have implemented packages of activities working directly with individuals, households and communities as well as with local-level institutions, local and national governments, and in collaboration with the private sector. In combination, these packages of activities aimed to contribute towards achieving the overall outcome of improved resilience to climate-related extremes and disasters. Project activities include: training (e.g. in the use of improved seeds, in climate-smart technology, health and nutrition); support for natural resource management; establishing and supporting EWS; water management

and water and sanitation hygiene (WASH) activities; improving access to climate information; supporting access to financial services (savings and loans groups, microfinance and insurance). For some activities, the projects work directly with beneficiaries, building institutional capacity, providing grants and technical support or resilience-building activities. In other cases, the projects may work through private sector actors to deliver services/goods to a new geographical region or adjust them to the needs of more vulnerable groups. Table 2 lists the different activities carried out by the 15 BRACED projects.

2.2 Resilience in the BRACED projects

Within BRACED, resilience is understood as the '*ability to anticipate, avoid, plan for, cope with, recover from and adapt to (climate-related) shocks and stresses*'.⁴ As part of their M&E systems, the BRACED projects have followed a common approach to measure the 'outcomes' of resilience-building processes, conceptualised as **a set of interlinked capacities to absorb, anticipate and adapt to shocks and stresses**, as well as **laying foundations for transformation and transformative change** ('the 3As and T').⁵ The capacities making up the 3As are:

- Anticipatory: before a shock or stress – ability to undertake proactive actions to avoid upheaval, e.g. heeding early warnings, changing the way houses are built, reducing landslide risk, targeting by radio announcements.
- Absorptive: after a shock or stress – ability to buffer shocks in the short term, e.g. access to savings and finance, disaster preparedness, social protection.
- Adaptive: before, during and after a shock or stress – able to react to evolving/dynamic risk of disturbance to reduce likelihood of harmful outcomes, e.g. growing drought resistant crops, diversifying livelihoods, irrigating agricultural production.

These capacities, in turn, are seen to ensure that the wellbeing and human development of communities carry on in spite of shocks.⁶

In addition, BRACED projects are expected to demonstrate progress towards achieving transformative change, moving beyond supporting incremental changes in people's resilience towards a more radical shift in human systems, '*to fundamentally and sustainably improve the resilience of vulnerable citizens to climate impacts*'.⁷ What evidence is there that the interventions and the mechanisms that support them have the potential to deliver 'amplified results' and/or 'transformational impact'?

⁴ DFID (2014) cited in *The 3As: tracking resilience across BRACED*, p. 11.

⁵ Badahur *et al.* (2015).

⁶ BRACED M&E guidance notes: Note 4 on *Measuring resilience outcomes – the 3As approach*; and also Note 7.

⁷ Silva Villanueva, P. *et al.* (2016), p. 62.

Table 2: BRACED project activity areas

PACKAGE OF INTERVENTIONS	ANUKULAN (IDE – NEPAL)	BRICS (CONCERN – CHAD AND SUDAN)	CIARE (CHRISTIAN AID – ETHIOPIA)	DCF (NEF – MALI AND SENEGAL)	IRISS (CONCERN – SOUTH SUDAN)	MAR-E (FARM AFRICA – ETHIOPIA)	MYANMAR ALLIANCE (PLAN)
1a) Horticulture and Cropping	•	•	•	•	•	•	•
1b) Livestock Management		•	•	•	•		
2. Nutrition and Health (including training, behaviour change)	•	•			•		
3. Water Supply (system development, water management for households and agriculture)	•	•	•	•	•		•
4. Natural Resource Management (forest and watershed governance, pasture management, cookstove technology)	•	•		•	•	•	•
5. Financial Inclusion (village savings and loans schemes, links to financial service providers)			•		•	•	•
6. Entrepreneurship (training, group formation, value chain development, service providers)	•		•		•	•	
7. Planning and Policy Influence (community planning, local capacity building, grant making, advocacy, lobbying, national policy influence)	•	•	•	•	•	•	•
8. Disaster Risk Management and Early Warning (group formation, early warning systems, hazard mitigation, improved forecasting and climate information)	•	•	•	•	•	•	•
9. Gender and Social Inclusion (organisational change, training, policy influence, self-help and support)	•	•	•	•			•

* Senegal, Niger, Mauritania, Mali, Burkina Faso

PACKAGE OF INTERVENTIONS	LIVESTOCK MOBILITY (AFL – 5 COUNTRIES*)	PRESENCES (CARE – NIGER)	PROGRESS (MERCYCORPS – KENYA AND UGANDA)	RIC4REC (IRD – MALI)	SUR1M (CRS – NIGER AND MALI)	WHH (BURKINA FASO)	ZAMAN LEBIDI (CHRISTIAN AID – BURKINA FASO)
1a) Horticulture and Cropping		•	•	•	•	•	•
1b) Livestock Management	•	•	•	•	•	•	•
2. Nutrition and Health (including training, behaviour change)					•	•	•
3. Water Supply (system development, water management for households and agriculture)		•	•	•			•
4. Natural Resource Management (forest and watershed governance, pasture management, cookstove technology)	•		•	•	•	•	•
5. Financial Inclusion (village savings and loans schemes, links to financial service providers)	•	•	•	•	•		
6. Entrepreneurship (training, group formation, value chain development, service providers)			•	•	•	•	
7. Planning and Policy Influence (community planning, local capacity building, grant making, advocacy, lobbying, national policy influence)	•	•	•	•	•	•	•
8. Disaster Risk Management and Early Warning (group formation, early warning systems, hazard mitigation, improved forecasting and climate information)	•	•	•	•	•	•	•
9. Gender and Social Inclusion (organisational change, training, policy influence, self-help and support)		•	•	•	•		

Evaluating outcomes that demonstrate resilience requires us to differentiate between those outcomes that signify that resilience has been built or strengthened, and those that do not. Our starting point is acknowledging that the resilience objectives sought by BRACED projects are strongly linked to the development outcomes the projects have achieved. Projects may also be building and strengthening resilience in different ways. Resilience is also about the processes involved in realising those outcomes, for example in bridging institutional 'gaps' or in changing underlying social norms and beliefs to make the intervention work. This evaluation **recognises resilience as an intermediate outcome**, not an end in itself but a step towards improving wellbeing.⁸

We also recognise that the BRACED programme plays a contributory role in what, for many people, will be an intergenerational process of building resilience. In other words, the changes (outcomes or results) of project activities should be intermediary steps in a longer-term, (strategic) process of transformation.

The importance of thinking about resilience as processes as well as outcomes is highlighted in *Routes to Resilience: Insights from BRACED Year 2*:

...Multi-faceted programmes may ... still fall short of delivering resilience programming if focus remains on the 'elements' of resilience rather than also on the processes needed to facilitate and support change.

This points to the need for integrated resilience programmes that balance what is essential in resilience programming with what is feasible in practice and the most effective approaches and processes within each context to achieve meaningful change.

Silva Villanueva, P. and V. Sword-Daniels (2017): page 12.

Resilience considerations

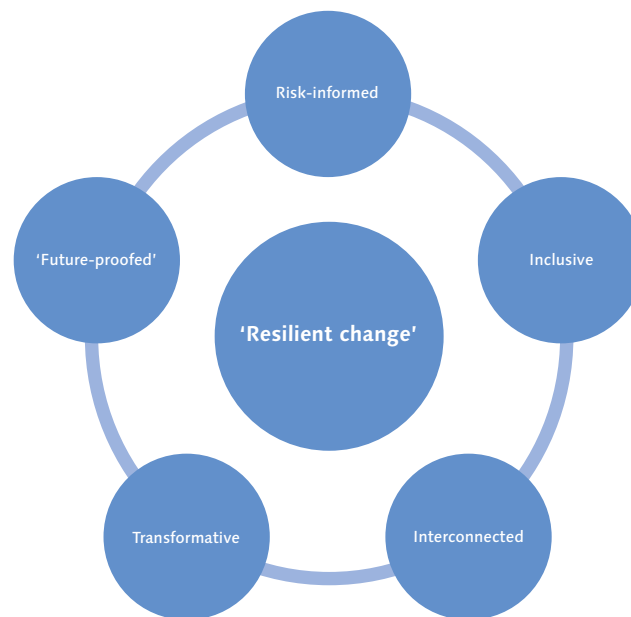
Absorptive, anticipatory and adaptive capacities largely refer to outcomes that contribute to resilience. In order to also consider whether the underlying processes in change pathways embody resilience, we expand on these so that we have resilience 'considerations'. These include features of processes and outcomes (including 3As and T) clustered under the headings risk-informed, inclusive and interconnected, to provide a way of thinking about resilience as *both* the set of characteristics that make an outcome 'resilient' *and* how the outcomes themselves contribute to resilience.

The overarching components of our resilience dimensions are set out in Figure 1. In 'assessing' whether or not the reported results of BRACED projects are indeed 'resilient', we need to exercise a certain degree of professional judgment. These are not formal, quantifiable indicators, and an outcome or process may not 'score' well in one dimension but could still be considered

⁸ Bene *et al.* (2015).

to be resilient because it scores highly elsewhere. The dimensions of resilience are essentially a guide for examining the nature of the relationship between outcomes and resilience in a systematic and comprehensive way so that we can avoid inadvertently favouring some kinds of context or intervention over others, for example, projects focusing on easy-to-reach people starting from a higher base, compared to those implementing activities in fragile and/or crisis contexts.

Figure 1: Resilience dimensions



Transformation

- Nature (depth) of the change – For example: Has the outcome made a fundamental difference to how income is earned? Or affected beneficiaries' standing in the community? Has there been a policy change? Have embedded power structures been addressed?
- Magnitude (scale and scope) of the change – We need to differentiate significant changes from incremental changes. For example, a 50% increase in yield may significantly change a household's financial and food situation whereas 5% may make little difference. Is it just happening in one household, one community, an entire district, or at national level?
- Sustainability – Will changes be sustained, independent of project actions or subsidies? For example, is income realised from the sale of a horticulture crop, introduced by the project, likely to continue after the project? Are improved practices likely to continue without direct support from project staff?

- Leadership and empowerment – Does the change shift the way that power is held in decision-making process, to make them more inclusive? Does it involve engagement with strategic-planning processes?
- Innovation and disruption – Is the project something that disrupts the status quo or brings about a likely technical innovation that will have broadscale impact?

Risk-informed

Resilience-building is designed to address likely climate risks faced by project participants. This can be through activities that lead to:

- Reduced exposure – Do the changes help to meaningfully reduce exposure to a climate hazard? Examples might be creating commercial opportunity for someone who was previously dependent on farming (adaptive capacity) or the construction of water-management infrastructure that reduces likelihood of flooding.
- Increased coping – Does the change mean that an individual, household or community is better able to manage a period of crisis without incurring loss, such as through the purchase of an insurance product or by having savings in a bank (absorptive capacity)?

Interconnected

Resilience literature often emphasises the role of systems to drive opportunity or improve coping. It is the opposite of perceiving an individual or community as an 'island'. We looked at how changes were embedded vertically or horizontally in systems, including connections between activities, actors, institutions, and their likelihood of contributing to resilience:

- Vertical linkages (operating at scale) – Vertical linkages relate to connections within a system, such as how a change or outcome is linked to different levels of a value chain, institution, government or health system.
- Horizontal linkages – Horizontal linkages refer to connections that the activity or change brought about by the project has established across geography, sectors, institutions, services providers.

Inclusiveness: whose resilience?

Once identified, resilient changes were then analysed to understand who may have benefitted and who did not. We looked at factors such as age, sex, rural/urban, wealth group to see who participated in a given package of activities and who had likely benefitted from changes made (and who did not). Were the outcomes socially differentiated? Why, for whom and in what ways? Are the opportunities and benefits presented by the project inclusive, accessible by the most vulnerable people?

"Future proofing"

One important consideration is whether and how the changes seen may be able to stand up, not only to extreme events, but to scenarios such as a global temperature change exceeding 1.5 degrees Celsius. Will the outcome itself be able to continue? Will the outcome enable people to better manage these future conditions? Modelling future climate impacts was beyond the scope of the evaluation. However, as a 'sense-checking' exercise we considered whether or not IPs had considered how sustainable outcomes would be in the face of longer-term, changing climate-related risks and opportunities, for example through scenario analysis, in order to link the analysis of resilience outcomes to the climate change mandate of BRACED.



3. METHODOLOGY

Image: USAID Nepal

3.1 Realist evaluation approach and research questions

We have supported IPs to use a realist evaluation 'lens' (described in more detail in Annex 2) while collecting their FE data and in their analysis to help us to answer the EA2 synthesis question:

How, where, when and why do BRACED interventions work, and what can be learned/how can good practice be replicated?

In realist evaluation, **context** is understood as the most important influence on whether an **intervention** succeeds in activating a change process (often referred to as a '**mechanism**') that will cause an outcome. Causation in realist evaluation therefore rests on understanding the influence of context on 'mechanisms', and context, as well as the mechanisms themselves, on outcomes.

In carrying out their FE in a realist-informed way, IPs were able to 'formalise' important questions about how, why, for whom and in what contexts their

projects have worked, in order to bring more depth to the FEs, allowing us to 'interrogate' the BRACED ToC. It continues the approach laid out in the MTR.⁹

In their FEs, the IPs addressed the following evaluation questions, set out in BRACED M&E Guidance Note 7.¹⁰ This includes a detailed understanding and explanation of mechanisms through evaluation question 2 by exploring how and why interventions led to a particular change.

Evaluation question 1 – To what extent have particular packages of interventions delivered in terms of strengthened resilience?

Evaluation question 2 – Specifically focussing on understanding 'mechanisms', how and why have particular intervention packages led to observed results and changes? Sub-questions under this question should explore:

- How do IPs, project stakeholders and beneficiaries think an intervention results in change?
- What is it about the nature or design of the intervention that enables it to be effective or not?
- What evidence is there that the interventions and the mechanisms that support them have delivered 'amplified results' and/or 'transformational impact'?

Evaluation question 3 – Based on your accumulated knowledge and understanding, what key resilience-strengthening lessons can be learned and replicated from your project?

3.2 Theories of change: how the BRACED programme works

The overall BRACED programme evaluation framework follows a theory-based approach, evaluating along the pathways from programme to intervention (projects) to activity areas to outcomes, which all tell the story about how the programme is expected to work to bring about change.

- ⁹ Explanations and theories about how change happens are expressed as Context-Mechanism-Outcome (CMO) configurations: '*In Context C, by implementing activity I in a particular way, a change process M (mechanism) fired for these actors, generating outcomes O*'. At MTR, IPs applied a realist lens enabling us to develop CMO configurations to shed light on change pathways hypothesised in the project and programme theories of change (See Annex 5 for CMOs generated at MTR).
- ¹⁰ BRACED (2015) 'BRACED M&E Guidance Notes: Note 7 – Supporting Project to Programme Evidence and Learning: Further Details on Project Mid-Term Reviews and Final Evaluations'. Braced Knowledge Manager. Brighton: Itad.

There is an inherent 'hierarchy' in theories about how the programme works. At the top level is the BRACED Common Theory of Change (see Annex 3), the individual project theories of change then align to the Common ToC. Next come the programme theories for the IPs' activity packages (see Annex 4), and lastly Intervention-Context-Mechanism-Outcome (ICMO) configurations (see Annex 5). ICMO configurations are very detailed change pathways that include underlying causal forces or powers that might explain why change or an outcome may or may not happen (mechanisms). At MTR, IPs and the BRACED Evaluation Synthesis and Support team generated ICMOs evidenced by progress at mid-term (Annex 5), at a very 'micro' level. For the BRACED IP interventions, this largely relates to behavioural change and the decision making and actions of human beings: how people react to the opportunities presented by the BRACED programme within their context.¹¹ For example, the following increased food supply, dietary diversity and incomes ICMOs:

Trainings and provision of improved seeds (essential oil and vegetable) (I), where projects are operating in areas with limited market access for agriculture and essential oils (C), and farmers on the whole were producing vegetables before the project (C), [farmers have taken up climate smart technology] (C) AND farmers like the project approach (M) [they find it credible, they like the integrated approach/cycle of support, like the input support, they like the training on nutrition/health – (I)]; AND can see benefits of potential increased income due to increased land in cultivation (M); AND farmers like the practical way the training is carried out (M), so it is easy to carry out the technique (M) results in farmers scaling up production (output) leading to (94 per cent of) farmers now cultivating new vegetables they were not doing before; and increased annual incomes from sale of vegetables and essential oils (average income of £114 for vegetables and £183 for the oils) (O).

Anukulan (MTR Report).

Building knowledge and capacity at household level for farmer-managed natural resources to cultivate moringa and fruit trees – providing training in nursery establishment and propagation techniques that are more reliable (I), where previously farmers could only propagate from seed (C). Targeting areas with a water source (C) and community natural resource groups are already established (C), with knowledge and active concern about desertification (C), and the project is operating within a traditional context at the village level with deeply entrenched gender norms (C) AND training is hands-on (I) follow-up demonstration is rapid (I) with frequent visits by project staff (I), using technology that is more reliable (IM), with a sanctioning system in place (I), combining

¹¹ Wong et al. (2013).

an immediate income stream with long-term benefits (I). This means that demonstration plots and nurseries have been established (Output), people are propagating using improved practices (Output) and trees have been planted (Output) with cuttings being sold providing extra income to households (O).

BRICS (MTR Report).

Mechanisms go deeper than the intervention to explain why the intervention leads to change. Thinking about it in this way helps to think through how the programme gets from activities through to outputs, outcomes and, ultimately, impact.

3.3 The data

The BRACED Evaluation team drew on a range of data sources in conducting the evaluation. This section summarises the main data sources for the synthesis.

3.3.1 Desk study

The BRACED Evaluation team carried out a desk review of the BRACED programme, project and KM background documents (secondary data), including:

- Project proposal documents.
- Project ToC narrative.
- Project monitoring and evaluation plans.
- Year 1 and 2 annual reports and monitoring and results-reporting reports.
- IP MTR reports.

3.3.2 BRACED project final evaluation reports

In the FE, IPs aimed to generate and elaborate a detailed understanding not only of what has worked but also how and why an intervention led to a particular change. Understanding the mechanisms at work (and the contextual factors that affect the working of that mechanism) required asking a range of project stakeholders why things happened in a certain way, grounded in an evidenced understanding of what projects had achieved through their lifetime.

Most IPs took a mixed methods approach to the FE, combining quantitative data from end-line surveys and/or monitoring data, and layering in qualitative enquiry using a realist lens to explore how and why change happens, for whom and in what circumstances. The evaluations paid specific attention to how context affects the ways in which activities lead to behavioural and institutional changes that, in turn, lead to outcomes. FE reports were syntheses of the analysis of all the data (primary and secondary) gathered for the FE.

3.4 Synthesis approach

3.4.1 Coding and analysis

The IP FE reports were coded and analysed in Dedoose, cloud-based computer-assisted qualitative data analysis software. An initial list of codes was generated from the programme ToC, the projects' theories of change and the hypotheses/assumptions/CMOs that the IPs identified in their inception reports as those they were going to explore in the FE. Annex 6 contains a detailed description of the coding and analysis process. Further codes were added iteratively from the FE reports. We used outcomes as the primary unit of analysis, keeping data related to each ICMO configuration together.

The FE synthesis is based on a thematic analysis of the data from each IP FE. This involved identifying, examining, and recording patterns (or 'themes') within the data, which are important to describe what is happening on the pathway toward achieving strengthened resilience. By taking a comparative case study analysis approach,¹² we analyse and synthesise similarities, differences and patterns across cases that share a common focus or goal in a way that produces generalisable knowledge to respond to the synthesis evaluation question of how, why and for whom do BRACED projects work (or not) in building and strengthening resilience in particular contexts.

3.4.2 Level of abstraction

Level of abstraction refers to the level of generalisation when explaining the findings from projects. This can range from a specific finding from one specific project to more general explanations that encompass findings from different contexts, to highly abstract explanations that are so general as to be of limited use. Our analysis in the FE synthesis seeks patterns and dissonance across the underlying pathways of change (or ICMOs), evidenced by the individual BRACED projects in their FEs. For the MTR, our analysis focussed at the very micro level, with pathways to change and ICMOs established largely at the level of individual projects and ICMOs representing very specific explanations of how and why change happened. This was due to the stage of implementation at the time of the MTR. Most projects had not been implementing long enough for any maturation effect to have been realised, and therefore we did not have a sufficient 'pool' of evidenced outcomes to be able to synthesise across the projects and to go much beyond the specific explanations. For the FE, we are able to synthesise to create more **abstract explanations for groupings of findings across the projects**. This adds a more explanatory layer helping us to tell a generalised story about how and why BRACED project activities have built resilience, and for whom, thinking about theories that have a bearing on resilience at a larger scale to tell the 'resilience story' of the programme. **Our ICMOs are presented in Section 5 at this more generalised level.**

¹² Goodrick (2014).

3.5 Limitations of the synthesis

The main limitations to the synthesis relate to the **quality of source evidence**.

The synthesis depended on the quality of underlying IP data, and the degree to which realist analysis could be conducted on the evidence. The Evaluation Synthesis and Support team provided guidance, one-on-one coaching, as well as reviews of evaluation inception and final reports.

Beyond this, however, the team had limited control over the evaluations, which the IPs were responsible for commissioning and conducting using resources from their project budget. Many projects selected independent consultants, many of whom were unfamiliar, and in some cases unwilling to engage, with a realist evaluation approach. IPs also faced challenges, including varied quality in baseline studies, and security risks, which in some cases prevented fieldwork.

Two important areas of weakness with implications for the realist-focused synthesis are the lack of adequate data on 'for whom' the change is occurring, with low consideration of different characteristics of the project participants, including gender and other forms of social difference. Based on the guidance provided to IPs, the majority of FE reports included some analysis on how benefits from BRACED were shared between women and men. However, sex-disaggregated data was limited, as was analysis of more significant shifts, such as changes to institutional structures and power relationships that shape women's lives.

In terms of how context comes into play in considering how change happens, and specifically thinking about context as sets of conditions that allow mechanisms to 'fire', the FE reports did not go beyond a 'scene-setting' conception of context.

The Synthesis team has managed this by reviewing the quality and strength of evidence from each source report (see Section 3.6 and Annex 7) and applying professional judgment.

3.6 Quality and strength of evidence

For our data the **quality and strength of evidence for conducting a realist analysis and synthesis of the data** can be considered on three levels. First, the quality of the underlying data related to outcomes – how confident are we that outcomes happened? Second, 'filtering' outcomes and processes using the resilience considerations outlined in Section 2.2 above – to what extent can outcomes or the characteristics of pathways and processes leading to those outcomes be said to be 'resilience'. Third, in relation to the synthesis and ICMOs, how confident are we that this theory explains the outcomes and change processes? – Is there a range of evidence from across a number of projects? Or strong evidence from individual projects or activities?

Based on document review of the IP FE reports, focusing on the design and methodology of the FE, Table 3 summarises the strength of underlying evidence

given in the IP FE reports, considering both outcomes and contribution. The full table is in Annex 7. The 'rating' for each project depends on the following:

Implementation

- Scale and scope of outcomes/findings.

Methodology

- Scale and scope of FE – sample sizes, selection process. Does the scale and scope of the FE data collection reflect/do justice to scale and scope of the project? Quality of qualitative and quantitative sample selection and data collection process.

Analysis

- Quality of report in evidencing outcomes (specific, stepping away from rhetoric; the right metrics; plausible and robust attribution or contribution story); triangulation of data sources.
- Strength of report – richness, how reflective and critical.

Table 3: Strength of evidence in FE reports

PROJECT	COUNTRY	FE STRENGTH OF EVIDENCE RATING
Vivre avec l'eau/Live with Water	Senegal (Dakar)	Low
Livestock Mobility	Niger; Burkina Faso; Mali; Senegal; Mauritania	Low–Medium
Decentralising Climate Funds	Mali; Senegal	Medium
RIC4REC	Mali	Low–Medium
Anukulan	Nepal	Medium
BRICS	Chad; Sudan	Medium–High
SUR1M	Niger; Mali	Medium
Market Approaches to Resilience	Ethiopia	High
Myanmar Alliance	Myanmar	Medium
IRISS	South Sudan	Medium
Changing Farming Practices/BRES	Burkina Faso	Medium
Zaman Lebidi	Burkina Faso	Medium
PRESENCES	Niger	Medium
CIARE	Ethiopia	Medium
PROGRESS	Uganda; Kenya	Medium–High

However, while a report may receive an overall rating putting them in one 'category' (for example 'medium'), there may be some areas where they have been particularly strong. The BRACED Evaluation team has taken this into account in the analysis and synthesis here. In addition, because the elapsed time between baseline and end-line has been very short and, in general, there is a high degree of variability in agriculture that means long data series are often needed to confirm significant trends, given that the BRACED programme does not have a long implementation period, we need to exercise caution accepting benefits presented by the projects at face value.

The strength of evidence for mechanisms/ICMOs is only as strong as the evidence for the underlying outcomes. To this effect, the extent to which we are confident that our synthesis of mechanisms/theory explains the outcomes and change processes is based on a combination of the strength of evidence for outcomes and how emerging theory compares to the ToC and MTR findings, as well as the degree and extent to which the ICMOs are evidenced by the underlying projects.

To assess strength of evidence of ICMOs, we apply the criteria developed by the BCURE Evaluation team for the realist enquiry in their FE.¹³

Table 4: Strength of evidence of ICMOs

STRENGTH OF EVIDENCE	REALIST ENQUIRY
Strong evidence	<p>High level of confidence that the outcome occurred/did not occur as a result of x mechanism, operating in y context and as a result of z features of the intervention...</p> <p>...Based on a good degree of triangulation: a) within interviews, b) across stakeholders and types of stakeholders, and/or c) across data sources.</p> <p>...Taking into account the position, knowledge, analytical capacity, reflexivity, and potential biases of primary informants.</p> <p>...and also taking into account what we know about the broader context.</p>
Some evidence	<p>More confident than not that the outcome occurred/did not occur as a result of x mechanism, operating in y context and as a result of z features of the intervention...</p> <p>...But confidence is reduced by:</p> <p>Shortcomings with regards to triangulation.</p> <p>And/or concerns that the position, knowledge, analytical capacity, reflexivity, and potential biases of primary informants lower the reliability of evidence.</p> <p>And/or what we know about what is happening within the broader context.</p>
Limited evidence	<p>Low level of confidence that the outcome occurred/did not occur as a result of x mechanism, operating in y context and as a result of z features of the intervention, given that...</p> <p>...Evidence comes from a small number of sources with limited triangulation.</p> <p>And/or...there are major concerns that the position, knowledge, analytical capacity, reflexivity, and potential biases of primary informants lower the reliability of evidence.</p> <p>And/or...there are contradictory insights into what is happening within the broader context.</p>

¹³ Vogel and Punton (2018). <http://itad.com/reports/annexes-final-evaluation-building-capacity-use-research-evidence-bcure-programme/> (accessed 14/6/18).

A woman wearing a red headscarf and a patterned dress is looking down in a tent. The background shows the interior of a tent with a leopard-print patterned fabric. The image has a blue tint.

PART 2. WHAT DID WE LEARN?

This section presents the main findings of the FE synthesis process. Section 4 focusses on what the BRACED programme has achieved, synthesising across project outcomes. Section 5 looks at how and why change happens, specifically the intervention factors (the way projects do things) and mechanisms (behavioural changes) that make outcomes happen, given the context. Section 6 concludes, drawing lessons about what can be learned from across the BRACED portfolio about future resilience-strengthening programming.

A young boy in a red shirt is herding a group of white cows in a dry, dusty landscape. The scene is overlaid with a blue tint. The text '4. OUTCOMES: WHAT THE BRACED PROGRAMME HAS ACHIEVED' is written in large white letters across the middle of the image.

4. OUTCOMES: WHAT THE BRACED PROGRAMME HAS ACHIEVED

Image: Ray Morris

The 15 projects that comprise BRACED are achieving outcomes for poor people. Outcomes contribute to strengthened resilience and adaptation, and some interventions are already supporting women and men in target areas to improve wellbeing in spite of shocks and stresses.

This chapter summarises the key outcomes reported by the BRACED projects, providing an overview of how the projects have contributed to the BRACED programme-level Outcome: **poor people in developing countries have improved their resilience to climate-related shocks and stresses**. It explores evidence of how and why BRACED interventions have contributed to outcomes, and the way these are related to, and contribute to, resilience and adaptation to climate extremes and disasters.

Different outcomes and pathways will reflect resilience considerations in different ways and to varying degrees, dependent on context, so we draw on our professional judgment as well as strength of evidence. It is important to note that an outcome could be seen to be 'resilient' in and of itself, and the product of particular mechanisms 'firing' in a specific context (from a realist perspective). Equally, an outcome could contribute to resilience by creating the conditions that allow mechanisms to 'fire' that, in turn, allow people to move to more resilient states.

Building on the resilience considerations in Section 2.2, this section examines outcomes in four domains:

- **Individual and household-level outcomes:** What difference has BRACED made for individuals and their families, and how has wellbeing increased in spite of shocks and stresses?
- **Institutional outcomes – from local community to national level:** How are people planning and acting differently as a result of BRACED?
- **Inclusive outcomes:** What change has BRACED created for women, and how have the projects promoted social inclusion?
- **Information outcomes:** How are people using climate information to anticipate risks and plan for long-term change?

By their nature, these domains are interconnected. An outcome in one domain (for instance, reliable access to water, and associated time saved) might be a precondition for another (such as women's participation in community-level decision making). As a starting point, we recognise that many of the outcomes of BRACED – from improved income to access to water – look like 'good development' at first glance. It is important to report on these outcomes for two reasons. Many project theories of change posit that addressing basic needs lays a necessary foundation for building resilience of poor people, as well as addressing the impact goal for BRACED '*for improved wellbeing of poor people despite climate extremes and disasters*'. This is also true of some of the institutional changes, which create the context necessary to trigger mechanisms that, in turn, build resilience.¹⁴

The outcomes are summarised in terms of the underlying change pathways, which help to demonstrate how the things that BRACED has achieved can be considered to be 'resilience' and the degree to which this is so, guided by the framing set out in Section 2.3 and linked to the 3As and T.

4.1 Individual and household-level outcomes

BRACED projects report evidence of a range of outcomes for individuals and households, as well as building understanding of how and why projects have contributed to this change in different contexts.

These outcomes fall into two groups.

¹⁴ The scope of the evaluation is limited to synthesis of evaluation findings from the 15 projects that form BRACED components A and B: targeting the household and community levels. However, the BRACED ToC indicates that this requires change processes at a range of scales. This synthesis looks at where change is required at a range of scales, and provides evidence of how the projects could contribute to the delayed BRACED Component D policy window: strengthening local and national government capacity.

The first group are the **result** of greater absorptive, adaptive or anticipatory capacities, but are also *intermediate outcomes* which create contextual conditions necessary for further progress toward these resilience capacities. They are:

- Increased and diversified income.
- Improved food security and dietary diversity.
- Improved access to water for food and agriculture.

The second group of outcomes are building blocks of the *pathway* or **process** toward increased resilience in that they contribute to absorptive, adaptive and anticipatory capacities. They are important outcomes in themselves but also interact to contribute to the first group of outcomes listed above. They are:

- Improvements to agricultural systems and practices.
- Improvements to livestock systems and practices.
- Access to financial services, including credit, loans and insurance.

This section examines each of these outcomes in turn. Throughout the section, (c) in the text denotes a contextual factor, (m) a mechanism, (o) an outcome and (i) intervention factors.

4.1.1 Increased and diversified income

Increases and/or diversified income at individual and household levels was a tangible outcome reported by many BRACED projects. More income in itself does not mean resilience, as many sources of income are exposed to climate variability and other shocks and stresses. In this section, we examine how these outcomes are contributing to resilience.

Key points

- Multiple projects presented evidence of increased income for project participants, and income from a greater range of sources than before the project. There was evidence of project contribution through diversification of agriculture-based livelihoods, enhancement of existing agricultural systems, and diversification into non-agricultural livelihoods.
 - Income generation tends to have a more meaningful relationship with resilience when it is underpinned by other outcomes related to financial services, access to markets, including those described in later subsections. In turn, those other outcomes can be important building blocks to resilient income.
 - Many projects targeted women in income-generating activities, as a way of sharing benefits and changing gender relationships at household level. While there is evidence of some change, a gender gap remains and, in some instances, men's income grew at a higher rate than women's over the project period.
-

Some of the outcomes related to improved income and diversification of income are presented in Table 5.

Table 5: Increases in income and diversity – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME	LINKS TO RESILIENCE CAPACITIES	STRENGTH OF EVIDENCE
Burkina Faso (BRES)	Increased income from dry season agriculture activities and livestock rearing.	Absorptive, adaptive	Medium
Ethiopia (MAR)	Increased income being used to pay for school fees.	Adaptive	Medium
Mali (RIC4REC)	21.1% of beneficiaries have improved their income. Households headed by men (56%) are more likely to experience an improvement of their income compared to female-headed households (43%).	Adaptive	Medium
Nepal (Anukulan)	Households above poverty line ¹⁵ increased from 38% at baseline to 57% at the FE (no change to control group). Average additional annual income through climate-resilient diversified livelihoods is GBP 156/household (vegetable sales: GBP 141; essential oils: GDP 172).	Absorptive, adaptive, transformative potential	High
Niger (SUR1M)	Evidence of diversification of income out of agriculture.	Absorptive	High

Projects were generally able to demonstrate the contribution that BRACED activities made to these outcomes. Weather also played a role: some project activities coincided with the 2015–16 El Niño. For some projects, subsequent increases in rainfall after a period of drought contributed to positive change, while others experienced low rainfall until shortly before the endline.¹⁶ Additional caution is also needed for quantitative increases, due to the short-time period between baseline and end-line and the limited number of cropping cycles.

The majority of BRACED project participants live in rural communities.¹⁷ Rural agricultural livelihoods are often exposed to climate shocks, as well as missing, thin or volatile markets (c). In these contexts, three major pathways contributed to increased and more diverse income. These were: diversification of agriculture-based livelihoods; enhancement of existing agricultural systems; and diversification into non-agricultural livelihoods.

¹⁵ USD 1.25 PPP/day.

¹⁶ RIC4REC FE Report.

¹⁷ With the exception of MAR (Ethiopia), Live with Water (Senegal).

Interventions to diversify agriculture-based livelihoods included expanding the range of crops grown and linking to new markets. **Market gardening** has contributed to quantified increases in income in Burkina Faso, Uganda and Nepal. In Burkina Faso and Uganda, contexts with high seasonality of rainfall, these gardens were introduced as a dry season agricultural activity that could generate income during the traditionally 'hungry' time. In Nepal (Anukulan project), communities were supported to engage in high-value (off-season) vegetable production, made possible by interventions to support irrigation throughout the year (discussed further in section 4.1.3). The Anukulan project has also supported **diversification into essential oil production, a high-value product** that farmer groups can grow on more marginal land and under forest cover and processed locally. Enhancements to existing livelihoods included the **introduction of improved seed**, as well as the work done to **improve conditions for pastoralists** in multiple countries by the Livestock Mobility project. These agriculture and livestock-related pathways are explored in detail in Sections 4.1.4 and 4.1.5.

Diversification of income included providing support to diversify away from agriculture through small business development, either as individuals or cooperatives. Where **adequate credit access** (such as through Village Savings and Loans Associations or VSLAs) and business training have been provided by the project, individuals and small groups have **developed or expanded small businesses**:

In FGDs, VSLA members spoke of the access to credit having enabled them to start up income generating activities, such as making and selling bread, tea and alcohol, or buying livestock or produce (generally sorghum) and selling in town for a profit (selling for around double the price was common)...While none of these income-generating activities are entirely new, it was clear from qualitative research that more people were doing it more often and on a larger scale because of VSLAs.

IRISS FE Report: page 35.

In Ethiopia, CIARE directly supported the creation of women's income generating groups, including cooperatives that produce and market cookstove production, moringa flour and aloe soap, and in Uganda PROGRESS has supported solar-light adoption and sales.

Projects supported positive steps toward viable income for pastoralist communities in the face of climate change.

The Livestock Mobility project worked with partners in five countries to support the viability of transhumant pastoralism in the face of climate change. Pastoralist communities depend on migration as a strategy to manage risk, but a long history of government policies and social stigma toward pastoralists is placing increasing pressure on the ability of people to migrate to ensure viability of herds.

Using comprehensive strategies that ranged from securing mobility routes within and between countries (through local agreements, national and regional policy advocacy), feed stores to offset price shocks during drought, and improved access to animal health services, the project was able to generate some evidence for improved productivity and revenue for other value chain actors along the route.

In Mali, there has been an improvement in pastoralists income thanks to reduced fluctuations in the price of livestock feed, their major expense. The ceiling price in 2016 was 30% lower than the prices reached in 2011 when the crisis led to higher feed costs. In Senegal, the cost of the food has been reduced by the proximity of the store (no transport costs).

A greater number of livestock movements were observed, compared to baseline, suggesting that people are exploiting the migration routes improved by the project.

For a pastoralist, the improvements along the migration routes are equivalent to a tarmacked highway.

Producer, Livestock Mobility Evaluation.

There is reasonable support for claims that project efforts translated into improved conditions along the routes. There was also evidence of mutual benefits with local communities and a reduction in conflict and asset loss. This is explored in more detail in Section 4.2.2.

In multiple contexts, projects have best supported income generation when they empower producers to engage with markets on better terms, and a viable volume of product is available for sale.

In Nepal, where the remote locations of villages presented a barrier to accessing markets for vegetables and essential oils (c), the Anukulan project supported participants to establish vegetable collection centres and essential oil distillation units. These organisations played a critical role in **connecting producers to buyers** (m) and had a high proportion of women in leadership roles. The project provided training on management and effective governance and connected the groups to market information to support the centres to get the best price for producers and coordinate what products to grow. In Burkina Faso, the BRES project evaluation identified the critical role that farmers' groups have played in selling dry-season produce such as onions, with many groups choosing to collectively set prices to strengthen negotiation with buyers. In contrast, cookstove producers are not yet receiving financial returns and needed more marketing support.

The first set of activities described above are still exposed to climate hazards, and **longer-term shifts in rainfall and temperature may challenge the long-term viability of any income generating activities** centred on small scale agriculture. However, they are helping people to meet immediate needs, with evidence that additional income is going to food, medical and education expenses. They may also present a **stepping stone** to other livelihood options, particularly where support is provided through business development and access to credit. There is some evidence that **income boosts adaptive capacity**, with further evidence that farmers in Nepal are using additional income to invest in 'climate-smart' agricultural practices promoted by the project. Evidence from PRESENCES suggests that **people are more likely to invest in climate-smart** activities when they have access to weather and climate information.

Where women have income that they can control, it changes household dynamics and gives women increased decision-making power. In Niger, women are now making more decisions over children's nutrition and education. These gender dynamics are explored in more depth in Section 5.3. However, there are limits: in Niger (PRESENCES) and Mali (RIC4REC) while women's income increased over the project period, men's income increased faster.

4.1.2 Improved food availability and diversity

BRACED interventions are being carried out in areas where food insecurity is high, and people were using damaging coping strategies to meet basic needs (c).

Key points

- Six BRACED FEs presented evidence of improvements to food security and nutrition, including reduction in months of food shortage, increase in dietary diversity and ability to consume preferred food, and a decline in the need for people to use harmful coping strategies to meet consumption needs.
 - Evaluations identify how a range of BRACED activities contribute to these improvements, including people's ability to both grow and purchase food. These are largely associated with pathways that increase or diversify food grown, income received, or both, as well as access to credit that can be used to buy food. Humanitarian assistance provided by the PHASE crisis modifier also assisted where shocks exceeded absorptive capacity.
 - Food security is both the result of activities that build absorptive, anticipatory and adaptive capacities, as well as being critical to wellbeing. People need to be food-secure in order to take steps toward longer-term adaptation and resilience.
-

Table 6 summarises the evidence for main food security and nutrition outcomes from the BRACED projects. While other factors, including drought and interactions by other projects may have had an influence (c), the evaluations suggest a contribution by BRACED interventions.

Table 6: Improved food availability and diversity – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	RESILIENCE CONSIDERATIONS	STRENGTH OF EVIDENCE
Burkina Faso (Changing Farming Practices)	Qualitative evidence of improved food availability and diversity due to income and surplus from market gardens.	Adaptive	Some evidence; low quality
Mali (RIC4REC)	16.5% of participants perceived that their food security had improved, with considerable variation between regions. Households experiencing at least one month of food insecurity has dropped from 56.0% at baseline to 44.6% at end-line. More than half of project-supported households reported an improvement in quality of meals, but male-headed households reported this more frequently than female-headed households.	Absorptive	Some evidence, medium quality of evidence
Mali (SUR1M)	Households experiencing moderate or severe hunger have decreased from 31% to 29.9%.	Absorptive	Some evidence, medium quality
Niger (PRESENCES)	70% decline in instances of using negative coping strategies to address food insecurity. Median number of months reported as food-secure rose from three to four over the course of the project. These changes are consistent across all implementation areas.	Absorptive Absorptive, adaptive	Strong evidence
Niger (SUR1M)	Household dietary diversity scores have increased from 5 at baseline to 5.54 at endline. Households experiencing moderate or severe hunger have decreased from 46% to 13%.	Absorptive, adaptive	Medium evidence
Nepal (Anukulan)	Overall dietary diversity has increased from 50% at baseline to 76% in FE in treatment group. The dietary diversity status in control group is at 33%.	Absorptive, adaptive	Strong evidence
Uganda (PROGRESS)	Improved food availability during the "hungry season" among 11,000 people who have constructed permagardens.	Absorptive	Some evidence
South Sudan (IRISS)	23% increase in diet diversity index between baseline and end-line.	Absorptive	Some evidence
Sudan (BRICS)	Communities in Darfur are using improved seed that increase the length of the growing season, and gardens that increase the availability and diversity of food during the dry season for participating households. Anecdotal evidence that communities using improved crop varieties were able to harvest crops in 2016 when other varieties failed because of El Niño.	Absorptive Absorptive	Weak evidence

The World Food Summit defined food security as a state where '*...all people, at all times, have physical and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life*'.¹⁸ BRACED projects are being implemented in areas where people have been unable to grow or buy enough food around the year to meet either their dietary needs, their dietary preferences, or both. During the project period, a number of climate events, including the 2015–16 El Niño, affected rainfall in BRACED countries (c). This, in turn, affected food availability.¹⁹ These events triggered humanitarian responses (c), including in BRACED project areas.

Climate change is interacting with existing pressures on food security. In the Sila Region of Eastern Chad, for instance, poor soils and seasonal rainfall variability, combined with limited opportunities to generate income, combine to create pressure on the ability of communities to meet their needs all year round.²⁰ Likewise in South Sudan and Niger, food insecurity and conflict are interlinked, with BRACED projects trying to build food security in fragile contexts.

In these contexts, there was evidence that two pathways contribute to building food security during the project period:

- Diversifying and increasing either food production, income or both.
 - And access to financial services, so that credit that could be used to buy food during lean times.
-

These pathways are strongly linked to absorptive capacity. There was also evidence that providing nutrition training to farmers' or mothers' groups and the provision of climate information (anticipatory capacity) were factors that motivated change.

Kitchen and market gardens have been supported by a number of BRACED projects and have played an important role in diversifying food production and increasing income in rural communities. In a number of Sahelian countries and Nepal, agriculture is centred on rain-fed annual cereals and grains. Not only are these cereals affected by rainfall variability, they are marked by an 'off season' where people are not involved in growing, and 'lean season' before harvest where stores are depleted (c). BRACED projects have supported individuals and farmers groups to grow vegetables as a year-round source of income. The mechanisms that lead to adoption of agricultural practices are explored in Section 4.4. These gardens are supporting people to meet food needs and have a more diverse income (o). In Nepal, Burkina Faso, Sudan and Mali, people are also selling their

¹⁸ Rome Declaration on World Food Security, 1996.

¹⁹ Silva Villanueva, P. and Sword-Daniels, V. (2017).

²⁰ BRICS FE, page 2.

produce, which can be used to buy staples (o). The uptake of vegetable gardens is occurring at scale, but these activities are still exposed to rainfall variability: water storage is often an important precondition for these activities (c).

Improved access to financial services, which is occurring at scale within BRACED projects, is also improving food availability. Baseline reports in Mali and Niger (SUR1M and PRESENCES) identified that people were using a range of detrimental coping strategies to meet consumption needs, including taking high interest loans from shops and money lenders (c). This increases risk and undermines people's ability to invest in longer-term adaptation. Various financial services, including village savings and loans groups and inventory credit (warrantage), were introduced or expanded in BRACED projects. These are allowing people to 'smooth' income in the face of shocks (m), with strong evidence from Uganda (PROGRESS) and Niger (PRESENCES) that people are using low-interest loans to buy food (m). Other financial services-related pathways are discussed in more detail in Section 4.1.6.

Linking agricultural activities to nutrition training and the provision of climate information (m) also triggered changes in behaviour (m) that contribute to food security. In Nepal (Anukulan) and Sudan (BRICS), when support for vegetable gardening is combined with nutrition training and feeding information for pregnant and lactating women in mother's groups (m), this **provides motivation** for women to grow and eat nutritious food (m). However, for Anukulan, this did not result in the intended outcome of reduced child stunting (o), potentially because not enough time had elapsed in project implementation.²¹ In Ethiopia (CIARE) and Niger (PRESENCES), evaluations established that **households using climate information were more likely to take preventative action to safeguard food security** (m) (anticipatory capacity).

The outcomes were also supported by building links across scale, linking communities to weather information and early warning, and in the case of BRICS, local clinics to a national system to support early action and surge capacity in the face of food crises. Both BRICS and PRESENCES **supported two-way information sharing about local food security with national EWS**, though it was too early to see results.

It is important to note the potential contribution of the PHASE crisis modifier, which was made available to BRACED projects operating in the Sahel from September 2015 to provide rapid response to new crises and facilitate early action. Five BRACED implementing partners used PHASE funding for humanitarian response,²² with three of the five doing so in direct response to food insecurity, with the others having a strong food security focus.

²¹ The 1% decline in child stunting in project communities at end-line was not statistically significant. Anukulan FE Report, page 32.

²² The PHASE crisis modifier operated in subnational regions within Burkina Faso (Livestock Mobility and Zaman Lebidi), Mali (DCF) and Niger (SUR1M and PRESENCES).

Food security is considered by a number of BRACED projects to be a pre-requisite from which resilience can be developed and strengthened.²³ This suggests that food security is both **the result of practices that build anticipatory and absorptive capacity** (use of climate information; low-interest credit; improved seed varieties) and an **intermediate outcome, i.e. a change in context that allows people to build longer-term resilience**. It triggers community buy-in: if farmers' immediate food needs are not met then they are not in a position to undertake other adaptation and resilience building activities. **Basic needs must be taken care of first**. This triangulates with the findings of the PHASE evaluation, which found that because food security needs were being met through the crisis response, beneficiaries could continue to participate in project activities in spite of climate-related disasters, including drought and flood.²⁴

4.1.3 Improved access to water for household use and irrigation

BRACED projects are operating in areas where rainfall variability affects availability of water for household and productive agricultural use, and existing water sources may be degraded from poor management or over-use. Six BRACED projects made investments to improve either domestic or productive water supply.

Key points

- BRACED projects have increased the volume of water stored or accessible, as well as reducing the time taken for collecting water which frees up time for other activities – especially for women.
 - Increased water storage helps households and communities to manage rainfall variability. They create a context that unlocks potential for agricultural activities and meets basic needs: important foundations for resilience.
 - However, multiple evaluations noted that it was unclear the extent to which infrastructure could withstand future changes to rainfall.
-

Outcomes reported in FEs are summarised in Table 7. Actions taken by the IPs reported to have changed the amount of water available to specific rural populations (i.e. certain villages). Data was mainly at output level, with only Anukulan, CIARE and RIC4REC providing quantitative evidence in change in water access, but not of water volume.

²³ Illustrated by the hypothesis underlying the health intervention package in the BRICS ToC: *'a healthier household is a more resilient one, and household resilience cannot be built without tackling basic issues around health and nutrition'*. BRICS MTR Report, page 14.

²⁴ Peters and Pichon (2017).

Table 7: Improved water access – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	3AS	STRENGTH OF EVIDENCE
Mali and Senegal (DCF)	Communities are managing construction of water supply and boreholes, irrigation schemes, deepening pastoral ponds and access channels to ponds or lakes.	Absorptive, adaptive	Medium
Mali (RIC4REC)	Households with access to irrigated land increased from 29.2% to 38.6% in project target areas. Access was similar for male- and female-headed households by the end of the project.	Adaptive	Medium
Nepal (Anukulan)	162 new gravity-fed/solar multiple-use water systems provide water to 19,765 households for domestic and agricultural use. Proportion of beneficiaries with water access within 30 minutes increased from 58% to 86%. While control population had similar increases, the water access has contributed to: <ul style="list-style-type: none"> • Increased income by providing water for irrigation. • Reduced workload (particularly for women) of carrying water by up to four hours per day. 	Absorptive, adaptive, transformative potential	Medium–Strong

Water access was critical for meeting basic needs and laid a foundation for further progress toward resilience.

The projects provided evidence of how water access underpinned other outcomes, including agricultural outcomes, income and food security (where water was used for irrigation and livestock activities). Changes in these secondary outcomes were not quantified (i.e. changes in yields, income, child care, morbidity, etc.). However, there was strong qualitative evidence of time saved as a result of a nearby water supply, and the availability of water for agricultural diversification (adaptive capacity).

Where gender norms mean that women play the major role in collecting water, the provision of a reliable water supply close to homes and gardens created a significant reduction in the labour burden for women.

Time saving was widespread and reported in multiple project contexts (o). This was a critical to women **participating in other project and income-generation activities**.

The MUS [water system] is instrumental in reducing water collection time and in improving irrigation uses. The time saved due to the MUS was used by the beneficiaries for vegetable farming, child care and other household works. They have saved about three to four hours a day.

Water User Committee Member in FGD, Surkhet, Nepal. Anukulan FE Report: page 17.

New technology was most effective when it was paired with work to strengthen water-management institutions – both water user groups and subnational government institutions.

In Nepal (Anukulan), Ethiopia (CIARE), Sudan (BRICS) and Burkina Faso (Zaman Lebidi), projects all helped to form or formalise village groups to manage water infrastructure (m). Anukulan and CIARE also created linkages to local authorities to improve service delivery (m-o). Community ownership and management (through involvement in site selection, construction and ongoing management), and links and ownership by local government (m) has facilitated further service delivery.

Respondents from Adegalchat shared that, once the water in their structure had been used, the government Woreda helped by filling their water structure with water from another area... The Beshade group reported that the Woreda office have supplied chlorine to aid the process of improving the quality of the water.

CIARE FE Report: page 37.

The projects did not provide information about the amount of water provided or its temporal availability, which made it difficult to determine the extent to which changes in water availability could support populations to better manage drought. The projects assisted with the management of existing water variability, however, the CIARE evaluation suggested that some water stores were depleted by drought in 2017. While DCF investments in Mali and Senegal were built to anticipate possible reductions and rainfall and floodwaters in the Niger river, the DCF evaluation noted:

Observing the impacts of these investments after the 2017 wintering season provides no basis for longer-term prediction. Indeed, it is encouraging to see that ponds are almost filled up while the lean season is upon us since they used to be dry at this time of year in the past, even if rainfall this year has fallen by almost 50% compared to a 'normal' year. However, insofar as the hydrology of the Niger Delta is directly dependent on rainfall in the sub-region, long-term projections are needed to ensure that the proposed investments will facilitate good water management regardless of any climate change over the next 10 to 15 years.

DCF FE Report: page 10.

There was no evidence that communities were using early warning information to implement water restrictions (anticipatory capacity). Evaluations noted a number of limitations, including in Ethiopia, where some participants in the CIARE project found that the distance of the infrastructure from their settlement was a barrier to its use. The water supply technologies did not dramatically reduce the exposure of users to climate hazards, and both the CIARE and

DCF project evaluations noted that the scale of shocks that the systems could absorb was not clear. In order to demonstrate resilience, investments in water infrastructure should also establish the extent to which they are risk-informed – based on scenarios of rainfall and future use.

4.1.4 Increased agricultural yield, diversity, income and sustainability

A number of BRACED projects supported successful improvements to existing agricultural systems while supporting farmer groups (including women) to diversify agricultural practices. This provides a means of increasing both income and food security.

Key points

- BRACED projects have changed agricultural techniques (including widespread adoption of conservation agriculture practices and natural resource management), created opportunities for women and men to grow a more diverse range of crops, improved access to agricultural inputs and extension services, and markets for selling produce.
- Important intervention factors include extension approaches, supporting opportunities for cooperative production, and opportunities for project participants to equitably engage with markets: both to sell their products and access products and services (such as loans, insurance and agricultural inputs).
- While there are certain activities that have increased the absorptive capacity of agricultural systems, as well as encouraging adaptation, climate change may challenge the sustainability of these outcomes and the ongoing viability of some agricultural systems. Any transformative change depends on individual or local collective motivation to invest gains from these improvements in longer-term adaptation, as projects did not seek to engage with the policy and economic dimensions of agriculture at national scale.

Of the 15 BRACED projects, 14 included interventions in agricultural production. Outcomes are provided in Table 8. With some exceptions, evidence from FE reports was often at output level. Only limited quantitative data of key metrics (including in relation to yield) was provided, and presentation of qualitative data made it difficult to ascertain the magnitude of described changes.

Table 8: Improvements to agricultural yield, diversity, income and sustainability – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	3AS	STRENGTH OF EVIDENCE
Burkina Faso (BRES)	<ul style="list-style-type: none"> • 80.2% of high intensity project households (approximately 29,123) have adopted conservation Zai practices. • Project-supported onion farms had double the yield of non-project supported farms. • Quantified increases in income for households undertaking market-gardening activities. • Evidence that soil- and water-conservation practices have resulted in quantified increases to productivity in some agricultural systems and crops. 	Adaptive	Medium
Nepal (Anukulan)	<ul style="list-style-type: none"> • 91,205 households are cultivating high-value vegetables using improved seeds and techniques. At the time of the baseline, none of these households were cultivating vegetables commercially. • Households are also producing essential oils. • Quantified increases in income as a result of these activities, which has mostly gone to women organised in cooperatives. 	Adaptive	High
Mali and Niger (SUR1M)	<ul style="list-style-type: none"> • 460,436 individuals were using project-promoted techniques at the end of the project (SMART skills, NRM, CSA, use of climate information, nutrition). • Among this group, there has been a 67% increase in people living in households that produce at least 200kg/ha of cereals. 	Absorptive, adaptive	Low
Chad (BRICS)	<ul style="list-style-type: none"> • Increase in number of climate-smart agricultural production techniques from 3.66 in 2012 to 6.61 in 2017 in Chad. • Low-medium evidence of increased food security and medium evidence of income generation. 	Adaptive	Low–Medium
South Sudan (IRISS)	<ul style="list-style-type: none"> • Increase in respondents growing leguminous plants from 46% at baseline to 75% at FE. 	Adaptive	Medium
Sudan (BRICS)	<ul style="list-style-type: none"> • A seed bank now has 5,000 KG in store, which has ensured local supply. 	Absorptive	Medium
Uganda (PROGRESS)	<ul style="list-style-type: none"> • Over 11,000 permagardens were established, despite only 3,800 farmers trained. • Uptake beyond project is the result of demonstrated increases in production, creating an incentive for other farmers to adopt the techniques. 	Adaptive	Medium

In many of the countries where BRACED is operating, degradation of soil, water and ecosystems, as well as changing market incentives are placing pressure on small-scale agricultural systems. Rainfall variability is already a challenge for farmers who depend on rain-fed agriculture, and climate change is compounding other threats (c).

In these contexts, projects encouraged **the use of a set of 'climate-smart'** agricultural techniques. In Nepal (Anukulan), Mali (RIC4REC) Chad and Sudan (BRICS), projects supported uptake of a range of strategies and technologies, through training, agricultural extension, the direct provision of tools and seed and links to private sector providers (including subsidies – addressed below) (m). Change was measured according to adoption of these practices but, apart from specific trials, **outcomes in terms of changing yield were not measured at scale.**

In contexts where agricultural land is limited (i.e. slopes in Nepal) or production is highly seasonal, projects are unlocking potential for off-season and marginal land productivity. In Burkina Faso, onion production, a dry season agricultural activity, has resulted in significant increases in income. In Nepal, farmers are now cultivating essential oil crops on marginal land, which is also yielding significant income, discussed in Section 4.1.

A link between agriculture and increased income has been strongest in Anukulan, with a focus on building market linkages between suppliers, producers and consumers. This has resulted in quantifiable increases in income for project participants. The project also linked agricultural suppliers to community business facilitators, who supported communities to access to a range of climate-smart technologies and services. The use of this value-chain approach means that agricultural improvements have extended beyond the core group of households with which the project works.

In contexts where land degradation and desertification exacerbate the ability of communities to absorb shocks, projects in Uganda (PROGRESS), Burkina Faso (Zaman Lebidi and Changing Farming Practices), Niger (SUR1M) Mali (RIC4REC) and Chad (BRICS) have **increased the uptake of conservation agriculture practices and are linking agriculture to natural resource management.** Activities linking agriculture with natural resource management are already showing benefits – in Chad, for instance, women are already selling fruit from trees grown as part of agroforestry initiatives. The benefits of other activities will take longer to realise but may help communities to absorb smaller shocks and manage incremental changes to the climate. Evidence from evaluations suggests that links between natural resource management, resilience, and wellbeing are important, as these secure the long-term resource base for productive activities. However, the links were difficult for projects to clearly demonstrate within the BRACED project timeframe.

4.1.5 Increased access to credit, savings and other financial services

BRACED projects have been effective at promoting financial inclusion, with the majority of projects facilitating access to savings, credit and other financial services for large numbers of project participants. The most common intervention has been

support to group-based savings and loans collectives (including Village Savings and Loans Associations or VLSAs), but projects have also linked participants to microfinance, online banking and insurance. Many of these activities target, or are exclusively focussed on women.

Key points

- There is strong evidence that projects are increasing access to financial services at scale, with widespread increases to savings and ability of participants to access credit.
- There is strong evidence that access to low-interest credit is being used to pay for food, education and medical expenses during times of hardship, and in some cases to recover livelihoods following disasters.
- There is more limited evidence that loans are used to invest in productive assets for livelihood activities, though some projects have performed strongly in this regard. The small size of loans has been a limiting factor in these cases. Group-based savings and loans have additional outcomes, including increased solidarity and social capital among members, and supporting financial literacy and the economic empowerment of women.

This section is structured in two parts: an examination of community-level VSLAs and associated entities, and a section on the links that BRACED projects have built between bigger financial services and insurance providers and communities. It ends with a deeper examination of the resilience contribution of these outcomes.

Projects were able to demonstrate strong evidence of mechanisms and intervention factors and links to resilience outcomes. Both VSLA and other financial services have given individuals and communities a new tool to manage risks. There is clear evidence from multiple countries that savings and loans can be used to support consumption and other critical expenses during 'lean' periods. Contingency and social funds embedded in VSLAs are another tool for managing risks. In the future, the weather-indexed insurance may also be an important product that can support pastoralists to access payments based on seasonal forecasts.

In contexts where financial inclusion is low, VSLAs are an effective entry point to build financial literacy.

In many of the countries where BRACED works, financial inclusion is low. A high proportion of adults are without bank accounts and are unable to access affordable credit and insurance products.²⁵ Women are less likely to hold a bank account than men. In these contexts, households are often forced to sell assets to cope with shocks, or take out high-risk, high-interest credit from money lenders or stores to meet consumption needs.

In these contexts, BRACED projects have been effective in establishing and/or supporting large numbers of VSLAs and other micro-credit groups. These are small, self-managed groups that provide a safe place for members to save money and access loans and other services, including crisis contingencies. In many BRACED projects, these groups targeted women, while others involved men. Project end-line surveys and monitoring systems have provided evidence of these changes. It is worth noting that the gains are particularly striking in the context of South Sudan, given the deterioration in the country context over the 3-year project implementation period.

Table 9: Local savings and loans – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	3AS	STRENGTH OF EVIDENCE
Ethiopia (MAR)	342 VSLA groups created and strengthened, with 6,284 participants (mostly women). 10 VSLA groups have 'graduated' to become SACCOs. VSLAs and SACCOs have total savings of GBP 81,000 (average GBP 230 per group) and have disbursed approx. GBP 54,906 in loans to members.	Absorptive	High
Ethiopia (CIARE)	50 savings and credit cooperatives with 5,205 members (4,752 women).	Absorptive	High
Kenya and Uganda (PROGRESS)	In Kenya and Uganda, 4,577 (M=1,302, F=3,275) people were participating in PROGRESS project-supported VSLAs. 72% of loans were provided to women.	Absorptive	High
Myanmar (Myanmar Alliance)	VSLA/SHG investment in target areas has grown by almost 500% over two years.	Absorptive	High
Niger (PRESENCES)	Total amount of savings increased by 60% in project target areas.	Absorptive	High
Niger (SUR1M)	53,578 Active members of Savings and Internal Lending Communities (78.5% women) with a total loan value of \$142,680.	Absorptive	High
South Sudan (IRISS)	38 VSLAs in operation in project target areas. 56% of end-line respondents reported having savings, compared to 22% at baseline, despite a broader, substantial deterioration in peace and security.	Absorptive	High

²⁵ Haworth, A. *et al.* (2016).

BRACED projects have supported VSLAs through group formation (or extending VSLAs to existing groups, i.e. farmer groups), training on organisational management and basic accounting, and providing necessary materials (safe boxes, ledger books and other equipment). Important intervention factors to group success include: the frequency of training and staff engagement (CIARE) as well as supporting links to other income-generating opportunities. For instance, Anukulan introduced savings and loans to existing farmers' groups, and CIARE, MAR and Myanmar Alliance linked women-led groups with income-generating opportunities and provided broader business training. Projects differed on whether to be 'women only' or include men. Some projects provided initial capital to the groups, others did not.

VSLAs have been credited with changing behaviour and fostering a 'saving culture' in a number of projects (IRISS, MAR, Myanmar Alliance, CIARE).

There is strong evidence that VSLA groups contribute to absorptive capacity, with people able to access savings and concessional credit to manage downturns in food production and income.

There is strong evidence that participants are using the low-interest credit to pay for key expenses as discussed in Sections 4.1 and 4.2. In Kenya, Ethiopia and Niger, project monitoring from the MAR, PRESENCES, PROGRESS, and SUR1M projects identified drops in incidence of savings and increase in loans during periods of low rainfall, suggesting an income-smoothing role during times of food shortages. In regions with cyclical food insecurity, access to savings and loans are therefore likely to be a mechanism for building food security: the PRESENCES project end-line evaluation identified a significant correlation between rates of saving and food security in Tillabery province, with over 65% of loans used to purchase food. In Nepal, women in farmers' groups accessed credit to recover livelihoods following a flood. Some of the groups included a specific no-interest social fund for dealing with disasters and meeting school and medical expenses. No comparative evidence was available as to the impact a social fund has on how VSLA groups affect absorptive capacity, however where such funds existed they were highly valued by group members.

The SUR1M impact evaluation provides additional evidence that access to financial services, including group-based schemes, is likely to move participants from higher to lower risk coping strategies in Niger. In the study, participants in treatment groups were likely to depend on loans for a significantly shorter time than control groups. Participants were more likely to borrow from friends, family and community saving groups, whereas treatment groups were more likely to borrow from money lenders or take out credit from shop owners, a far higher risk strategy that exposes them to high interest rates.

While VLSA credit may be invested in adaptation, the size of loans may be too small to significantly build adaptive capacity.

There are numerous instances of VSLA groups supporting small changes in agriculture and livelihoods which may support adaptive capacity. In PRESENCES, providing climate information to VSLA groups has helped groups make risk-informed decisions about investments. However, evidence from PRESENCES suggests a mismatch between the expectations of the programme design (that VSLA loans support investment in adaptation) and the reality that the majority of loans are used to purchase food and meet other immediate needs. The Anukulan project has hypothesised that inadequate finance is a barrier to farmers investing in adaptation – suggesting that loan size affects adaptive capacity (c-m). This is being addressed by the extension phase. The MAR project evaluation also suggests that the average saving of GBP 1–3 a month is unlikely to be enough for dealing with large weather shocks, and that VSLA members will continue to need to be linked to income-generating activities.

The group-based structure of VSLA provides additional benefits, including women's empowerment. These benefits are most evident when VSLA groups are linked to existing activities.

There were also strong interconnections between VSLAs and other interventions, with findings supporting other evidence that VSLA usually brings larger effects when used as a platform for other interventions, including gender empowerment, business training.²⁶

Increased social cohesion among group members was also reported because of the roles they play in supporting each other. In PROGRESS, this cohesion has been supported by the establishment of Whatsapp groups to support group communication. A number of groups are a platform for other income-generating activities, including training on agriculture and small business development. For example, one women-only farmers' group in Nepal supported by Anukulan used credit from the group to start greenhouse-based vegetable production and repaid the loan using income from the vegetable sales. Women's VLSAs in Ethiopia have used loans to start income-generating activities including cook-stove manufacture and sales, opening stores and rearing livestock. Many groups are deliberately women-only, and the combination of women being able to generate income, access credit and have improved financial literacy, have played a role in shifting gender norms at household level. This also creates a space for women to build mutual support and discuss important issues (PROGRESS, PRESENCES, RIC4REC).

BRACED projects have worked with financial services providers to develop products and services that meet the needs of pastoralist and agro-pastoralist communities.

²⁶ Haworth, A. *et al.* (2016).

Both PROGRESS and MAR are working with microfinance providers to develop microfinance products, MAR is additionally supporting MFIs to provide mobile banking and insurance products that are tailored to the needs of project participants in their contexts. This included transhumant pastoralists, many of whom are Muslims. Existing financial products have not been suitable as they were not Sharia-compliant, and the low population density and large distances covered by pastoralist communities have also created logistical barriers for microfinance companies. In Ethiopia, trust in banks is low, as people have previously lost money with banks, and existing banks lacked capacity to reach pastoralists and to develop mobile banking products that meet the needs of pastoralists.

Table 10: Financial services – reported outcomes

COUNTRY (PROJECT)	REPORTED OUTCOME	3AS	STRENGTH OF EVIDENCE
Ethiopia (MAR)	<p>Microfinance providers have extended into three new regions of Ethiopia.</p> <p>4,211 people have received loans with an average size of GBP 112 per person.</p> <p>Loans have been used to support livestock-related businesses, diversify income into petty trade, and to cultivate land.</p> <p>Two new insurance products are available to pastoralists.</p>	Absorptive, adaptive, anticipatory	Strong
Kenya (PROGRESS)	<p>Crescent Takaful SACCO had 1,485 project participants as members, distributing 140 loans.</p> <p>Many of these loans are being used to establish new businesses, and individuals are able to access interest-free loans for school or medical bills.</p>	Absorptive, adaptive	Strong

PROGRESS and MAR have played brokering roles to extend financial services into project areas. PROGRESS worked with Crescent Takaful SACCO (CTS) to extend their sharia-compliant financial services into Wajir County, Kenya. Similarly, MAR has worked with three microfinance providers to extend services to pastoralists in three regions of Ethiopia. Training and support from the project teams supported microfinance institutions to develop a product that met the specific needs of transhumant pastoralist and agro-pastoralist communities and meant that participants understood the products and how they could support other strategies for building resilience. Both PROGRESS and MAR provided loan guarantees and/or shared the initial risk to the providers entering a market.

There was rapid uptake of the services in both countries. The loans offered are much larger than those available through VSLA. People used loans to expand existing businesses or diversify into new areas. In Ethiopia, this has included the purchase, fattening and sale of livestock and poultry, renting oxen to cultivate land, and engage in trade and small business development. The evaluations found that trust was an important mechanism, as people trusted the sharia-compliant financial services which they knew would not compromise their religious beliefs. In Kenya, the ability to get interest-free loans for school fees and medical expenses was an important incentive, as was the ability to save small amounts at a time. In Ethiopia, MAR linked the providers to existing VSLA groups in the first instance, which connected the providers to an engaged market with levels of financial literacy. Business training provided by the project was also critical to ensuring that people were willing to engage with the risks involved in taking loans. MAR also worked with influencers (including students' project) to encourage uptake.

In Ethiopia, MAR has also supported the companies to develop sharia-compliant savings and insurance products, targeted at pastoralists: 3,631 people are using the mobile banking services, including large numbers of Somali mobile pastoralists. People using the service are able to save via a network of agents who act as brokers between remote communities and the MFI, and also have a means of receiving remittances – a crucial factor in supporting resilience. The insurance products were launched shortly before the end-line, making it too early to get evidence of outcomes.

[More research is needed to understand the limits to financial services as a resilience-building tool, and their robustness in times of shocks and stress.](#)

Despite the widespread uptake of VSLA and formal financial services, and the evidence of how they support resilience, a number of FEs acknowledge the limits of these activities in the face of shocks or change.

VSLAs have proven to be robust in a number of contexts, including in South Sudan (IRISS project) where groups have worked out how to manage interest rates and maintain savings in spite of hyperinflation, and in Ethiopia (MAR project) where women in transhumant pastoral communities have kept up group meetings and loan repayments in spite of the fact that they have had to disperse to manage the impacts of drought.

However, the MAR evaluation noted that it is unlikely that the VSLA groups will provide adequate credit for people to manage large-scale shocks that affect the whole community. Furthermore, there was limited evidence of how people were managing the risk involved in taking bigger loans in Ethiopia and Kenya. Further evidence is needed to understand how third-party providers and customers will respond in the face of a significant climate shock.

4.2 Institutional change

This section looks at the range of institutional changes that BRACED has contributed to at local and national levels. It includes climate risk within local planning, local organisations that can implement resilience activities and respond to disasters, and agreements around land tenure and resource use that are reducing conflict. It also includes actions to influence national policy and build capacity to govern adaptation.

These institutional changes support the individual and household change outlined in Section 4.1. They are critical to the context necessary for building anticipatory, adaptive and absorptive capacities. They also create potential for transformation, including generating impact at scale, and shifting power relationships to enable inclusive, risk-informed decision-making processes that involve women, and disadvantaged and marginalised groups.

4.2.1 At local level, institutions have the capacity to plan and manage adaptation actions

The majority of BRACED projects have undertaken local and municipal planning processes for disaster risk management and climate change adaptation. These include supporting local agencies to complete plans mandated by government law or developing plans that can be integrated into local planning and budget processes.

Outcomes in this area are widespread, with Anukulan, DCF, MAR, Myanmar Alliance, PROGRESS, PRESENCES, RIC4REC and Zaman Lebidi all reporting outcomes in this area. Planning is a 'process outcome' but has tangible benefits in terms of increased local preparedness for climate extremes and disasters (anticipatory capacity). Plans are also assisting with the mobilisation of funds (adaptive capacity and transformative potential).

Table 11: Local institutions – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	3AS	STRENGTH OF EVIDENCE
Ethiopia (MAR)	Municipal green plans complete in 12 townships in three regions. Strengthened relationships between government and communities.	Anticipatory, absorptive and adaptive	Medium
Mali (DCF)	A communal adaptation committee, and three cercle (local)-level monitoring committees are functioning. The communal adaptation committee assessed 727 proposals for investment (proposed by community-based organisations), selecting 72 for implementation by the project. Increased effectiveness and accountability between local government and communities.	Adaptive	Medium
Myanmar (Myanmar Alliance)	Community resilience plans completed in 150 locations.	Anticipatory, absorptive and adaptive	Medium
Nepal (Anukulan)	86 harmonised local adaptation and disaster risk management plans, in areas with a combined population on 1,496,000. 12 early warning systems are established.	Anticipatory, absorptive and adaptive	Medium
Niger and Mali (SUR1M)	19 communal development plans updated, with integration of the climate change, disaster risk reduction and gender dimension. 128 DRR Community Action Plans developed.	Anticipatory, absorptive and adaptive	High
Senegal (DCF)	Regional and departmental adaptation committees are functioning. The committees selected and are implementing 65 investments. All 37 local authorities in the area submitted proposals and are implementing at least one project, and departmental councils are implementing five. More cooperative relationships between governments (both elected officials and government staff) and communities.	Adaptive Transformative potential	Medium

BRACED projects have completed resilience and adaptation planning at scale (beyond target project participants) breaking down silos and improving relationships between responsible agencies.

BRACED projects have played a facilitating or convening role in local-level planning, bringing together communities and government line departments at different levels. Projects have engaged with government decentralisation processes: as power and budget are devolved to local areas, BRACED projects have worked to make sure that resourcing is secured.

In Nepal, where different national government agencies are responsible for adaptation and disaster risk reduction (DRR), different agencies required the use of different local planning frameworks (c). Anukulan developed a seven-step process that harmonised elements of the local adaptation and disaster risk management planning process, rolling it out at village and municipality levels. This resulted in the completion of 86 harmonised adaptation and disaster risk management plans in local areas with a combined population of 1,496,000 (o). The planning process **strengthened coordination between different actors** (m) which supported resource mobilisation described below. However, a lack of focus on national government policy meant that this harmonised approach wasn't adopted at the national government level, discussed in more detail in Section 4.2.3.

BRACED projects have strengthened local institutions and mobilised resources for adaptation, and in doing so strengthened relationships and accountability between governments and communities.

In many countries, BRACED projects are being implemented in parallel with processes of decentralisation, creating important opportunities to connect work at community level to subnational government planning. However, this devolution of power to local actors is not always resourced (c) and in many cases, while local governments may have the desire to strengthen service delivery to local communities, they lack human and financial resources.

In this context, projects are making significant inroads to strengthening existing local institutions and creating new ones to manage the impacts of climate change.

The most significant institutional investment has been in Mali and Senegal under the DCF project, with the underlying hypothesis that *'supporting local authority partners to set up and manage decentralised climate funds will allow local communities to access resources and have clear decision-making power over how these funds are used'*. The project has established Communal and Cercle Adaptation Committees (CCAs), which have managed multiple cycles of funding for adaptation projects, from selecting and facilitating consultation on proposals to overseeing implementation. The structure and resourcing established by the project create strong motivations for local authorities to participate. Establishing regional monitoring committees, comprising government and non-government committees, which review proposals and implementation, creates an important accountability mechanism which was trialled for the project. This subnational demonstration of effective local structures to manage adaptation funds has been paired with significant investment in national-level agencies **with responsibility for climate finance**, creating **links across scale**. It is expected that these institutions will be able to implement adaptation investments into the future.

In Kenya, where mechanisms for decentralised adaptation funding are already operating in five pilot counties, the PROGRESS project has provided similar support to Ward Adaptation Planning Committees (WAPCs). The project aimed to demonstrate a model that was scalable within and beyond the county, with the FE noting:

Because of the county climate adaptation funds, the WAPCs are sustainable, and with adoption by NEMA, they are scalable and will likely be replicated by government in the surrounding counties in the coming years.

PROGRESS FE Report: page 24.

In Mali, the RIC4REC project has channelled funds of up to GBP 1,400 to Community Working Groups (CWGs) in each commune to implement priority actions from community resilience plans. 271 communities have chosen to create a revolving fund from this initial money, and the majority of communes are in their second round of funding, with some in their third or fourth round. The CWGs are now making investment decisions without project support and consider how benefits from each round are spread to different community members.

Projects have also successfully used planning activities and project funding to leverage additional resources. Project resources provided a motivation for local governments to engage in community-centred adaptation planning (m), which engagement in turn strengthened the relationships between government and communities (m-o). A combination of stronger community institutions, strengthened relationships, and clear adaptation plans means that communities, with support from BRACED, are lobbying subnational government for funds to implement their plans. In Nepal, Anukulan is supporting the integration of Local Adaptation Plans for Action (LAPA) into periodic development plans of Village, Municipality and District Development Committees (VMDDCs). Project monitoring data identifies that the project has leveraged funds to a value of GBP 36,288 from the government, which, alongside project funds, was used to implement the plans. With the support of RIC4REC, town councils in Mali are using the resilience plans to advocate for external funding of their five-year development plan called PDESC in French. This has been effective when the planning has been linked to existing process of decentralisation and local government priorities.

Women are more likely to participate in planning processes when they feel that they will be listened to.

There has also been significant attention paid to the involvement of women in the planning process, and attention to actions that will benefit women. This has included requirements for gender balance within planning processes and meetings, and in some cases (RIC4REC, DCF) a requirement that any priorities funded by the project have tangible benefits for women. In DCF, the genuine

commitment to this process meant that women became increasingly vocal, when they realised that their priorities were going to be taken seriously, rather than being given lip service or later overridden. The participation of women has had a broader impact on attitudes toward women – it was noted that one community in Uganda now require at least 1/3 of women at all local meetings to reach a quorum. Some of these dynamics are discussed in more detail in Section 4.3.

4.2.2 Land tenure and natural resource management agreements are securing livelihoods

Secure access to livelihoods resource plays an important role in supporting resilience, as does protection of ecosystems that people depend on for livelihoods and wellbeing. Conversely, conflict over land ownership and use, as well as resource degradation have the potential to undermine community resilience. A number of BRACED projects have achieved significant progress in this area.

Table 12: Agreements securing land tenure and natural resource management – reported outcomes

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	RESILIENCE CAPACITIES	STRENGTH OF EVIDENCE
Ethiopia (MAR)	Agreement and management for woodland area secured.	Adaptive, transformative potential	Strong
Multi-country (Livestock Mobility)	Land use agreements in place for 2,868 km of livestock migration corridors.	Absorptive, adaptive, transformative potential	Medium

The Livestock Mobility and MAR projects have achieved outcomes formalising management and access arrangements for key ecosystems and livelihood resources. In both operating contexts, transhumant pastoralists and settled farmers co-exist in the same areas. In some cases, disputes over land use can result in conflict and loss of livelihood assets.

Key factors to securing these agreements included participatory and **GIS-based mapping as well as marking to delineate key areas for different land use**. This combined with an extensive process of dialogue with community members, traditional leaders and land owners through a series of 'constructive debates', which were designed to facilitate mutual understanding and trust – helping different land users see different points of view. The Livestock Mobility project has facilitated the negotiation of 145 agreements over land use across the five counties where the project operates, which have created 2,768 km of livestock corridor that pastoralists can use for migration and grazing. In Ethiopia, the MAR project has facilitated the development of a management plan for a woodland area with delineation of areas for grass production, livestock feeding and vegetable production. Internal by-laws have been developed and approved

by the community for implementation. Both projects also created incentives for agreement.

In MAR, the establishment and strengthening of the participatory forest management committee included supporting its registration as a legal entity. Capacity-building training given to committee members helped to improve awareness of the community on how to manage natural forest. Farmers also received farm tools as part of the support from the project. After a series of community consultations, an agreement was reached with the community to delineate the area. Internal by-laws have been developed and approved by the community for implementation. This contributes to the protection of generated assets within the watershed by punishment for violation of the community rules. A limitation identified in the evaluation for Livestock Mobility noted, however, that women's participation was not strong, in part because of the attitudes of staff in partner organisations and the lack of a project-wide gender strategy.

RIC4REC, DCF, SUR1M, PROGRESS and Changing Farming Practices/BRES took specific steps to raise awareness about land tenure, and **secure land tenure for agricultural activities**, including for those led by women. PROGRESS trained women's advocates on land rights and inheritance, and conducted land awareness events and legal aid clinics, highlighting land rights for communities. Secure land tenure created the conditions necessary for people to invest in climate-smart agricultural activities. Making land available to women's farmer groups has also been a key step to improving women's control over productive assets. SUR1M has engaged farmers in Mali and Niger in the process of obtaining formalised land tenure for productive use. This has included land lease negotiations, full titles, or charters that secure land use rights for livestock farmers.

Barriers have included a 'policy gap' in the ability to register land rights in Burkina Faso, in that a new Act has been introduced but is not yet operational.²⁷ The Changing Farming Practices project worked around these by negotiating agreements between farmers' groups, private land owners and village chiefs.

4.2.3 Changes in national policy and institutions

A critical pathway in the BRACED ToC is the linking of community resilience with national-level policy change that creates an inclusive enabling environment for adaptation and reduce some of the structural causes of vulnerability. This influence, particularly where it involves shifts of power, creates potential for transformation.

²⁷ Changing Farming Practices FE Report, page 18.

Key points

- Some IPs have contributed to changing the national policy context, as a result of an active strategy for national government engagement through 'insider' capacity development and cultivation of 'resilience champions' within government.
- Despite the emphasis of the BRACED ToC on linking change from the local level to national connections, relatively few BRACED IPs have provided evidence of outcomes for national-level policy influence. A lack of coherent strategy linking subnational activities to national policy influence may be a barrier to sustainability.

IPs contributed to this change by providing capacity support to government agencies, resourcing respected national civil society organisations, and supporting 'resilience champions' in national government.

Table 13: National-level change – reported outcomes

COUNTRY	EVIDENCE OF OUTCOME REPORTED	RESILIENCE CAPACITIES	STRENGTH OF EVIDENCE
Ethiopia (MAR)	Private sector actors have increased awareness of socially and environmentally responsible investment and national laws. Steps toward a strengthened Ethiopian Horticulture and Agricultural Investment Authority (EHAIA).	Transformative potential	Medium
Mali (DCF)	ANICT, the national agency responsible for local government investment, has been selected as the national accredited entity to the GCF and has submitted accreditation outcomes. ANICT has a gender policy in place. The evaluation anticipates that subnational institutions established by the project will be used to disburse GCF finance at local level.	Adaptive; Transformative potential	High
Senegal (DCF)	Climate change has been integrated into the National Planning Guidelines. The National Treasury is disbursing project funds for local adaptation investments.	Adaptive; Transformative potential	High
South Sudan (IRISS)	The First State of the Environment Report for South Sudan developed and endorsed by the government. The National Ministry of General Education adopted a curriculum for School Environment Clubs developed in 17 pilot schools under IRISS. A draft Strategy on Meteorology is developed with the Department of Meteorology.	Adaptive	Medium

A limited number of implementing partners (Anukulan, DCF, BRICS, IRISS, MAR and Livestock Mobility) discussed engagement with national-level institutions, and steps to influence policy. **BRACED projects have approached advocacy and influence using 'insider track' approaches to influence**, focussed on influence through good relationships with government powerholders instead of strategies for building and wielding the power of civil society. In part, this is shaped by contexts where civil society has limited space, governments are wary of advocacy, and international NGOs have to carefully manage risks to their ability to operate.

Where BRACED projects contributed resources into government agencies toward shared objectives, capacity development was an important strategy for achieving impact beyond BRACED project areas.

In Mali and Senegal, in the context of devolution of powers for planning and infrastructure development, the DCF project combined efforts to establish subnational institutions with activities that strengthened national government capacity to channel funding for local adaptation activities. In Mali, this involved providing dedicated support to ANICT, the agency responsible for local government investment. The project supported the agency to prepare for accreditation to the Green Climate Fund by providing staff capacity to the agency and resources for a detailed audit in order to change certain aspects of the institution, including a complete reorganisation of the Budget Management and Monitoring Department. In Senegal, the project developed resilience considerations which are now integrated into the National Planning Guidelines. Both agencies have also developed gender strategies with project support.

In Ethiopia, where some foreign agricultural investment is having negative effects on communities and ecosystems and undermining people's ability to build resilience, MAR is collaborating with the Ethiopian Horticulture and Agricultural Investment Authority (EHAIA). Activities have included research and the development of a framework to strengthen links between investors, communities and the EHAIA, as well as a series of workshops. It is too early to see tangible outcomes, though there is some early evidence of change in understanding and social responsible investing amongst investors after training.

Other important strategies for influence include partnership with respected national civil society organisations and cultivating government 'champions' for adaptation and DRR.

In Senegal, for instance, DCF activities were led by IED Afrique. IED already had a strong national reputation and established relationships in Senegalese politics and government (c). The IRISS project engaged with the Sudd Institute for research and advocacy activities, and cultivated champions by funding three Sudanese government staff from Sudan to attend COP 22, the 2016 UN Climate Change Conference, which opened space to collaborate on the Sudanese DRR policy. Supporting policy platforms in Chad meant that BRICS was requested to provide inputs to the National Environment Policy. In both cases, these strategies created openings for influence because of the trust they created (m).

In Myanmar, the critical mass of NGOs working on resilience and the various national forums organised by the project have ensured that resilience is firmly on the national agenda: the 2016 Myanmar National Framework for Community Disaster Resilience made reference to the resilience definition developed and promoted by BRACED Myanmar.

With notable exceptions, a lack of strategy for national policy influence is a barrier to the transformative potential of BRACED projects.

The DCF project demonstrates significant transformative potential, as it is effectively linking institutional structures that could channel finance from a sustainable source – the Green Climate Fund – through national structures to the local level. However, few other projects were able to demonstrate the same potential, though the evaluation noted risks in putting all of the projects eggs in one basket, along the lines of '*Plan A has to work because there is no Plan B*'. Although a larger number of projects had some national policy engagement, multiple evaluations noted that this national-level work lacked a strategy and resourcing for national advocacy and policy influence.²⁸

Barriers included late recruitment of key staff and the short implementation period, which means that some gains may not be brought to fruition. For instance, while BRICS has coordinated with other NGOs in Sudan to advance the national DRR strategy, the extent to which Concern can sustain momentum after the project implementation remains to be seen. Similarly, there are question marks as to the extent the work of MAR can be sustained by the EHAIA, which is currently chronically understaffed. In Nepal, the separation of DRR and climate change in two line ministries means that 'intense lobbying' is required to make headway for national adoption of the Anukulan project approach of harmonising the LAPA and Local Disaster Risk Management Plans (LDRMPs). Anukulan was also blindsided by restructuring of subnational government structures that the project was seeking to influence, as the country is going through a federalisation process.

The lack of attention to national government influencing can also be explained by delays in BRACED Component D as many BRACED projects were waiting for this policy window.²⁹ While Component D is being (partially) implemented under a BRACED extension ("BRACED-X") policy window, the short timeframe (one year and a half) raises questions of meaningful national-level change. Further, funding for IPs' policy window work under BRACED extension is just £2.5 million (compared to the originally intended £30 million for component D policy window, and compared to the £16 million funding for implementation under BRACED extension so the scope will be substantially less than originally expected at the outset of BRACED.³⁰

²⁸ Zaman Lebidi Final Evaluation; Anukulan Final Evaluation.

²⁹ DFID are funding further policy work led by FM as part of Component D work in the extension (D2 – national policy dialogues).

³⁰ Fund Manager BRACED-X Guidelines 2018.

4.3 Inclusion: outcomes for women and gender equality

Addressing various forms of social inequality and exclusion is an implicit focus within the BRACED ToC. Inclusion is a development outcome that both supports, and is supported by, resilience. The majority of projects have at least some focus on ensuring equitable benefits and reaching vulnerable groups, but a smaller number have specific goals related to tackling the root causes of exclusion. The strongest evidence of change is centred around gender and women's empowerment, which is the focus of this section. BRACED projects and their evaluations were largely marked by a lack of disaggregation by age, gender, disability and other forms of disadvantage and social exclusion. The BRACED FEs were notably blind to disability inclusion, with no projects mentioning deliberate action to promote inclusion for people with disabilities.

Multiple BRACED projects have an explicit or implicit focus on gender and women's empowerment, ranging from steps to ensure that women benefit equitably from BRACED project activities, to specific outcomes related to gender and women's status in households and communities and addressing the root cause of inequality. Gender equality goes beyond incremental improvements to women's lives to broader transformation of relationships between women and men, the position of women in society, and women's control over assets and resources.

For the purpose of this analysis, we will look at how change within BRACED has manifested at two levels: (a) for individuals and (b) through the institutions and structures that shape women's lives.

Key points

- Women are benefiting from BRACED project activities. From improved access to climate information and services to increased income, BRACED projects have increased the wellbeing of women, increased time available to participate in community affairs, and, in some cases, changed gender dynamics and decision-making power within households.
 - BRACED projects are increasing the participation of women in community affairs, changing attitudes and behaviours related to gender among both women and men, and structurally embedding gender equality within local institutions and national frameworks to build resilience.
 - These domains of change are not mutually independent and are more likely to make a sustained difference in the three projects (DCF, BRICS and PROGRESS) that are taking a strategic approach, 'layering and linking' activities at multiple entry points (with both women and men) to shift attitudes, behaviours and institutional structures.
 - Despite a strong equity argument and an implicit focus on gender and inclusion within BRACED, projects need to get better at articulating the link between gender equality, resilience and adaptation to climate extremes and disasters.
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Based on the guidance provided to IPs, the majority of FE reports included some analysis on how benefits from BRACED were shared between women and men. However, sex-disaggregated data was limited, as was analysis of more significant shifts, such as changes to institutional structures and power relationships that shape women's lives. Nonetheless, analysis of gender outcomes provides important insights into how these contribute to resilience, and key mechanisms for bringing about these shifts.

Table 14: Change in gender and women's empowerment – reported outcomes for individuals

COUNTRY (PROJECT)	EVIDENCE OF OUTCOME REPORTED	3AS AND T	STRENGTH OF EVIDENCE
Burkina Faso (Zaman Lebidi)	Women have increased decision-making authority over household expenses. Women have a greater sense of dignity and feelings of integration into the community's social fabric (participation into weddings, funerals, baptisms).	Transformative potential	Medium
Mali (RIC4REC & DCF)	Women have access to credit and income. Women have more say in household decisions as they have access to financial resources. Women have increased access to irrigated land.	Adaptive, transformative potential	Medium
Ethiopia (CIARE)	Increased women's influence on household decisions linked to food consumption, health and schooling.	Adaptive, transformative potential	Low
Kenya (PROGRESS)	Girls have become more assertive, understand their rights and know where to report gender crimes or rape. Assertiveness and changing cultural norms have contributed to deterring harmful cultural practices such as child marriage.	Adaptive, transformative potential	Medium
Chad (BRICS)	In Chad, men have improved understanding of women's workload and have started to undertake domestic chores.	Transformative potential	Low
Sudan (BRICS)	Women have increased confidence. Men are assisting women with the collection of firewood and other small steps toward greater responsibility.	Transformative potential	Low

A number of BRACED projects have focused on supporting women to participate in income-generating activities, as a vehicle to greater gender equality through access to resources and changes to attitudes.

In a number of BRACED implementation contexts, women have experienced a number of barriers to participating in income generation, as well as broader community decision making (c). Social norms mean that women are overwhelmingly responsible for household responsibilities, including collecting water and firewood, collecting and preparing food, looking after children and collecting water. In a similar light, income generation is not seen as women's role within the family. In some rural contexts, BRACED projects have also worked with women who remained in communities where economic migration, conflict and other drivers meant a high number of female-headed households.

Projects have supported change by targeting income-generating opportunities that target women. BRACED projects have established women-only and women-centred farming groups, business groups, and savings and loans groups. **Women have also been targeted with training and grants.** For instance, in Mali, RIC4REC defined beneficiary criteria (including for female heads of households) for grants. In Nepal, Anukulan set targets for women's participation in farmers' groups, and multiple projects have established women-only VSLAs. In BRICS and PROGRESS, this has been combined with discussion with women and men about gender norms and household responsibilities.

There is evidence that **increased income and associated activities can change women's relationships and status at household and community levels.** Qualitative data from multiple projects has suggested that income and additional resources that they control have given women **greater control over decisions at household level**, and resources to invest in **adaptation and income-related activities.**

In Mali, the RIC4REC targeting strategy resulted in women having **greater access to irrigated land**, with the project end-line indicating that women's access is increasing faster than men's. Likewise, in contexts where women do not have title over land, multiple projects worked to **broker land use agreements and formalise tenure arrangements.**

Working to shift men's attitudes was critical to building gender equality, as well as linking gender activities to other tangible benefits.

FEs noted a range of mechanisms that supported gender equality. In conservative communities, these include using income-generating activities which are considered 'socially acceptable' for women as an entry point, before taking steps to change (RIC4REC, PRESENCES). In regions of Kenya, Uganda (PROGRESS), Chad and Sudan (BRICS), training and dialogue with groups of men have changed attitudes of men (m), building their support for women to participate in project activities (m).

In contexts where deeply ingrained norms shape domestic and productive responsibilities and activities, time and labour saving resulting from other activities underpinned women's involvement in project activities (see, in particular, Section 4.1.3). In Chad, Sudan, Kenya and Ethiopia, men are taking on a greater share of domestic labour and caring responsibilities, which in turn can enable women's participation in project-supported activities.

This was reported by both BRICS and PROGRESS, which had developed an explicit strategy with working with both men and women to facilitate discussions that challenge gender norms. These discussions resulted in men realising the unequal balance of work in the household, with peer support also playing a role in changing men's behaviour.

All-male platforms also served as a valuable activity to change men's attitudes about gender issues and harmful masculine practices and ideas. Male-only platforms were led by facilitators who are considered to be 'gender champions'. At the platforms, men held debates on gender roles and men's contribution to those roles and ending sexual and gender-based violence (SGBV) in the community. The focus group discussion with an all-male platform in Matany showed a group of men who are enthusiastic about their changed perceptions of masculinity. They claim to understand their role in the household better and understand the unequal level of work that their wives had previously taken on in the house.

PROGRESS FE Report: page 35.

These discussions and debates were best received in settings that provided participants with additional benefits: for instance, when young women and men's platforms were linked to income generation or other services, such as VSLA.

Evaluations also noted a number of barriers and limitations to household-level change, including in relation to income. The PRESENCES evaluation identified that, despite staff and beneficiary perception of positive changes in the income of women, men's income had increased more rapidly than women's over the course of the project.

Table 15: Change in gender and women's empowerment – reported institutional outcomes

COUNTRY (PROJECT)	REPORTED OUTCOME	BAS AND T	STRENGTH OF EVIDENCE
Chad (BRICS)	The number of women reporting participation in community decision making increased from 58% to 74%.	Transformative potential	Medium–High
Kenya (PROGRESS)	<p>A gender desk and technical working group has been established in the Wajir county government, including a hotline providing advice and police referrals for survivors of rape, sexual and gender-based violence.</p> <p>In 2017, over 1,050 cases of sexual and gender-based violence were reported, resulting in 31 prosecutions. This increased from very low levels of reporting and no prosecutions in 2015.</p> <p>Health workers and police are providing care for sexual assault survivors.</p> <p>Eight women ran for election in Wajir country, where previously there were no female candidates other than roles traditionally reserved for women.</p>	Transformative potential	Medium–High
Mali (DCF)	<p>Women are included in institutional structures and decision making, management committees, CCAs communal projects and development planning.</p> <p>However, there is less information about the weight that women (and other vulnerable groups) can bring to bear in decision-making processes.</p> <p>At national level, the ANICT has developed a gender policy and analysis that is central to its accreditation to the Green Climate Fund.</p>	Transformative potential	Medium
Mali (RIC4REC)	A requirement for at least 30% participation of women in CWGs made it possible to take into account women's priorities in resilience plans, and to improve the status and position of women in the community as they became part of the decision-making process.	Transformative potential	Medium
Nepal (Anukulan)	<p>Most farmers groups and water user committees reached the project target to include at least 52% women in total group membership and in decision-making positions. Participation in adaptation planning and early warning committees was lower at between 30 and 40%.</p> <p>Women are more confident speaking out in the meetings and participating in public affairs. They are supported to do so by their families and communities.</p>	Transformative potential	Medium

BRACED projects went beyond addressing women's agency and relationships at household level to changing gendered norms and institutions (both formal and informal).

Quotas have supported women's participation in local institutions, with impacts extending beyond BRACED activities.

Across many contexts where women have limited representation in community affairs, BRACED projects set clear quotas for women's participation in local-level institutions that support resilience (discussed in Section 4.2.1). Outcomes have included greater participation of women in groups formed by the project, which is subsequently translating into greater participation of women in community affairs, and greater likelihood of women's needs being addressed in actions to build resilience. This is seen to increase the likelihood of women's priorities being taken into account in resilience plans (RIC4REC and DCF). PRESENCES also found a positive correlation between women participating in formal groups and accessing climate information.

Projects have opened new spaces for women to work together, building confidence and mutual support.

These spaces have improved relationships and increased solidarity. Other structures formed by the project (women's farmer groups, VSLA groups) have also created spaces for women to discuss matters that are important to them, as well as facilitating access to climate change and discussing climate information. This has been a factor in increasing solidarity and social support. In Kenya, PROGRESS has also organised women's networking events which have provided for facilitated conversations about experiences and challenges facing their businesses and for building coalitions to address challenges, including climate impacts and harmful-gendered practices. Other important measures include agreement of quotas for women's participation, and time saving and support from male champions, discussed in the sections above.

Subnational and national institutions have greater capacity to take action on gender-based violence, and for mainstreaming gender into resilience.

PROGRESS and DCF have also created changes to institutions at subnational and national levels. PROGRESS has worked in Wajir county, Kenya, to significantly increase reporting of sexual and gender-based violence. The project has also contributed to an increased number of female candidates for county government elections. The DCF project in Mali has worked to integrate gender into institutional frameworks for addressing climate change at national level. The project supported ANICT to undertake gender analysis and develop a gender policy as part of its accreditation to be the Green Climate Fund.

Significant barriers to gender equality remain, and more emphasis on gender is required in resilience programmes – including undertaking gender analysis, developing gender strategies, investing in staff and partners as gender champions and evaluating change.

Barriers to change include entrenched attitudes and gender norms. In Nepal, the Anukulan project observed that women's participation is still lower in district-level meetings which require travelling away from home. These barriers can also include the attitudes of staff and partners: for instance, key partners in the Livestock Mobility project did not see the importance of promoting gender equality, did not support the involvement of women in management committees and did not see the existing situation as a problem. The BRACED Evaluation team subsequently found that it was very difficult to facilitate women's participation in the FE. In contrast, the BRICS FE noted significant changes in the attitudes of staff and partners, indicating the importance of bringing them on board. This project had invested significant energy on building the capacity of project staff to be gender champions.

The BRACED programme operates on the premise that gender and other forms of social inclusion are crucial to an equitable climate change response. It is clear that the inclusion of women in adaptation and resilience-building activities is central to effective programming and reaching the whole population. However, project evaluations struggled to make explicit connections between gender equality and resilience, despite the range of evidence, literature and guidance related to climate change and gender, to demonstrate the links between gender equality and broader project evaluations. In spite of this, there is some evidence from the evaluations of how gender equality links to the resilience considerations.

4.4 Information outcomes: access to and uptake of climate information

The majority of BRACED projects made significant investments in climate services, supporting access to and uptake of weather forecasts and longer-term climate information.

Key points

- BRACED projects demonstrated considerable achievement in brokering access of climate information, particularly short-term and seasonal forecasts. This is increasing anticipatory capacity: people are using the information to plan agricultural and livelihood activities and reduce losses from climate hazards.
 - The effectiveness of work in this area is underpinned by work that links different scales to address supply and demand for information. Importantly, projects have focused not only on technology and information products, but the institutions that shape how information is interpreted, communicated and used. This includes the relationship between scientific and traditional forecasting.
 - While the uptake of short-term and seasonal weather forecasts has been strong, more needs to be done to integrate longer-term considerations of climate change into planning, project activities and decision making.
-

Table 16: Climate information access and uptake – reported outcomes

COUNTRY (PROJECT)	OUTCOMES	3AS AND T	STRENGTH OF EVIDENCE
Ethiopia (CIARE)	<p>91% of people who access climate information understand at least half of it.</p> <p>In communities, climate information is being used to manage cropping and livestock, which has reduced climate-related losses.</p> <p>National Meteorological Agency (NMA) is providing more reliable local forecasts with data from 4 new automatic weather stations.</p>	<p>Anticipatory</p> <p>Absorptive</p>	Medium
Ethiopia (MAR)	<p>NMA providing more reliable local forecasts.</p> <p>Weather forecasts on radio are more frequent and reliable with data from 25 new automatic weather stations.</p>	Anticipatory	Medium
Mali (DCF)	Farmers following weather advisories from the meteo have 80% success rate.	Anticipatory	
Mali (RIC4REC)	48 % of beneficiaries using climate information (58.7% of men, 31.9% of women).	Absorptive	Low (no baseline)
Myanmar (Myanmar Alliance)	<p>83% of target population under high and medium intensity reported that they have access to weather forecasts/risk information in 2017 compared to 56% in 2015.</p> <p>43% of target population under high and medium intensity reported that they have access to early warning information for extreme events in 2017 compared to 26% in 2015.</p> <p>Seasonal forecasts are being used by government and communities to manage water resources and agricultural activities.</p>	Anticipatory	High
Sudan (BRICS)	Geneia Radio and the Sudan Meteorological Association (SMA) are providing localised daily weather bulletins and a five-day forecast. This has created demand in other areas.		

In Ethiopia, the CIARE project investigated how climate information was being used in communities. Almost all respondents that have access to scientific climate information reported taking action. The actions reported as most effective were: 'Deciding when to move livestock' (76% effective), 'storage of animal food' (67% effective), and 'deciding when to harvest' (31% effective).

Previously, we are waiting too long to move our cattle to which they become so weak and many died. However, now we reduce our vulnerability through mobilizing our cattle based on [scientific climate information] we heard from radio and listening groups.

Focus group participant, Chereka, Hamer. CIARE FE Report: page 27.

Women interviewed in the RIC4REC FE were using the information for additional purposes, such as planning their laundry activities, drying of produce and for travel planning. This indicates the potential of weather forecasts to **improve wellbeing**.

BRACED has supported a range of pathways that contribute to access to and uptake of climate information. While the availability of climate information in Africa and Asia is rapidly advancing, gaps in climate services 'value chain' (see Box 2) are presenting barriers to uptake.³¹ BRACED projects played an important brokering role, working in partnership with national meteorological agencies, sectoral ministries and departments, private sector providers to ensure that women and men could **access, interpret and apply climate services** at appropriate scales.

Box 2: Climate services 'value chain'

CARE and Jones *et al.*, suggest four stages in the climate services 'value chain':

- Climate data acquisition and analysis
- Interpretation
- Communication
- Use

BRACED projects have supported change processes at all four stages to support both access and uptake, building links from national to local level. Jones *et al.* suggest that non-government organisations need to exercise caution to avoid duplication of climate services at a time when national meteorological agencies are investing in making their services more user driven. However, they can play an important brokering role enhancing collaboration between stakeholders and across institutional levels to ensure that users have access to information.³²

A small number of projects have contributed to **improved precision of local forecasts**. In Ethiopia, where the National Meteorological Agency (NMA) has the capacity to analyse climate information and an interest in improving services to end users, the MAR and CIARE projects have invested installing automatic weather stations in project locations.³³ MAR played a critical role in **brokering agreement on installation**, something that the NMA struggled with in other regions, because of their existing relationships with local communities.³⁴

³¹ Wilkinson *et al.* (2015).

³² Jones *et al.* (2016) suggest five areas of interaction and engagement to help to address these risks. These are: improving knowledge sharing; enhancing coordination on planned activities; enhancing collaboration across systems and scales; focusing on knowledge co-production; and emphasising learning processes.

³³ MAR-E has installed 25 automatic weather stations and CIARE has installed four.

³⁴ *MAR-E Final Evaluation* (2018) LTS International, p. 48.

The weather stations are now providing information to the NMA at 15 minute intervals.³⁵ In Ethiopia and Burkina Faso, projects also brokered training for local meteorological services from the UK Met Office, with the aim of improving both provision and communication of information.

Despite the increasing availability of 10-day and seasonal forecasts, gaps exist in the ability to **interpret forecasts at national and subnational levels**. BRACED projects addressed this by **convening actors at national and subnational levels to interpret, communicate and act on forecasts**. In Myanmar, the Myanmar Alliance brought together staff from multiple government departments together in forums to discuss climate forecasts, including those related to El Niño and the 2016 and 2017 monsoons. Because government staff from multiple **departments understood the climate information and its implications for their portfolio responsibilities, they made management decisions across multiple sectors**. For instance, the Department of Fisheries developed safety advisories for fishermen at sea. Based on forecasts for low annual rainfall, agencies adjusted the management of reservoirs to optimise supplies. Farmers were informed of lower water releases and many opted to plant sesame instead of paddy rice. In Mali (DCF) and Niger (PRESENCES), projects undertook similar multi-stakeholder scenario planning.

Projects are **working with television and radio** media to improve the communication of localised weather forecasts and early warning information. In Mali and Niger, contexts where local radio stations provide a service in local languages but presenters may struggle to interpret and communicate technical information, the DCF and PRESENCES projects have provided training on presenting weather forecasts to local radio station staff. PRESENCES has also involved specialists from government technical services and NGOs in more than 60% of the broadcasts in local areas.³⁶ This has resulted in **accurate, climate information broadcast in local languages**.³⁷ In Niger, broadcasts are made in the evening which is a favourable time to reach the greatest audience of farmers.³⁸ In Sudan, Concern partnered with Geneia Radio and the Sudan Meteorological Association (SMA) to ensure that localised daily weather bulletins and a five-day forecast are now broadcast. The Myanmar Alliance project has developed radio and TV public service announcements for seasonal climate forecasts as an early warning strategy. The projects have **provided financial resources and training** to television and radio stations to improve the quality of local broadcasts **and strengthened communication** between media companies and meteorological services. In Ethiopia, Myanmar and Sudan, **positive feedback and growing demand for the service** are factors that will support sustainability – including in Sudan, where there is demand from areas in West Darfur beyond the project area according to BRICS.

³⁵ *CIARE Final Evaluation*, p. 16.

³⁶ Giordano and Ellina (2018) *Final Evaluation of PRESENCES*, p. 38.

³⁷ Bonis Charancle, J-M., et al. (2018) *DCF Final Evaluation*, p. 23.

³⁸ Giordano and Ellina (2018) *Final Evaluation of PRESENCES*, p. 21.

In the context of rapid growth in access to smartphones, the Myanmar Alliance supported the meteorological agency to **develop their Facebook page and mobile weather apps**, which were reported as a popular source of information. In Mali, the RIC4REC project **trained farmers to access and understand weather forecasts from a commercial SMS provider**. The project **subsidised access to this subscription service**. The 50% subsidy, which also provided access to an agricultural information hotline, resulted in high subscription rates. Even when the subsidy ended, there is evidence that people kept using the service. The MAR project planned to introduce a similar service in Ethiopia but faced regulatory barriers outside of the project's control.

An important strategy for local-level uptake of climate information has been socialising it through forums including **listening groups, early warning committees**, as well as integrating it into other forums such as VSLA and farmer groups. In Ethiopia, where many people used traditional forecasting, listening groups supported by CIARE were an important forum for people to **interpret the scientific forecasts alongside traditional knowledge and build trust**. A similar process occurred in Niger, where a local partner in the PRESENCES project noted:

The climate information is not something just for engineers or experts... It is now understood in the fields, even the pastoralists want to know... they have their traditional knowledge, but they need the scientific information, they know that they can get informed by an institution, so it is a big change... before they would not care so much but now they pay attention [...]. They trust it and they know where to look for the information. This is one of the biggest changes I have seen... it's very clear.

BRACED local partner staff. PRESENCES FE Report: page 36.

In Burkina Faso, early warning committees were sharing climate information with communities. The members had **defined roles and training** which gave them motivation and interest in this work. In Ethiopia and Burkina Faso, groups were provided with radios, which is also a motivation.

The PRESENCES FE noted that **timeliness was critical for effective uptake of climate information**. In Niger, there is a critical window at the start of the expected sowing period when farmers need to decide what they will plant, and when. Likewise, pastoralists need to make rapid decisions about where they will move their herd. If information has not been directed through appropriate channels and communicated in time, farmers and pastoralists will not wait. Delays in sharing climate information was the most frequently cited challenge by key informants, which was hampered by setbacks in receiving the seasonal forecasts from the regional meteorological agency that provides the information for the West Africa region, AGRHYMET (Regional Centre of Agro-Hydro-Meteorology for the Sahel).³⁹ More work is needed to ensure timely communication.

³⁹ Giordano and Ellina (2018) *Final Evaluation of PRESENCES*, p. 34.

Despite efforts to increase women's engagement with climate information, barriers to equitable access remain. In many BRACED contexts, women are less likely to control communications assets, such as mobile phones and radios, have lower literacy and are less likely to understand non-local languages. In Ethiopia, the CIARE project sought to address this by establishing women's listening groups: in one district there were 102 women participating in seven groups, with overlapping membership among self-help groups. In another district, low levels of female participation in listening groups were explained through gender norms: there was a perception that women had too many domestic responsibilities to participate in listening groups. The project FE found parity of access between male and female-headed households, however, female spouses of heads of households were far less likely to access climate information. In Mali, where RIC4REC prioritised mobile phone as the communication platform, the disparity is stark. Although 48% of project participants are using climate information, this comprises 58.7% of men and 31.9% of women. More needs to be done to address this gap.

While there was **strong evidence of improvements to short-term and seasonal forecasts, there was less evidence of improved uptake of climate information at longer timescales.** In many contexts, this was due to a lack of sufficient, or accessible information to understand potential deficit over a 10-year period. We could hypothesise that understanding of short-term forecasts and related uncertainty will help people plan for longer-term change. However, there is insufficient evidence from across the programme to understand how such information should best be used.

4.5 Towards outcomes and resilience at scale

As a result of BRACED, people are on a better footing to manage the impacts of climate extremes and disasters.

BRACED project evaluations have provided evidence of progress toward a number of outcomes. These outcomes reflect tangible increases in wellbeing and changes in absorptive, adaptive and anticipatory capacities. These include changes to income and food security and water availability, as well as documented changes to gender and women's empowerment. These combine with other outcomes, including around agricultural productivity and sustainability, access to financial services, and institutional and government structures, to create a foundation for long-term resilience.

A number of outcomes are being demonstrated at scale, including:

- Widespread access to and uptake of climate information.
- Improvements to financial services and access to credits and loans, particularly through VSLA groups.

Likewise, there are a number of models that have achieved local impact and that could be replicated across contexts, including:

- Approaches that unlock agricultural potential for small-scale producers, particularly when linked to markets.
- Development of local institutions that support planning and implementation of adaptation actions, and support communities to prepare for and respond to disasters.
- Strategic approaches to gender equality that build women's assets and decision-making power at household and community levels, while also engaging men and resourcing institutions to address harmful cultural norms.

However, the holistic approach that many BRACED projects have taken suggest that the *combination* of activities, *approaches* to implementation and *layering* of outcomes determine the extent to which they build resilience. For instance, in Nepal, Anukulan was able to improve women's income by:

- Improving access to water, meeting basic needs, freeing up women's time to participate in livelihood activities, and creating opportunity for irrigation.
- Promoting new livelihood activities (vegetable market garden and essential oil growing) and 'climate smart' practices (mulching, irrigation, soil solarisation and pest control).
- Engaging with institutions that add value to products, connecting producers to markets and building their power (essential oil distillation units, vegetable collection centres).
- Creating conditions for women's leadership (quotas for membership and leadership positions in project-supported positions).

The review of project outcomes in relation to the 3As and T also suggests some shortcomings. Gaps included a lack of attention to linking systems across scales and lack of clear strategy to support government influence and social inclusion. Without links to information and actions that address longer-term climate trends, it is unclear whether the outcomes will be sufficient to withstand anticipated changes over a longer period. This is particularly notable for some water security activities, but also affects the sustainability of any activity exposed to climate risk.

The connection described above highlights the importance of identifying not *what*, but *how* good practices can be replicated – the framing of our core evaluation question. Section 5 looks across the projects to examine in more depth at how changes have occurred.



5. HOW AND WHY CHANGE HAPPENS

Image: USAID
Ethiopia/
Nena Terrell

The BRACED projects have been implementing combinations of activities in varying contexts and across different scales in order to bring about adaptation, resilience building and strengthening. The main achievements of the BRACED projects in relation to resilience, reported at FE, are discussed in the previous section. The outcomes are summarised in terms of the underlying change pathways, which help to demonstrate how the things that BRACED has achieved can be considered to be 'resilience' and the degree to which this is so, guided by the framing set out in Section 2.3 and linked to the 3As and T.

This section focusses on how and why change happens, synthesising across the findings of the individual projects to a higher 'level of abstraction' (see Section 3.4.3) to generate evidence and learning about what works, why, how, for whom and in what circumstances, to strengthen resilience across the BRACED portfolio of projects.

5.1 Building and strengthening resilience

The ways in which BRACED projects bring about change to build and strengthen resilience depend on a combination of the way projects do things ('intervention factors' or 'resources' in realist terms) and the way people respond ('reasoning' to realists). These factors together constitute '**mechanisms**', which operate in relation and in response to contexts.

The MTR identified a number of mechanisms (see Annex 6) that we find further evidence for in the FE. Once again, we find implementation responds to context. This can be seen in the way that mechanisms such as the provision of **hands-on, practical support that is relevant**, in contexts where people have low levels of education and few resources to 'gamble', is still an important factor in determining whether or not people choose to participate in a project, putting into place the actions and behavioural changes necessary to achieve outputs and outcomes: for example, in Nepal, practical training and demonstration is seen as a decisive factor in farmers replacing old techniques for new ones and starting to use new inputs. 'Relevance' includes advocating technology that is appropriate to the populations and settings, including the climate context and risk faced by participants. This can be seen in South Sudan (IRISS) and the Ethiopian case (CIARE):

The focus group participants felt that whilst the training on land preparation, seeding, fertilizing (notably organic manure) and weeding was all useful, the most important aspect of the mechanism was the provision of quality quick maturing seed. This was because as rains are becoming less predictable, often shorter, quick maturing seed is more able to cope with this new climate scenario.

CIARE FE Report: page 32.

Practical support also includes **project demonstration**, used by most projects to show participants that activities actually work and to generate momentum for the activities, often through lead farmers (discussed below) and early adopters of technologies or approaches (e.g. Sudan, Chad, Mali, South Sudan). Again, this is important because high levels of poverty and a low resource base mean that farmers need to be certain that something is likely to work if they are going to do things differently, rather than relying on trust. In Mali (RIC4REC) the project FE has observed that training and demonstration sessions have generated greater community ownership of new technologies. In turn, there has been increased productivity, asset accumulation (including natural assets). In some cases, the success of activities in BRACED target communities has led to uptake by other communities without BRACED project support. Improving the asset base contributes to good underlying conditions from which people can be more resilient.

Linking – between activities and across institutions

A prominent factor in the way BRACED projects have successfully brought about change is a direct result of the way they have been designed as packages of activities intended to be implemented together, reinforcing and complementing each other. Echoing and building on the findings of the MTR and the *Routes to Resilience: insights from BRACED Year 2* report, there is strong evidence that the layering and **linking of activities** under the BRACED projects have contributed to positive change. There are many examples of this across a variety of combinations of activities (15 IPs).

In contexts where there are weak or non-existent market and institutional linkages:

- Linking and bridging between existing local institutions (e.g. savings groups and farmer groups) and activities means that projects can build on existing processes and actions and create links between different parts of the system. Linking project activities to income generation acts as an incentive for people to participate.
 - Sequencing activities appropriately and providing information in a timely manner, with people supported to apply new information, means that participants can make informed decisions about how they invest resources provided by the programme in ways that are more likely to lead to resilient outcomes (15 IPs).
-

Linking activities related to savings and loans to other interventions appears to be particularly fruitful (9 IPs; strong evidence). In South Sudan (IRISS), the layering and linking relate to **using existing institutional structures** to link activities to boost access to credit directly to income-generating activities, creating a 'chain' between inputs and markets (thus **linking across different institutional levels in the system**):

The integration of VSLAs with APFS groups came through as a key factor in their success. It meant that there was a pre-established group unit/structure to attach to, and (crucially) one which was generating income, or at least had potential to generate income.

IRISS FE Report: page 30.

Another area with strong evidence of layering and linking contributing towards outcomes is in combining access to climate information with practical cultivation advice and support that take weather forecasts into account. In some cases, this also links to access to finance, especially for the purchase of seeds. We see this in Mali (RIC4REC), Ethiopia (CIARE, including access to credit/finance), Nepal (Anukulan, including market development activities to strengthen supply chains – with some evidence of links across different institutional levels) and Niger (Presences). VSLA and farmers groups provide a platform for discussing climate information, and evidence from PRESENCES suggests that groups that had access to climate information were more likely to use loans to invest in improved/drought-tolerant seed varieties.

Influencing context to create conditions for change

Where there are missing or 'thin' markets for finance and insurance, by providing and linking these institutions BRACED projects are able to change the context which further stimulates the propensity to save so that people are more confident and motivated to invest in more diverse income-generating activities.

Linking across institutional scales, in Ethiopia the MAR project linked Arba Minch Zuria, Livestock Insurance Client, with VSLA and microfinance loans. The linkage with microfinance institutions and participation in VSLA resulted in a **change in context** that stimulated behavioural change leading to outcomes, namely developing a **saving culture** that helped the community to protect their household assets and the natural resources from disasters like drought:

Having the livestock insured increased the beneficiaries level of confidence to cope with climate change and motivated the community to be involved in a more profitable business with minimised risk (M).

The awareness created motivation to access more loans from VSLA and MFI to engage in different businesses and strive to diversify income (M).

MAR FE Report: page 47.

The strong link between **access to financial services** and food security has paved the way for further important and 'enabling' changes in context. In multiple projects, people are using credit to buy food and smooth income during 'lean' periods. Lack of credit is a barrier to people being able to invest in other income-generating and adaptation activities. By providing credit explicitly with this in mind, to address food security concerns, projects are effectively changing the context to allow other behavioural changes and outcomes to happen further down the line (9 IPs; strong evidence). This is discussed further below.

In contexts with high levels of food insecurity, by carrying out activities that provide resources to address people's food security concerns, this changes the context so that participants are better placed to subsequently invest in technical change that contributes directly towards building their resilience (9 IPs).

In Myanmar, a strong focus on **institutional change (policy and advocacy)** complements activities at the community level. The project evaluation demonstrates evidence of effectively advocating for the need for resilient development to layer and link different activities from community to national level, though policy influencing events were hampered by a lack of clear policy objectives. The attention of the government and development actors was focused on livelihoods, DRR and food security, but this work was viewed (by those stakeholders) in isolation. The project's layered and linked resilience-strengthening activities, including influencing work, have contributed to resilience ending up '*firmly on the national agenda*'.⁴⁰ Evidence of the project's influence includes the Resilience Framework developed by the project being included in the national policy agenda.

⁴⁰ Myanmar Alliance FE Report.

Multiple projects also sought to change the **gender and power context** in which they operated, creating space for women's participation in project activities and decision-making spaces. In many cases, this was done using **quotas** for women's representation within groups (including in leadership positions), as well as a requirement for women to benefit from activities and investment. This, combined with activities targeted specifically at women, has created spaces for women's empowerment and participation in decision making. Changes to norms around domestic responsibilities are also critical to women's participation in community activities, which otherwise risk increasing women's workload. Observing these trends, in combination with spaces for men to discuss and foster dialogue about gender and masculinity, is changing men's attitudes toward women. However, these changes are only being seen in projects which are dedicating sufficient time and resourcing to gender, including the use of a gender strategy grounded in rigorous analysis, dedicated staffing and resources, work to change the attitudes, norms and behaviours of staff, and partners to be gender champions.

Conflict drives vulnerability in a number of BRACED project contexts, including South Sudan and Niger. This poses a significant challenge and barrier to project implementation. Results in some countries need to be viewed through the lens of conflict and insecurity, achieved in very challenging circumstances. For example, considerable progress made by IRISS in VSLA activities despite sharp deterioration in the South Sudan context over the 3 years of BRACED.

Notably, BRACED projects have contributed to peacebuilding by:

1. Securing access and tenure over land and crucial livelihood resources (including SUR1M and Livestock mobility; stock routes).
2. Supporting collective activities including savings and loans groups and other mechanisms that support community cohesion. In South Sudan, VSLA groups have remained remarkably robust in spite of conflict.

Remaining frontiers include addressing Gender Based Violence as part of building and strengthening resilience to disaster risks and climate change.⁴¹

⁴¹ See www.braced.org/resources/i/violence-against-women-and-girls-and-resilience/

Meeting basic needs as an underlying condition for further participation

Across a number of projects, interventions that enable participants to **meet basic needs (particularly access to food and water)** can be seen as a mechanism-outcome combination that, in turn, becomes a mechanism for further outcomes to be achieved that contribute to and/or strengthen resilience (strong evidence). They are effectively laying an important foundation for further resilience building. For example, in Mali, RIC4REC found that **when food security is achieved, it 'becomes a mechanism in itself'** as it can trigger community buy-in into interventions: for example, climate-smart agriculture and access to climate-smart information, which in combination improve farmers' ability to make livelihood decisions, i.e. participants are able to take risks, and build farmers' confidence in food availability which might result in the sale of surplus yields (potentially leading to improved income; improved absorptive capacity).

In contexts where poverty levels are high and people struggle to meet their basic needs, addressing basic needs first (including access to food and water) means not only are people likely to buy in to an intervention because it is seen to be responding to their needs and priorities, but also they are subsequently more confident that their needs are met and they are better able to take risks. Improved confidence in food availability means that the sale of surplus yield is more likely, potentially leading to increased income, and improved absorptive capacity (9 IPs).

For others, inputs and assets provided by the project that **linked directly to strategies to meet basic needs** meant that interventions were **accepted by participants as responding to their needs and priorities**, as in the case of Burkina Faso:

With climate change it does not rain as consistently as it did before. This is making agriculture-related income-generating activities and more basic activities like feeding families more difficult. This is why the ruminants provided by the project and other income-generating activities were viewed so favourably. A number of women explained to the evaluation team how they would assess how many ruminants would be sold and how they would manage to keep a healthy enough number to keep the stock growing. The motivation for selling always boiled down to immediate necessity. Hence the sale of the ruminants contributes to improving the immediate living conditions of beneficiaries, even if it does not lead to significant enough change to allow individuals and households to shift away from more perilous circumstances.

Zaman Lebidi FE Report: page 24.

In a similar vein, in Chad, providing easy access to clean water (boreholes and rehabilitated water points) '**provided a quick-win with communities and got their buy-in for other activities**'.⁴² Interventions that supported time-saving (vegetable collection points in Nepal, water access in multiple countries) reduced women's workload, which in some cases is a precondition for other activities. In all these cases, even though the activities may not have directly built resilience (yet), they are making a good contribution towards establishing the necessary foundations that are a pre-requisite for engagement in and successful application of resilience-building and strengthening activities further down the line. This finding highlights the need to take into consideration the timeframes necessary to effect change of the order expected by programmes like BRACED.

Collaboration and credibility

All IPs are working collaboratively with communities, government and civil society. This includes: prioritising activities, selection of participants, participatory planning and/or formulation of LAPAs (Myanmar, Nepal), construction and installation in the case of water activities (Nepal, Burkina Faso, Ethiopia-CIARE, Chad/Sudan), Community-Led Total Sanitation (CLTS) (South Sudan). For some, this extends as far as designing the activities: for instance, in Ethiopia, activities to improve agricultural productivity under CIARE. **Collaborative and participatory working are important for community buy-in** and could be considered '**best practice**' in implementing development interventions (10 IPs; strong evidence). This links to enhancing the **credibility** of the activities in the eyes of the participants, through getting the right people on board at the community level. A strong example of this is DCF (Mali and Senegal), where efforts have been made to ensure a 'bottom-up' approach to designing and implementing activities: The investments implemented were selected through a design and decision-making process led most of the time by the communities targeted by the project. In some cases, the proposals were formulated in collaboration with the local council or cercle-level council. The process is initiated by communities and it is this bottom-up aspect that makes it so relevant: investments are designed by participants who, through support from the project, have analysed their own vulnerability, identified leverage to resilience building, and what they need to use this leverage. The likely result is that these projects address participants' real needs and expectations. This is reflected in a comment made to a project facilitator from Douentza by a beneficiary from Koubewel-Koundia:

What I choose for me and what you choose for me does not have the same impact.

DCF FE Report: page 7.

⁴² BRICS FE Report, p. 38.

Across a range of contexts, by working collaboratively, participating with communities ensures community buy-in. This means that interventions are more likely to address beneficiary needs and expectations, uptake is higher and people will actually carry out activities that will improve their absorptive and adaptive capacities. Interventions and results are more likely to be sustainable after direct project involvement ends.

Given the time it takes to effect tangible change and build resilience, this means that projects are more likely in the medium-long term to successfully result in resilient outcomes, because the processes through which these are generated are also resilient.

Getting the right people on board at the community level can enhance the credibility of the activities in the eyes of participants and potentially mitigate the risk of further entrenching social and cultural norms that exclude certain groups (10 IPs).

In Ethiopia (CIARE), the involvement of the community in selecting seed recipients was highlighted as an important factor in building ownership and acceptance of this activity. In the Mali case, credibility meant ensuring **strong involvement of village leaders** (RIC4REC), implementing **activities in line with the needs of the community**: in this case, the packaging of training and technology for climate-smart agriculture and soil, flora and water conservation techniques. Coupling this with **practical demonstration** and the role of **word-of-mouth** have enhanced credibility and therefore uptake:

Improved seed, Zai pits, micro-dose, crop association, contour bunding (CB), and FMNR have allowed households to adapt their agricultural production methods to climate change. These climate information-related practices have led to better adaptation and anticipation of the effects of climate change.

RIC4REC FE Report: page 17.

This way of working is more likely to ensure sustainability after project support is withdrawn.

This example from Mali (DCF) highlights the value of making sure that **the right leaders or champions are engaged**:

In several cases, communities have chosen "natural" leaders to represent them: individuals who are known for their personal experience in local development and/or their vision of development issues. These are often former civil servants or retired teachers who, through their careers, are able to bring an outside perspective to the community. In the initial model, this was identified as a factor in the success of the approach.

DCF FE Report Annex: page 11.

However, this does create risks of entrenching gender norms, as in the Myanmar case, where, during village planning, women tended to fall into line with the priorities articulated by male leaders.

Credibility is also enhanced through **encouraging communities to work collectively**, often using **existing group structures** (a mechanism identified at MTR): for example, management committees, alongside collaborative project implementation to engender shared project ownership (collective mobilisation) and therefore buy-in from communities, as in the case of Mali and Senegal (DCF). Collective working applies not just to community involvement but also higher-level formal institutional partners: for example, working with the meteorological services translating forecasts to highlight the agricultural implications (Mali/DCF; also Ethiopia under the CIARE project). By working with a partner (IED) with recognised expertise on climate change in Senegal, notably an agency with an existing remit, and by ensuring staff engagement, the project (DCF) has been able to develop national guidance on mainstreaming climate change into local planning. For Chad and Sudan, the IP suggested that in contexts where academic institutions are respected, BRACED partnerships with these institutions (i.e. TUFTS in BRICS) can give credibility to interventions and extend reach such as having research published on humanitarian platforms. In the Burkina Faso case, where the IP was working with agro-pastoralists, combining climate information with local knowledge enhanced credibility, which increased access to and use of climate information hand-in-hand with the uptake in new agricultural practices. Higher level institutional partners also provide valuable political champions (e.g. Mali – DCF working with ANICT). In contexts where levels of coordination around humanitarian issues are low, such as Chad and Sudan, project support to government-civil society forums, including Agora 2030 in Chad and the IPC committee in Sudan under BRICS, creates space for **collaboration and opportunity for collective influence**.⁴³

Working with credible and respected higher-level formal institutions (such as meteorological services, academic institutions) with recognised expertise and a 'presence' can provide important political champions for the project activities, increase the credibility and the reach of interventions, leading to better uptake and greater sustainability.

and

Engaging with the right leaders, at community or higher institutional levels, also increases the credibility and the reach of interventions, leading to better uptake and greater sustainability. In other cases, when working with relatively 'closed' marginalised communities, credibility and uptake are enhanced through the trust engendered by combining local knowledge with scientific information (5 IPs; medium evidence).

⁴³ BRICS FE Report, p. 23.

Regular involvement of project staff and partners in communities

The MTR found **ongoing involvement and follow-up** to be a key mechanism (medium evidence). In response to the MTR, some IPs stepped up this element of their implementation:

The mid-term review acknowledged that follow-up and monitoring were essential. In addition, Concern staff in Chad overnights in villages, increasing people's trust in them and providing more quality time with communities.

BRICS FE Report: page 33.

This appears especially important (coupled with practical demonstration and appropriate training tools) in the contexts of low-literacy levels where IPs are working. There is further evidence for the importance of regular involvement and follow-up by project staff at FE across many projects including:

access to project staff mobiliser based in proximity to village for coaching.

RIC4REC FE Report: page 22.

Regular involvement depends on the context, and, crucially, if the context allows it. For example, within one project in Chad and Sudan the **different contexts shaped the progress and impact of the programme.** Security and access problems in Sudan were a major barrier to providing consistent monitoring and support to targeted communities. In Chad, however, security was less of an issue, and access to communities – in particular, teams overnights in villages – was shown to clearly contribute to the success of their activities. For the Chad team, BRICS activities were also often a continuation of an earlier project, meaning that:

Progress by the end of the grant was more advanced than in Sudan, where it required a new way of working and thinking.

BRICS FE Report: page 23.

In contexts where literacy levels are low and if the security situation allows it, ongoing involvement of project staff and follow-up with communities, emphasising practical demonstration, helps to build trust of communities in project staff. This creates the right conditions for the project to flourish: participants are more likely to take up project activities and apply new practices and techniques, and this is more likely to be sustained. This contributes to the likelihood of resilience being built and strengthened (5 IPs).

Providing incentives and subsidies to encourage participation

All projects use in-kind contributions to incentivise participation: for example, providing hardware such as tools and equipment and communities contributing in providing labour, carrying stones or constructing fencing in Ethiopia (CIARE); supporting installation in Nepal (Anuklan); digging shallow wells or improving existing water points in Chad/Sudan (BRICS). Although CLTS stipulates no subsidies, in Chad, staff changed their approach and provided additional material support in the form of concrete latrine slabs. In a community in Sudan, project staff found it difficult to implement CLTS as there was an expectation that Concern would supply the necessary materials to build the latrines.⁴⁴ Most of the IPs were also implementing multiple activities within particular areas and expected that this would increase probability of success, or as described by BRICS, community buy-in for other intervention packages. Incentives and subsidies have also been used to good effect in **contexts where levels of trust in private sector is low**, as in the case of Ethiopia (MAR) where the project faced the challenge of low trust in banking institutions because in the past people have lost money in banks. To mitigate this, the bank targeted **early adopters and influencers** (students) to increase uptake and offered incentives for people who signed up other people (medium evidence).

In contexts where the level of trust in the private sector is low, by targeting early adopters and influencers and offering incentives to people to sign other people up to an intervention means the project can piggyback on trust inherent in social networks to improve project reach and uptake (7 IPs).

Where projects are implementing their activities in remote areas with low population densities so that the commercial viability of private sector operation is low, by (temporarily) subsidising and supporting private sector actors these are incentivised to provide services (e.g. financial services) to populations in these remote areas, thus linking usually marginalised people and communities into (financial) systems. This means that people can benefit from access to financial institutions where previously there were none, building up a financial history that could eventually improve their access to credit and potentially increase productive investments. This potentially contributes to building absorptive and adaptive capacities as incomes increase or people are able to invest in more climate resilient livelihood activities (1 IP).

Incentives also extend to those designed to **encourage private sector participation** in the projects: for example, subsidies paid by a project to the private sector to make it commercially viable for them to provide their services in remote areas. An important example of this is the case of MAR's mobile banking intervention in Ethiopia, where the project's support to mobile banking service providers played a crucial role in overcoming the barriers faced in selling mobile banking products to remotely located pastoralists in the project Woreda areas. In the context where the project is working:

⁴⁴ Ibid., p. 26.

A major barrier preventing the widespread expansion of mobile banking products to pastoralists in the lowland areas is the relatively low commercial gains compared to working in urban and highland areas. Therefore, without external support it would be commercially difficult for them to provide coverage across all lowland areas.

MAR FE Report: page 55.

Summary – Building and strengthening resilience

Key messages emerging from the BRACED project FEs about building and strengthening resilience relate to providing the right kinds of incentives so that people respond to the project activities in positive ways. These incentives relate directly to the contexts in which projects are working: weak markets and institutions, high levels of poverty and low asset base, and low levels of trust in external interventions.

5.2 Building resilience in systems

Systemic focus: strengthening institutions and linking across levels

An important process or mechanism for building resilience in a systemic and sustainable way is by making vertical linkages between actors and institutions at different levels (medium evidence). For example, we see that in Chad a key contributing factor to achieving food security, health and nutrition outcomes has been **strengthened links in the community** between people and the health and nutrition centres.⁴⁵ However, **building understanding and capacity at higher institutional levels takes time**, especially where advocacy is needed. This is reflected in the fact that while this forms an important component of the pathway towards resilient change (CMO), evidence so far from BRACED projects is relatively weak. We would expect the activities under BRACED-X on policy and advocacy to allow us to 'test' this theory further after more time has elapsed.

In Ethiopia, a growth in foreign private investment in agriculture is affecting the livelihoods of pastoralists in some areas, and hence exposing them to climate shocks. This is the result of gaps in knowledge among government decision makers and private investors regarding social and environmental impact. By raising the capacity of the EHAIA through providing training and institutional strengthening, the project has increased its capacity to raise awareness and work with investors. It is still too early to see tangible outcomes, though there is some early evidence of change in understanding and socially responsible investing amongst investors.⁴⁶

⁴⁵ BRICS FE Report, p. 18.

⁴⁶ MAR FE Report, p. 47.

In contexts where policies work against or are openly hostile to pastoralists, and work on pastoralists is seen as donor imposed, a **coordinated advocacy strategy, implemented with partners with capacity is critical to shifting attitudes** among powerholders at national and regional levels. Where this is missing, ad-hoc and opportunistic activities are less likely to lead to effective and sustained change (Niger, Burkina Faso, Mali, Senegal; Mauritania: Livestock Mobility FE report).

In contexts where national policies favour foreign private investment to the detriment of poor, marginalised people and there are gaps in knowledge among decisions makers and other key actors and social and environmental impacts, then strengthening and raising the capacity of key institutional actors with influence at the national level leads to raised awareness and an increased likelihood of socially responsible investment and policy, thus improving the wellbeing and absorptive capacity of marginalised people.

In contexts where policies work against or are openly hostile to poor, marginalised groups/people and work on these groups is seen as donor imposed, a coordinated advocacy strategy, implemented with partners with capacity is critical to shifting attitudes among powerholders at national and regional levels in order to achieve effective and sustained change (4 IPs; weak evidence).

Systemic focus: Working with the private sector and public-private linkages

Unless projects undertook activities to strengthen markets and market linkages and to ensure the participation of private sector players then, on the whole, any activities to enhance productivity and increase production have limited scope to contribute to resilience. A notable minority of projects have been working to improve links to the private sector. In Ethiopia, public-private linkages played an important role in **creating markets and employment opportunities** in urban areas supported by the Challenge Fund. However, the scale and scope of this activity is still small, benefiting 100 people only at the time of the FE.⁴⁷ For others, marketing has been supported by project-facilitated meetings between producers and buyers – as in the case of Nepal's essential oil producers, including exposure visits to **improve farmer capacity and market sense**:

In [the] case of essential oil, meetings between essential oil buyers associated with Jadibuti (herbal) Association of Nepal (JABAN) and essential oil producers/farmers were organised to link for the market of the essential oil. In addition, exposure visit of essential oil producers (DU) to the traders/buyer company at Nepalgunj and Kathmandu were organised for developing sustainable marketing linkages.

Anukulan FE Report: page 18.

⁴⁷ Ibid., p. 40.

The importance of **demonstration to encourage buy-in** and understanding has been highlighted above. Linking producers to buyers/traders has also been an important mechanism in Wajir County in Kenya, where a SACCO (Crescent Takaful Sacco – CTS) have been linked to livestock meat exporters and markets in the Middle East and also to pastoralists, thus widening markets:

Providing market linkages to livestock producers that can produce substantially higher market value is another absorptive capacity aspect of the financial services programme that will lead to systemic change through a formalisation of the livestock sector.

PROGRESS FE Report: page 19.

Implemented at a big enough scale, linking to private sector can enhance sustainability of project activities. Again, in Nepal, community business facilitators (CBF) coupled with a challenge fund help to incentivise participation:

Value chain households are linked with the private sectors to increase the household's access to climate-resilient products and services such as improved seeds, fertilizers, and other climate-smart technologies. Private sector actors in the value chain are linked to these farmer groups to generate demand for products and services that smallholder farmers need to diversify their livelihoods, and to establish stable conduits for training and technical support. This approach has demonstrated that by integrating and organising market actors, including vulnerable smallholder communities, into commercial pockets, the profit generated will sustain local-level institutions capable of continuing activities after project completion. Essential to this is establishment of community business facilitators (CBFs), who facilitate sales and training of climate-adaptive technologies, and a challenge fund that provides initial incentives for businesses to enter into underserved markets, including the most vulnerable communities.

Anukulan FE Report: page 18.

Across the projects, there are many ways of working with private sector partners with the projects fulfilling different roles and functions. As discussed above, in Ethiopia (MAR), the project role has been to subsidise private sector actors in the case of 'Nyala Insurance' to make working in remote areas commercially viable. This is another example of a mechanism that once in place changes the context or conditions (i.e. institutional change in the form of addressing the problem of thin or missing markets for financial services) that allow behaviour to change leading to improved resilience:

*Having the livestock insured **increased the beneficiaries level of confidence** to cope with climate change and motivated the community to be involved in a more profitable business with minimised risk. The awareness created motivation to access more loans from VSLA and MFI to engage in different businesses and strive to diversify income.*

MAR FE Report: page 47.

In contexts where participants have poor access to markets and information, strengthening market linkages and working with the private sector to provide services in ways that are appropriate and sensitive to needs and the context, at the same time as implementing activities to enhance productivity and production, means that project participants will be confident to engage with private sector actors to amplify the benefits of productive activities, leading to improved absorptive capacity and more sustainable and systemic change (7 IPs; medium evidence).

5.3 Summary and reflections

The synthesis of the evidence from across the BRACED projects of the pathways towards building and strengthening resilience, uses a realist 'lens' to help us to explore how, why, for whom and in what circumstances the programme is working.

At MTR we felt that the tendency for IPs to focus their reflections closer to the activity end of the change pathway was due to the stage of implementation – outputs and outcomes were at very early stages and there was a dearth of evidence. We expected there to be more evidence at FE for outcomes because more time had elapsed for change to take place, and we do indeed find this with some indications of how and why these outcomes link to strengthened resilience. There is still a strong focus on intervention factors – the way projects do things – and these are often described in relation to the way they then trigger participant involvement with project activities, even if people's thinking and reasoning is not explained. We are also starting to see mechanisms emerging in relation to activities aimed at systemic change – the linking across scales and institutional change, which was not possible at MTR because not enough time had elapsed for these longer, slower processes to have matured sufficiently. This is summed up in the CIARE and IRIS FE Reports:

The time taken to develop resilience beyond anticipation and absorption seems to likely take longer than three years. Changing behaviours and building both knowledge, assets and new connections requires at least two climate (wet/dry) cycles, if not longer. Whilst the benefits in having a range of partners within a programme suggests also a time requirement for building understanding and collaboration between different actors.

CIARE FE Report: page 6.

Meaningfully engaging government and coordinating with other NGOs both emerged from the evaluation as equally challenging and important. The practices used in IRISS of including relevant local government officials in capacity building activities, of engaging in cluster and other NGO/Government coordination forums, of contributing to central government consultations and so on, are all worthwhile, but there is need for something based on high level shared strategy and buy-in if real harmonisation, coordination and joint working around resilience building is to take place.

IRISS FE Report: page 55.

In line with the findings of the MTR, many of the catalysts for change reported by the IPs relate to the way that they do things (intervention factors) rather than mechanisms in a strict realist sense, insofar as they reflect behavioural change and/or changes in 'reasoning'.

The messages emerging from the BRACED project FEs relate to providing the right kinds of incentives so that people respond to the project activities in positive ways. These incentives link directly to the contexts in which the projects are working: weak markets and institutions, high levels of poverty and low asset base, and low levels of trust in external intervention. A summary of the main mechanisms is listed in Box 2.

In contexts where there are weak or non-existent market and institutional linkages: carrying out activities that help to strengthen linkages across local institutions and different activity areas can create incentives for people to participate: for example, by linking savings to potential income generating activities, which in turn are helped to 'bear fruit' through support to improving market and other institutional linkages. This, in turn, generates further confidence and motivation to invest in new areas that are likely to improve absorptive and adaptive capacities and therefore, resilience. The sequencing of activities is important, especially where the provision of climate information is involved, so that people are able to act on it. Strengthening market linkages may also involve supporting private sector actors to operate in the remote areas that many of the BRACED project participants are living in – filling a real gap in provision and changing fundamentally their context with the potential for real, systemic, transformative change.

On the whole, the BRACED projects are working in contexts where there are high levels of poverty and a low asset base. Providing resources such as tools and materials or addressing basic needs means that people are more likely to respond to the project resources and implement activities resulting in tangible, longer-term benefits. This can be the difference between people participating and the project succeeding, or not.

Working to achieve community buy-in means responding to context in the way projects are implemented, as well as bringing about changes in the context whereby there is sufficient trust generated towards the project (both the implementers and activities) for people to participate, whether project partners and service providers or potential beneficiaries. This can be through working collaboratively with communities, getting the right people on board at the community level, including capitalising on demonstration effects by early adopters, ongoing involvement of project staff and follow-up with communities, emphasising practical demonstration. This means that interventions are more likely to address beneficiary needs and expectations, that uptake is higher and that people will actually carry out activities that will improve their absorptive and adaptive capacities. Interventions and results are more likely to be sustainable after direct project involvement ends.

At higher levels of the system, strengthening and raising the capacity of key institutional actors with influence at the national level leads to raised awareness and an increased likelihood of socially responsible investment and policy. This potentially will improve the wellbeing and absorptive capacity of marginalised people. Where policies work against poor, marginalised people and groups, a coordinated advocacy strategy implemented with partners with capacity is critical to shifting attitudes among powerholders at national and regional levels in order to achieve effective and sustained change.

A photograph showing a person's hands sorting through a large, woven basket filled with peanuts. The person is wearing a white shirt and is sitting on the ground. The background is a blue tarp or cloth. The image is overlaid with a blue tint and the text '6. WHAT CAN BE LEARNED FROM THE BRACED PORTFOLIO?' in white.

6. WHAT CAN BE LEARNED FROM THE BRACED PORTFOLIO?

Image: UNAMID
Sudan/Albert
González Farran

This synthesis of BRACED project FEs used a realist lens to address the overarching evaluation question:

How, where, when and why do BRACED interventions work, and what can be learned/how can good practice be replicated?

Section 4 synthesises the outcomes from across the 15 BRACED projects focusing on *what* the programme has achieved *for whom* during the three years of implementation. This forms the basis for the synthesis in Section 5 of *how, where, when and why* do interventions work to build resilience, using a realist 'framing' to examine pathways to change in terms of the **contexts and mechanisms** that underly how change happens.

Synthesising findings across a project of the size and scale of BRACED presented unique challenges. However, the scale of the programme also creates huge potential for learning for future programmes aiming to build community resilience at scale. This section sets out these key lessons emerging from the synthesis – about resilience itself, about projects to build resilience and about evaluating resilience projects – before discussing what might be replicated and in what ways.

6.1 Learning about resilience

The BRACED FEs offer a number of insights into how and why resilience is built and strengthened. The synthesis suggests the following conditions and mechanisms (and enablers and barriers to change) are important in building and strengthening resilience and should be taken into account when designing future resilience-strengthening programmes:

Resilience as a process

The BRACED ToC suggests that improved resilience is an end point, a set of capacities that enable women and men to improve their wellbeing in spite of climate extremes and disasters.

The FEs present a more nuanced perspective. Resilience manifests as both:

- A set of characteristics or processes that underlie outcomes and lay a foundation for other activities.
- Outcomes themselves that may constitute a more resilient state.

The set of characteristics that are important to resilience are dependent on context: an outcome in one area such as improved water access may lay the foundation for other work. This has implications for project Monitoring, Evaluation and Learning (MEL), requiring a shift away from measuring resilience only as an outcome, to think more in terms of resilience building as a process.

While a focus on absorptive, adaptive and anticipatory capacity is a useful lens, which focusses on positive capacities rather than vulnerability alone, more needs to be done to understand the conditions that projects expect people to be resilient to. More work also needs to be done to understand the extent to which outcomes from can withstand future climate impacts.

Linking and sequencing activities and outcomes

BRACED projects have packages of activities that are implemented together in a complementary manner, where one creates the conditions necessary for another to be successful. This 'layering and linking' has been a key strategy for projects to bring about change contributing to resilience. This is because activities in one area, such as VSLA, can subsequently be used as a springboard for other activities further down the line – for example investing in diversified livelihood activities. Strong evidence for this across a range of contexts from the FE builds on the findings of the MTR and the *Routes to Resilience: insights from BRACED Year 2* report.

Linking across institutional levels for systemic change

Operating at scale, including taking into account or working to influence national strategy and/or working with the private sector using appropriate instruments to support meaningful participation, are crucial processes for changing the institutional context. While direct implementation may deliver quicker wins, working across scale and with institutions creates a solid foundation for systemic change, and can play an important role in linking previously marginalised or excluded people into this system. Although projects are focused at community level, they are more likely to effect long term, and potentially transformative change when they have a clear strategy for engaging with and influencing government and market systems, supporting transparency and accountability as well as access to resources for adaptation at local level.

Change must be adaptive for it to be resilient

Anticipatory and absorptive capacities alone are essential, but not sufficient for building resilience. Outcomes reported against these capacities are short term in nature and do not go far enough in effecting sustainable, resilient change. They are also not sufficient in effecting transformation – change at scale. The pathways to outcomes reported by the projects that show the most promise in terms of resilience demonstrate that change must be adaptive and the processes that lead to or underpin change must reflect qualities (or resilience considerations) highlighted in Section 3. This would suggest that supporting moves away from climate-sensitive livelihoods, or at the very least supplementing this with other activities that are not reliant on the vagaries of the climate, are what it takes to be truly adaptive and therefore resilient over the longer term.

Bearing in mind that in many cases this shift is likely to be intergenerational, this means that there is a case for investing in improving traditional livelihoods as well emergent ones.

6.2 Lessons about designing and implementing resilience-building projects and programmes

Time frames are important for aligning expectations and designing performance targets

BRACED was an ambitious programme with a short implementation period. The elapsed period between project baselines and FE were, in most cases, less than three years.

Change takes time and different types of activities see results at different speeds, often depending on the (institutional) level or scale at which they operate. For example, higher scales such as planning or policy change outcomes take longer to realise outputs, compared to say planting a climate-resilient crop variety. When it comes to advocacy and long-term change, the lifespan of the projects has been too short to see this come to fruition at FE. If an IP needs to set up infrastructure, or effect institutional change including in market systems, then realising outcomes and being able to determine how and why an outcome contributes to 'resilience' will take longer. The high degree of variability in agriculture means long data series are often needed to confirm significant trends and can take time to determine the extent to which systems can be sustained in the face of variability and change.

By conceptualising resilience as a process or intermediate outcome we can still demonstrate that BRACED projects have achieved notable successes in many areas that provide important 'building blocks' towards resilience outcomes. An implication of this is that resilience programmes need to include process indicators in M&E systems and theories of change, building on the resilience literature and the resilience considerations set out in Section 2.

Starting points and contexts determine project 'performance'

IPs have different starting points and operate in different contexts. Change achieved in highly challenging contexts, such as those faced by BRICS (implementing in Chad and Sudan) and IRISS (in South Sudan) projects, means resilience is (implicitly) better tested in the course of implementation. It is important to include projects like these in order to truly test whether or not BRACED activities lead to improved resilience. However, because these projects start from a lower base and implementation is more challenging, their achievements on paper may appear to be less impressive than projects operating in relatively easier circumstances. There is therefore a risk that they may be penalised for this.

Changing context to lay foundations for adaptation

BRACED projects are changing the contexts in which they operate, both at local level and also the broader policy and governance context. In some cases, these may not result in measurable, tangible outcomes (e.g. DCF and LM) but they are laying long-term foundations for people to be able to adapt with support of government or private sector, e.g. through brokering commercial relationships. This is an important dimension of interconnectedness. Being strategic about fostering these other relationships are important project activities that are crucial for long-term adaptive change.

Adaptive management and flexibility for 'course correction'

Allowing IPs to change course in response to context gives projects a better chance of success, especially in a complex/complicated area like resilience, where we are still learning through implementation experience what it means. An implication of this is that there is value in carrying out deep reflection of implementation processes, like the realist reflexive approach carried out at MTR with a clear objective to inform lesson learning and 'course correction', including modifying project theories of change. These should be done at more regular intervals, during the life of the project and within a year of start-up (i.e. sooner than a mid-point MTR), facilitated by the M&E team, in order to bring experience to bear and reap the benefits sooner.

National-level influence needs understanding of political economy and power

Many of the evaluations were weakest in the area of having good theories for national-level policy influence. One of the challenges was that Component D⁴⁸ did not start, with many IPs holding off on advocacy because they believed that Component D was imminent. Nonetheless many IPs had national-level influence objectives. When it came to engaging with national-level policy and governance, only DCF and BRICS were able to demonstrate a systematic approach and did this well. Understanding links between local and national mechanisms for power and influence are very important for developing a programme with national-level impact. Likewise, better strategies are needed to evaluate the impact of policies, with good political economy analysis and power analysis at start and policy influencing and advocacy work resourced adequately.

Gender and inclusion requires strategic approaches to shift power

Societies that are more equal are more resilient. Building equality and inclusion means not only sharing the benefits of projects, but also shifts in power and control over resources. Gender and social inclusion were integrated into BRACED projects with varying levels of effectiveness. In general, projects delivered the best results when their work was based on a solid gender contextual analysis and had outcomes and activities centred on gender and women's empowerment. Change starts 'within' and requires shifts in partner and staff attitudes and capacity, as well as strategies to engage men in a journey toward gender equality. As PROGRESS work on gender-based violence in Kenya demonstrates, links across scale are important. Investment in capacity of institutions can make a big contribution.

⁴⁸ Component D is support to build the capability and capacity of developing countries and regional organisations to prepare and plan for the expected increases in the frequency and severity of climate extremes.

Beyond a focus on gender, future projects and programmes need to do more to identify and develop strategies to engage socially marginalised groups, where climate change and disasters can exacerbate existing inequality. At a minimum, more needs to be done to engage people with disabilities. BRACED FEs contained no data about disability, and future programmes must support inclusion of people with disabilities from community through to national level.

6.3 Summary: how can good practice be replicated?

The evidence presented in the BRACED project FEs and the synthetic analysis using a realist lens highlight a number of valuable insights into how good practice, demonstrated by the projects, can be replicated. At a fundamental level, the design of the BRACED programme and projects seems to have got things right with regard to the 'activity package' approach – linking and layering activities in order to get the combinations right, given the contexts, to effect resilient change.

Some outcomes ('Improved access to financial services'; 'Improved access to climate information') are showing potential at scale. Section 4 highlights a number of implementation models that have achieved local impact and could be replicated across contexts, including:

- Unlocking agricultural potential for small-scale producers in combination with linking to markets – especially through private sector engagement.
- Developing local institutions that support planning and implementation of adaptation actions alongside supporting communities to prepare for and respond to disasters.
- Strategic approaches to gender equality. This means building women's assets and decision-making power at household and community levels, while also engaging men and resourcing institutions to address harmful cultural norms. Creating conditions for women's leadership (e.g. quotas for membership and leadership positions in project-supported positions).

Trust and credibility are key. Important aspects of implementation to generate buy-in include: Working collaboratively with communities; getting the right people on board at the community level; providing demonstration effects through early adopters; ongoing involvement of project staff and follow-up with communities; an emphasis on practical demonstration. Providing resources such as tools and materials or addressing basic needs means that people are more likely to respond to the project resources and implement activities resulting in tangible, longer-term benefits.

All BRACED projects operate in contexts where there are weak or non-existent market and institutional linkages to a greater or lesser degree. Activities show potential for replication mostly when they are demonstrating links to markets and supporting links across institutional scale – both in agriculture and some of the institutional approaches such as GCF. Carrying out activities that help to strengthen linkages across local institutions and different activity areas means that project activities are more likely to have tangible outcomes for people: for example, working with private sector actors to improve market access; access to climate information; addressing a disconnection in governance and institutions; filling gaps in provision and changing fundamentally the context. This has the potential for real, systemic, transformative change.

Strengthening the capacity of key institutional actors with influence at the national level leads to raised awareness and an increased likelihood of socially responsible investment and policy. Coordinated advocacy strategies implemented with partners with capacity is critical to shifting attitudes among powerholders at national and regional levels in order to achieve effective and sustained change.

Overall, the holistic approach of most of the BRACED projects suggests that the *combination* of activities, *approaches* to implementation and *layering* of outcomes determine the extent to which they build 'resilience'. These matter, crucially, to creating the right contexts and, in turn, appropriate incentives so that people respond to the project activities in the right ways.

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Annex 1. BRACED evaluation framework

EVALUATION ACTIVITY	FOCUS OF EVALUATION	DATA SOURCES	MAIN ANALYTICAL METHOD	OUTPUT
Evaluation Activity 1⁴⁹ – Evaluating the BRACED programme theory of change	Focus on the effectiveness of the BRACED programme as a whole – components A–D	All available primary and secondary data from BRACED projects; Primary and secondary data generated through KM-led small sample of BRACED country case studies	Contribution analysis in country cases	Two or three summative country studies produced in year 3
Evaluation Activity 2 – Evaluating the set of BRACED resilience-strengthening interventions	Focus on qualitative and explanatory synthesis of the set of project intervention 'packages' in order to draw lessons on what works and why in particular contexts	Two primary data sources: <ul style="list-style-type: none"> • Project mid-term and final evaluations • Project routine results reporting 	Thematic synthesis using a realist evaluation approach	Two synthesis reports – one following mid-term and one following final evaluations
Evaluation Activity 3 – BRACED project-level results	Primary focus is on robust causal inference – Do BRACED interventions work, and to what extent? Secondary focus on explanation – How, where, when and why do BRACED interventions work, and what can be learned?	Primary data generated by projects through M&E plans bolster by KM evaluation support	Experimental or quasi-experimental impact evaluation	Set of three project impact evaluation reports as set out below
• Catholic Relief Services – Mali and Niger	Quantitative measurement of change in outcome measured by ICF KPI4 Testing the project ToC to understand what works and why	Household survey data Focus groups and key informant interviews Case studies	Experimental or quasi-experimental impact evaluation Contribution analysis	A research paper Reports at mid-term and year 3
• Farm Africa – Ethiopia	Quantitative measurement of change in outcome measured by ICF KPI4 Testing the project ToC to understand what works and why	Household survey data Focus groups and key informant interviews Case studies	Experimental or quasi-experimental impact evaluation Contribution analysis	A research paper Reports at mid-term and year 3

⁴⁹ Evaluation Activity 1 was never commissioned.

EVALUATION ACTIVITY	FOCUS OF EVALUATION	DATA SOURCES	MAIN ANALYTICAL METHOD	OUTPUT
• Plan International – Myanmar	Quantitative measurement of change in outcome measured by ICF KPI4 Assessment of effectiveness of three treatments on outcome Testing the project ToC to understand what works and why	Household survey data Focus groups and key informant interviews Case studies	Experimental or quasi-experimental impact evaluation Contribution analysis	A research paper Reports at mid-term and year 3
Evaluation Activity 4 – World Bank Adaptive Social Protection (ASP) programme evaluation	Non-BRACED, but similar 'sister' programme – ASP. Focus is on learning about adaptive social protection for strengthening resilience to climate extremes and disasters from review of evidence at the intervention level (Track 1 – WB ASP impact evaluation synthesis) and at the 'system' level (Track 2 – theory-based evaluation of ASP 'system')	Track 1 – Synthesis of secondary data generated through WB ASP impact evaluations Track 2 – Primary data generated by KM supplemented by secondary data generated by WB ASP programme	Track 1 – Synthesis – specific variant TBC following evaluability assessment Track 2 – Theory-based design applying either Contribution Analysis or Process Tracing through two country studies	Track 1 – WB ASP impact evaluation synthesis report Track 2 – evaluation report with two country study reports as annexes
Evaluation Activity 5 – Flexible KM evaluation resource	TBC	TBC	TBC	TBC

Source: BRACED, 2015. *BRACED Evaluation Plan*.

Annex 2. Realist evaluation approach

The BRACED FE synthesis is grounded in the methodological approach of realist evaluation. This approach identifies theories about how a project or programme is expected to work. These are used to build explanations of *why* interventions may or may not work in practice.

BRACED is implementing a range of activities at programme level, as well as the project-level interventions carried out by IPs. This synthesis is primarily concerned with what is happening at intervention level in BRACED projects.

We have supported IPs in using a realist 'lens' (described in more detail below) during their FE data collection and analysis to help us to answer the EA2 Synthesis question:

How, where, when and why do BRACED interventions work,
and what can be learned/how can good practice be replicated?

Realist evaluation

Realist evaluation identifies theories about how a project or programme is expected to work. These are used to build explanations of why interventions may or may not work in practice. Both implicit or explicit theories may have informed the design of the programme interventions, as well as other relevant theories that offer alternative explanations. These are referred to as 'programme theories'.

Realist evaluation then focuses on understanding how contextual factors, such as changes to the climate, political structures, cultural norms, location and participants, shape and influence how the programme theories play out in practice.

Context is understood as the most important influence on whether an intervention succeeds in activating a change process (often referred to as a '**mechanism**') that will cause an outcome. Causation in realist evaluation therefore rests on understanding the influence of context on 'mechanisms' and **outcomes**.

Interventions interact with a series of mechanisms that might operate in different ways in different contexts. This is because people respond to the intervention according to their context.

Assumptions are embedded in the programme theory, as contextual factors or mechanisms that are thought to influence whether or not an outcome arises. These are explicitly tested through testing CMO configurations (Punton, 2016).

Source: Evaluation Support and Synthesis Design Report, January 2016.

What does it mean to take a realist lens?

The core idea behind realist evaluation is that different mechanisms (or change processes) can lead to a variety of outcomes in different contexts. Realist evaluation researches how this might work in practice by identifying context-mechanism-outcome configurations (CMOs).

CMOs are theories depicting how we expect the BRACED programme to work: the mechanisms we think will be operating, the contextual factors that will need to be in place to allow them to operate, and the outcomes that will be observed if they operate as expected. These are the fine-grained programme theories.

We separate out features inherent in (or under the control of) the programme as intervention factors or intervention mechanisms (I), from other contextual factors or mechanisms that are not, to give the formulation I+C+M=O (ICMOs).⁵⁰ Some examples of ICMOs are provided below.

ICMO examples

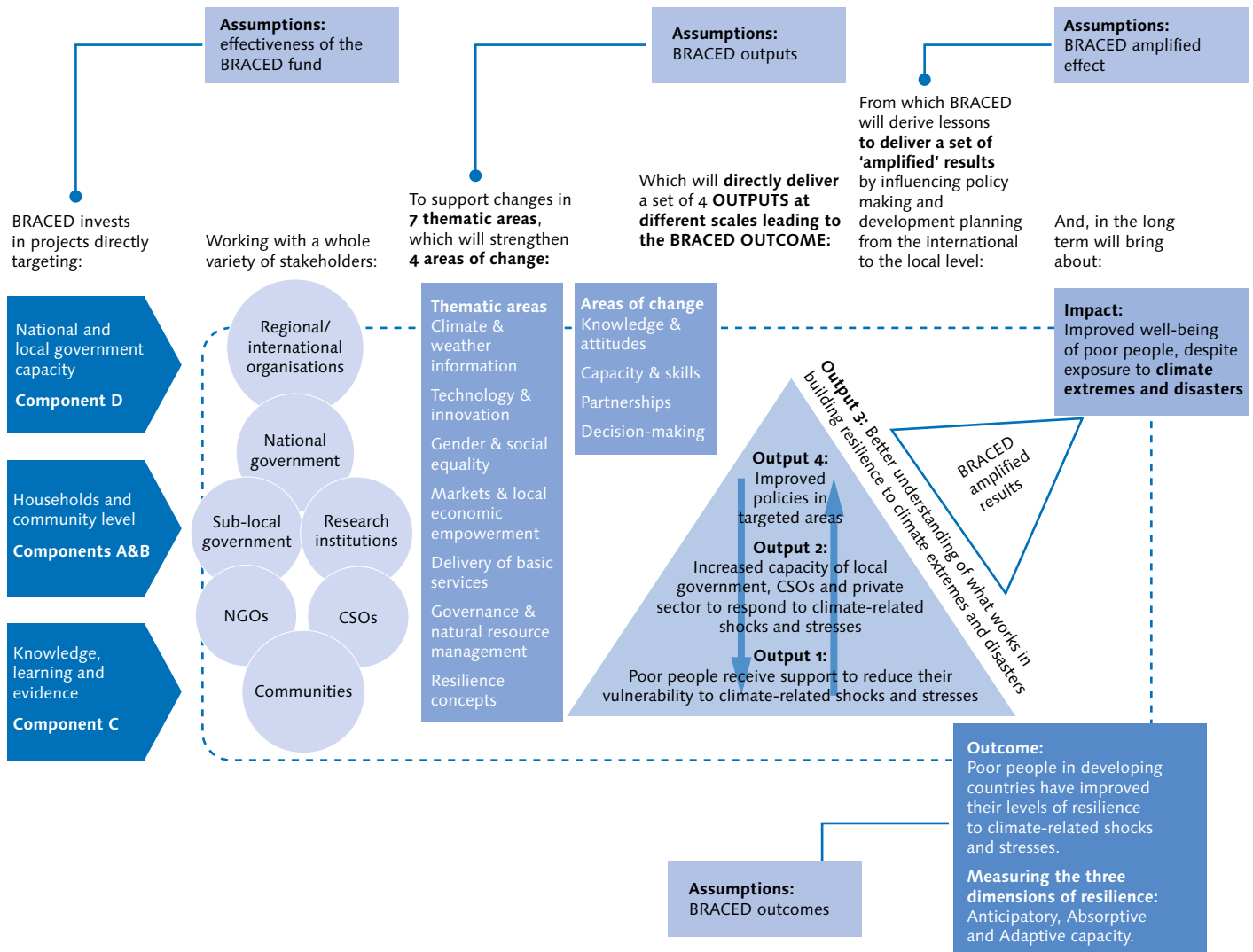
'By providing access to and training in the use of improved seeds (*intervention*), in a context where output markets are functioning and accessible (*context*) this results in reducing farmer risk and increasing their confidence in using improved seeds (*mechanism*), leading to improved yields and productivity (*outcomes*).'

'By supporting access to savings and loans groups and providing financial training, e.g. budgeting (*intervention*) in a context where women have poor access to financial services and depend on high interest, informal loans during times of stress (*context*) women recognise the value of savings and loans (*mechanism*), are actively saving and providing loans to one another (*output*), and are able to accumulate assets, invest and reduce stress in times of crisis (*outcomes*).'

The realist approach therefore provides us with useful concepts and framework to guide the evaluation activity. The focus on contexts and the mechanisms that result, leading to particular outcomes helps us to ask the right questions to address the 'why?' and the 'how?'. The idea of layering (or, in effect, sequencing) the theories and ICMO configurations means that we can more easily reflect the realities of project activities on the ground. This all contributes to a detailed analysis of the implementation of the BRACED programme through the projects, generating insights for further exploration and 'testing' at the final evaluation.

⁵⁰ Building on learning from the BCURE evaluation experience with realist evaluation (Itad is conducting a three-year realist impact evaluation of DFID's programme Building Capacity to Use Research Evidence (BCURE): www.itad.com/projects/evaluation-of-approaches-to-build-capacity-for-use-of-research-evidence-bcure/

Annex 3. BRACED Theory of Change (March 2015)



The narrative underlying the Common ToC hypothesises how the programme will contribute to change. The central hypothesis of the programme is that:

If investments are made to:

- i. Directly support poor people to become more resilient to climate extremes and disasters; and
- ii. To improve capacity of developing countries and regional organisations to plan for (un)expected frequency and severity of climate extremes and disasters; and
- iii. To generate learning and evidence from this support.

Then not only targeted communities will be more resilient, but also:

- iv. There will be a better understanding of what works and what does not work in building climate resilience.

This will result in:

- v. Improved policies and institutions at the national, subnational and local levels and a better integration of disaster risk reduction, climate adaptation and development programmes. This will lead, in the long term, to improving the wellbeing of millions of people despite exposure to climate extremes and disasters.

The core assumptions of this ToC link to possible mechanisms – actions and processes (both within and outside the sphere of control of the IPs) – that will enable the project to achieve its outcomes and impacts:

Assumptions: BRACED outputs

- Improving knowledge and capacity leads to changes in practice and action.
- Learning will be a driver of the BRACED programme and BRACED IPs will apply the learning gained to improve their projects and maximise impact.

Assumptions: BRACED outcomes

- Improving climate and disaster risk management leads to better developmental outcomes.
- Improving access to climate and weather information, including early warning systems, strengthens resilience.
- Improving basic service delivery in different sectors strengthens household resilience.
- Improving access to markets (physical/regulatory systems/pricing information, etc.) for smallholders and other producers strengthens resilience to climate extremes and disasters.
- Lessons from projects about which approaches work, and in what contexts, can influence policymaking and development planning in national and local governments, regional and international initiatives.

Annex 4. Programme theories from the MTR

A BRACED change proposition for the resilience-building projects (Components A and B) was derived by the Evaluation team from the BRACED ToC:

By investing in 15 projects directly targeting households and communities, working with a whole variety of stakeholders, BRACED will support changes along seven themes: Climate and weather information; basic services, including social protection; gender and social equality; technology and innovation; markets and local economic development; governance and natural resource management; resilience metrics and concepts. This, in turn, will enable change to happen in four areas: knowledge and attitude; capacities and skills; quality of partnerships and decision-making processes. It will lead, at different scales via a set of four outputs, to the BRACED outcome of poor people in developing countries having improved levels of resilience – measured along three dimensions: anticipatory, adaptive and absorptive capacity – to climate-related shocks and stresses.

An overarching programme theory reads as:

Investing in directly supporting poor people to become more resilient to climate extremes and disasters, improving the capacity of developing countries and regional organisations to plan for (un)expected frequency and severity of climate extremes and disasters, and generating learning and evidence from this support means that **improved knowledge and capacity will lead to changes in practice and action**. Targeted communities will be more resilient, and there will be a better understanding of what works and what does not work in building climate resilience. This will result in improved policies and institutions at the national, subnational and local levels and a better integration of disaster risk reduction, climate adaptation and development programmes. This will lead, in the long term, to improving the wellbeing of millions of people despite exposure to climate extremes and disasters.

Programme theories for BRACED projects' main activity areas

For the different activity areas, the Evaluation team derived specific programme theories, drawing on BRACED project documents (project proposals, annual reports, MTR reports). We do not necessarily know what mechanisms will be in effect, but by intervening in response to local context our ToC anticipates that farmers'/project participants' behaviour will be successfully changed.

Agriculture and livestock management (e.g. agro-pastoralist field schools; training in vegetable growing; poultry rearing; provision of improved seeds): By offering support to farmers in ways that respond to their context, they will change their behaviour to learn new approaches, develop their skills in a range of agricultural production activities including livestock and animal husbandry, leading to both diversify enterprises and increase productivity and production, which could lead to increased food consumption (volumes and varieties) and/or sales. Such improved livelihoods are expected to be more resilient to (climate) shocks and stresses and will minimise farmers' vulnerability to the effects of climate change and climate extremes.

Health and nutrition (e.g. traditional birth attendant training; support to health centres; support groups for mothers; training volunteer community health workers): By offering support to project participants in ways that respond to their context, they will change their behaviour to learn about, understand and carry out improved health and nutrition practices, contributing to improved health and nutrition outcomes. This is expected to improve overall wellbeing, reduce vulnerability to shocks and stresses, and contribute to people's reduced vulnerability to the effects of climate change and climate extremes.

Water supply (e.g. watershed management; latrine construction; provision of boreholes): Providing technical and other support for the supply of water in ways that respond to their context will support farmers to change their behaviour to improve watershed management. This will ensure households have access to sufficient amounts of clean water. This, in turn, will contribute to improved health and nutrition as well as water for productive needs, improving welfare and resilience to climate shocks and stresses.

Natural resource management (e.g. run-off management; regeneration training; cookstove technology training): By supporting participant households and individuals in a range of aspects of natural resource management in ways that respond to their context, they will change their behaviour to manage natural resources more effectively. This will, in turn, support rural production, contributing to strengthened and diversified livelihoods activities, increased incomes and enhanced resilience to climate shocks and stresses through sustaining the resource base that provides ecosystem services.

Financial services (e.g. establishing and supporting savings and loans groups; training savings groups in bookkeeping and business planning): By helping poor, rural people, particularly women, to access loans and savings products in ways that respond to their context, it is expected that they will establish micro-businesses or have an increased ability to manage daily financial demands. Training is given to interested, poor individuals to form groups and/or on basic financial or business skills. With this support, people are expected to form saving groups and the savings would be loaned to members. Anticipated behavioural change includes loans used to manage household expenses such as school fees or health fees or to finance micro-business start-up. Savings and loans are also used to manage shocks and unexpected events such as illness and bereavement. In the longer term, IPs hope to facilitate sustained access to financial services, business development as well as household stability or developmental growth through increased incomes, savings or expenditures on the education of children.

Entrepreneurship and small business development (e.g. women's networking training; connecting clean energy suppliers with retailers): By providing participants with business skills or support to develop a new market or product in ways that respond to their context, it is anticipated that behaviour will change, with moves from farming or livestock activities to other businesses. As a result, small, sustainable business will develop. These businesses are assumed to help insulate incomes from climatic shocks by providing alternative sources that are not as susceptible to climate impacts.

Planning and government capacity building and policy influence (e.g. establishing climate adaptation committees; training government officials on climate proofing; supporting township development planning): By supporting community organising, local planning processes, and building the knowledge and skills of local and subnational governments in ways that respond to the context, BRACED project support will influence national policy and practice related to managing the impacts of climate extremes and disasters. This will lead key government actors to: (i) change their behaviour to integrate climate and disaster risk, and community priorities into local planning and budgeting process; (ii) improve local capacity and stimulate action to plan and manage climate extremes and disasters; and (iii) change government behaviour, increasing responsiveness and accountability.

Disaster risk management and early warning (e.g. setting up early warning systems (EWS); strengthening quality and accessibility of climate forecasts): By working with women and men in communities, local and national institutions, to reduce losses (agricultural and property) from climate hazards in ways that respond to their context, the project will strengthen local and regional disaster risk management institutions, improving knowledge and provision of climate information. This will change behaviour towards the safeguarding of assets and livelihoods, leading to reduced loss from hazard events.

Gender and inclusion (e.g. gender equality training; gender-responsive budgeting processes; women's empowerment training; community-level gender analysis): By strategically targeting activities to ensure that they address the practical needs of women and men, working with women and men and working with staff and partners to build organisational capacity for change in ways that respond to context, the BRACED programme seeks to effect behavioural change that will in turn change gender stereotypes and norms, strengthen women's voice and decision-making power within households, communities and government institutions. By recognising that vulnerability and resilience are shaped by social norms and power relations, transforming inequality is an important part of the broader process of building resilience.

Annex 5. ICMOs from the MTR

Agriculture activities

Increased food supply, dietary diversity and incomes

ICMO A1

In contexts where there are strong traditional institutions and weak local government (C) and men depart leaving women to fend for themselves for a large portion of year (C), by providing capacity building and training in vegetable growing in Sudan (a total of three all-women groups trained) (I), working with strong traditional local institutions (I) and providing the training to women (I), as an important dry season activity (I) has changed behaviour resulting in: more vegetables grown for consumption and sale (Output), leading to direct beneficiaries consuming vegetables (O) and selling vegetables to raise cash for immediate needs and investment in other business activities e.g. livestock (O2).

In addition, Outcome 2 changes the context in the way that it increases local supply of vegetables to the wider community (O).

Source: BRICS MTR Report Annex 1; BRICS KII.

ICMO A2

In areas that were largely dependent on rain-fed sorghum and millet production (C), training on food processing and storage, business management, grant support for market garden development and other livelihood diversification (I), creating space and time for women to meet (I) and build relationships (I), and where technical training is developed in consultation with women on their needs (I) and women are satisfied with the intervention (M). This means that women acquire the skills to manage their business and the grant allocation (output), local processing and value adding takes place (O), increasing local stores of preserved foodstuff (O). This contributes to improvements in women's income (O) and greater diversity of local foodstuff (O).

Source: RIC4REC (MTR Report).

ICMO A3

Building knowledge and capacity at household level for farmer-managed natural resources to cultivate moringa and fruit trees – providing training in nursery establishment and propagation techniques that are more reliable (I), where previously farmers could only propagate from seed (C). Targeting areas with a water source (C) and where community natural resource groups are already established (C), with knowledge and active concern about desertification (C), and the project is operating within a traditional context at the village level with deeply entrenched gender norms (C) AND training is hands-on (I), follow-up demonstration is rapid (I) with frequent visits by project staff (I), using technology that is more reliable (IM), with a sanctioning system in place (I), combining an immediate income stream with long-term benefits (I). This means

that demonstration plots and nurseries have been established (Output), people are propagating using improved practices (Output) and trees have been planted (Output) with cuttings being sold providing extra income to households (O).

Source: BRICS (MTR Report).

ICMO A4

Trainings and provision of improved seeds (essential oil and vegetable) (I), where projects are operating in areas with limited market access for agriculture and essential oils (C), and farmers on the whole were producing vegetables before the project (C), [farmers have taken up climate-smart technology] (C) AND farmers like the project approach (M) [they find it credible, they like the integrated approach/cycle of support, like the input support, they like the training on nutrition/health – (I)]; AND can see benefits of potential increased income due to increased land in cultivation (M); AND farmers like the practical way the training is carried out (M), so it is easy to carry out the technique (M). This results in farmers scaling up production (output) leading to (94%) farmers now cultivating new vegetables they were not doing before; and increased annual incomes from sale of vegetables and essential oils (average income of £114 for vegetables and £183 for the oils) (O).

Source: Anukulan (MTR Report).

ICMO A5

Project support to establish distilleries, collection centres for vegetables (I), operating in areas with limited market access for agriculture and essential oils (C); [farmers have taken up climate-smart technology] (C) where the project is using and mobilising existing (forming and reforming) farmers groups to run the collection centres (M), women are well-represented on distillery and marketing committees (M); farmers are confident their crop will sell at a reasonable price (M). This results in distilleries and vegetable collection centres operating (output) and increased annual incomes from sale of vegetables and essential oils (average income of £114 for vegetables and £183 for the oils) (O).

Source: Anukulan (MTR Report).

Health activities

Improved health outcomes via health and nutrition training

ICMO H1

Traditional birth attendant training (I) in highly patriarchal societies with low levels of literacy among women (C) with high maternal mortality rates (C), a high impact of death on household resilience (C) and an extremely low ratio of health centres to beneficiaries (C), ... [a]voiding rainy season for training (IM) [...] simple messages and clear images on materials left with communities (I) and ... pace of training not too fast (I). This lead to behavioural change that results in improvements to the care of pregnant women (O).

ICMO H2

Supporting government ministries (health, agriculture, livestock and environment ministries) – strengthen advisory services to deliver nutrition and health (I) ... in highly patriarchal societies with low levels of literacy among women (C) with high maternal mortality rates (C) and a high impact of death on household resilience (C) and an extremely low ratio of health centres to beneficiaries (C)... location is not a barrier to accessing health centre due to project support (I). This leads to behavioural change that improves health and hygiene practices (O).

ICMO H3

Volunteer community health workers (I) in highly patriarchal societies with low levels of literacy among women (C) with high maternal mortality rates (C) and a high impact of death on household resilience (C) and an extremely low ratio of health centres to beneficiaries (C), ... AND volunteer community health workers are recruited and work at community level (trained and organised by project) (I)... dedicated community facilitator to a small number of villages (I) ... pace of training not too fast...(I) avoiding rainy season for training (I). This triggers behavioural change that leads to improvements to the care of pregnant women (O), improved health and hygiene practices (O) and higher levels of knowledge on exclusive breastfeeding (O). This is premised on the theory that health is a critical determinant of household-level resilience, and improved health will have flow-on effects at community level.

ICMO H4

Care and mothers' support groups (I) in highly patriarchal societies with low levels of literacy among women (C) with high maternal mortality rates (C) and a high impact of death on household resilience (C) and an extremely low ratio of health centres to beneficiaries (C), ... AND women like coming together and peer-to-peer support (M) ... simple messages and clear images on materials left with communities (I) ... supports behavioural change. This leads to improved health and hygiene practices (O), higher levels of knowledge on exclusive breastfeeding (O).

Source: BRICS (MTR report and annexes); BRICS KII.

Water activities

Watershed management and improved water availability impacts on health outcomes

ICMO H5

Watershed management/WASH activities to ensure sufficient access to water [latrine construction; setting up water user committees; water storage] (I) in contexts where people are habituated to illness and think that it is normal (C); the project is building on experience from another programme (C); AND use of incentives (I) hands-on training of water committees with chance to practice repairs (I); follow up with water user committee over long period to support them to take up responsibility for the boreholes (I)... project has

invested in spare parts network (I) making sure that communities' awareness and understanding is raised so that they know there is a spare parts shop and will use it (I); village facilitators and community facilitators are in and come from the villages (I); and effort to concentrate activities in villages (I). This leads to improved water availability (boreholes) (O), supporting dry-season agricultural activities (vegetable gardens, fruit trees and household consumption) (O).

Improved water availability (O) complements ICMO H6:

ICMO H6

Watershed management/WASH activities [hygiene education (handwashing) and home visits by community facilitators on sanitation] in contexts where people are habituated to illness and think that it is normal (C) and the project is building on experience from another programme (C), AND village facilitators and community facilitators are in and come from the villages (I); and effort to concentrate activities in villages (I). This result in behavioural changes that leads to reduced diarrhoea (O).

Source: BRICS (MTR report and annexes); BRICS KII.

Financial services

Improved access to and availability of cash

ICMO F1

Formation of savings and loans groups (I) in a context where women are vulnerable to extremes of climate and need immediate access to liquidity (C) and their business are viable (C)... awareness is raised about the value/use of group savings and loans. This reasoning (M) leads to behavioural change whereby people are saving and accessing loans (O) resulting in people being able to pay school fees, healthcare/medicine costs, achieve income smoothing (O).

Source: CIARE MTR report.

ICMO F2

Individual and collective business plan support to village, savings and loan associations (VSLA), where groups already practising regular savings and loans (C) ... and people already have their own individual businesses (C) ... people choose to run the business as a group (I) ... use profits individually (I) ... proven track record developed (M) ... increased financial acumen (O) ... group members do not experience shock (C) ... collective savings capacity increases (Output) ... groups are able to access government loans and grants (Output) ... households diversify their livelihoods (collective business proceeds invested in personal business) (O) ... This results in ability to: pay school fees (O); pay medical bills (O); savings for hard times (O).

Source: PROGRESS MTR Report.

Gender

Voice and decision-making power in the household

ICMO G₁

Life skills course (I) where the context is highly patriarchal (C) with low levels of literacy among women (C) and men may be absent due to lean season migration or split-habitation between multiple spouses (C), discriminatory gender norms are extremely entrenched even within the project (C) AND ...having a dedicated gender advisor to design training modules...(I) ...investing in staff as change agents...(I) ... working with both women and men...(I), starting 'slow and steady' (I). This leads to women talking more openly about the pressures that they both feel at household level (M). This results in household commitments to change, particularly around the sharing of household tasks, in ensuring that women have enough resources to cope when the men migrate (O).

Source: BRICS MTR Report; KII.

Improvements in girls' wellbeing

ICMO G₃

In-school girls' and boys' clubs with education and mentoring activities/ out-of-school girls' clubs with savings (VSLA) activities ... where there is an upward trend in the length of women's workday (C); girls miss lessons due to domestic responsibilities and menstrual cycles (C); where early marriage is common during times of drought (C) and illiteracy is high, school completion rate is low, and girls' education is low priority (C) rates of gender-based violence and female genital mutilation are high, and men blame women for gender-based violence (C); quality, motivated mentors understand the curriculum (I) AND ... networks are built and girls know who they can ask for help (M) ... girls and boys can see benefits in participating in club activities (M); young people build relationships with each other and their mentors (M); gender champions are working in communities to facilitate dialogue on gender-based violence (M). This results in: girls in the in-school groups are now reporting attending school when they have their period, and feeling that their hygiene has improved (O); girls are feeling encouraged to finish their education (O); girls in both in- and out-of-school groups feel more confident and empowered (O); and girls are saving money (O).

Source: PROGRESS MTR Report.

Climate information

Using seasonal forecasts to adapt production strategies

ICMO N1

Supporting the National Agency for Civil Aviation and Meteorology to strengthen and expand reach of seasonal forecasts (I) where the National Agency for Civil Aviation and Meteorology already produces seasonal forecasts (Senegal) (C) and where characteristics of the rainy season vary year on year (C) AND ... influential women are taking part in field tests on the use of weather and climate information (M) ... government departments are sharing forecasts knowledge in workshops (linking forecasts to advice about the type of seeds to sow) ... (output). This means that forecasts are strengthened and available across greater number of areas (Output) and there has been ... changed knowledge and behaviours: farmers are using seasonal forecasts to adapt production strategies to the type of rainy season (O).

Source: DCF MTR Report.

Annex 6. Synthesis approach

Coding

The IP FE reports were loaded into and coded in Dedoose, cloud-based computer-assisted qualitative data analysis software.

The foundation of the coding system was informed by the programme ToC, the projects' theories of change and the hypotheses/assumptions/CMOs the IPs identified in their inception reports as those they were going to explore in the FE. These were used to generate an initial list of codes. Two coders then coded the text of all reports and annexes using an iterative process in which further codes were added as the need for them became evident in the report.

We followed a realist evaluation coding developed by Dalkin et al (2015)⁵¹ which is designed to keep data related to ICMO configurations together. In this case, we used outcomes as the primary unit of analysis, coding excerpts to ensure that as much important information about the project interventions, important context and mechanisms that led to an outcome are kept together and captured under the outcome code. To allow for further interrogation, we also coded important intervention factors and barriers and enablers (mechanisms). This meant that one text excerpt was typically coded against multiple codes. This process meant that data could be readily interrogated during subsequent analysis.

Initial codes for outcomes generated in the synthesis workshop are given in the below table:

Initial Outcome Codes

OUTCOMES			
Institutional change (local/community – formal and informal)	Institutional change (governance – national – formal)	Climate information and planning (and institutions)	Change for women and children
<ul style="list-style-type: none"> • Empowered communities • Peace/security • Social support and social capital • Local/CBO strengthening • Improved community gov relations • Improved decision making • Local government capacity 	<ul style="list-style-type: none"> • Policy change national level • Budget leveraged • Formalised/registered tenure and institutions • Private sector accountability (capacity) • Government ownership • Markets 	<ul style="list-style-type: none"> • Access to climate info • Uptake of climate info • Local/municipal planning (i) • Early warning/ disaster committee (i) 	<ul style="list-style-type: none"> • Women's participation in decision making • Changing norms (gender) • Improved relationships and/or solidarity among women • Engagement of women in projects • Reduced workload for women
Higher level outcomes/impact	Nutrition etc	Food security (link to nutrition)	Income
<ul style="list-style-type: none"> • Increased wellbeing • Ability to cope with shocks and stresses 	<ul style="list-style-type: none"> • Improved sanitation • Improved diet and nutrition • Healthcare/improved health 	<ul style="list-style-type: none"> • Food security and availability 	<ul style="list-style-type: none"> • Diversified income • Increased Income

⁵¹ Dalkin, S.M.; Greenhalgh, J.; Jones, D.; Cunningham, B. and Lhussier, M. (2015) 'What's in a Mechanism? Development of a Key Concept in Realist Evaluation' in *Implementation Science* 10.1: 49. <https://implementationscience.biomedcentral.com/track/pdf/10.1186/s13012-015-0237-x> (accessed 14/06/18).

Code groupings and hierarchies were organised in the following way:

- Outcomes (OU__)

All outcome codes started with (OU_), and elements of the related ICMO configurations coded to that outcome.

For the initial coding, we coded all outcomes to one layer, creating more of a hierarchy (process outcomes, resilience outcomes etc) over time.

Mechanisms and Contexts were kept together with outcomes. Examples of mechanism codes are:

- ME_Trust in project
- ME_Participant Capability
- ME_Understanding of Context
- ME_Use of practical examples
- ME_Understanding of benefits of intervention

Context codes were a subset "barriers and enablers".

- Barriers and Enablers (BE_)

Linked to mechanisms, these are important barriers and enablers that contribute to an outcome. Examples include:

- BE_Government Capacity
- BE_Social Norms
- BE_Motivated Government Partners
- Intervention Factors/Modality (IN_)

These are intervention factors and modalities that are important to how an outcome was achieved.

- Beneficiaries (for Whom WH_)

Used to identify for whom the project was working or not.

- Lessons/Recommendations (RE_)

Used for coding lessons/recommendations from the IP FE reports and the reports of other BRACED partners.

Thematic analysis

The FE synthesis is based on a thematic analysis of the data from each IP FE. This involved identifying, examining, and recording patterns (or 'themes') within the data, which are important to describe what is happening on the pathway toward achieving strengthened resilience. Under the realist approach, themes are focussed around mechanisms and related intervention factors. By taking a comparative case study analysis approach (Goodrick, 2014), we analyse and synthesise similarities, differences and patterns across cases that share a common focus or goal in a way that produces generalisable knowledge to respond to the synthesis evaluation question of how, why and for whom do BRACED projects work (or not) in building and strengthening resilience in particular contexts. Clustering by outcomes enabled us to compare the different pathways towards achieving outcomes, analysing thematically by mechanisms and contexts that helped to generate change, and conducting a light content analysis of the emerging themes.

Annex 7. Strength of evidence in FE reports

The below table summarises the strength of underlying evidence given in the IP FE reports, **for conducting a realist analysis and synthesis of the data**, considering both outcomes and contribution.

Each report was systematically reviewed, with some judgment applied in the case of 'richness' of the reports, with a 'rating' given for each project dependent on the following:

Implementation

- Scale and scope of outcomes/findings.

Methodology

- Scale and scope of FE – sample sizes, selection process. Does the scale and scope of the FE data collection reflect/do justice to scale and scope of the project? Quality of qualitative and quantitative sample selection and data collection process.

Analysis

- Quality of report in evidencing outcomes (specific, stepping away from rhetoric; the right metrics; plausible and robust attribution or contribution story; applying a realist 'lens'); triangulation of data sources.
- Strength of report – richness, how reflective and critical.

Strength of Evidence in BRACED project FE reports

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
Vivre avec l'eau	<p>Implementation: 10 communes in the peri-urban regions of Dakar, Senegal.</p> <p>Methodology: i) Interviews with implementing partners (CRES, EVE, Groupe Senghor, NIYEL); ii) FGD with a) project partners b) beneficiaries (one focus group per category of actor in each of the 10 communes). Scale and scope unclear. Sample selection procedures unclear.</p> <p>Analysis: FE report focus on outputs rather than outcomes; very little discussion on mechanisms; some useful information about what enabled or constrained the effectiveness of implementation.</p>	Low
Livestock Mobility	<p>Implementation: Niger, Burkina Faso, Mali, Sénégal; Mauritania. Build resilience among 905,000 pastoral and agro-pastoral women, men and children by securing 1,700 km of strategic trans-border corridors.</p> <p>Methodology: Quantitative data from project monitoring reports and survey of 385 families and 131 women in year 1, 61 families in year 2 of the most vulnerable, and 59 in year 3.</p> <p>Qualitative sample of 345 participants (inc. 46 women) from five of 12 project implementation sites and partners; for other sites a delegation of project representatives (including partners and participants) travelled to the city to talk to Evaluation team.</p> <p>Analysis: According to the project outcomes and hypotheses; Limited analysis of the links between outcomes and resilience; Some analysis of differential impacts by gender.</p>	Low–Medium

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
Decentralising Climate Funds	<p>Implementation: Enhance resilience to climate change among vulnerable communities in three cercles of Mali and four departments of Senegal.</p> <p>Mali: Implemented in three cercles in the 5th administrative region of Mopti. It reaches an estimated 408,000 direct beneficiaries (47% of whom are women) out of a total population of around 931,000 (in 2013). Beneficiaries represent 44% of the population in the intervention zone.</p> <p>Senegal: Implemented in four departments in the region of Kaffrine. It reaches an estimated 362,000 direct beneficiaries (53% of whom are women) out of a total population of 517,000 in 2013. Beneficiaries represent 70% of the population in the intervention zone.</p> <p>Methodology: Investigations final household survey measure the effects on the DCF resilience (KPI4), with 520 interviews in 17 villages in Mali and 425 interviews conducted in 18 villages in Senegal. Reference database expanded to the final survey including the villages concerned by investments (10/17 in Mali in Senegal 7/18).</p> <p>The final surveys of local authorities (three circles in Mali/eight towns, four county councils in Senegal) and technical services (four technical services in Senegal) to measure their capacity to cope with climate change and use of the grid TAMD rating, however TAMD and household survey results were not comprehensively integrated into the report.</p> <p>Analysis: Detailed and thoughtful analysis on the results delivered by the project, particularly the links between project activities, outcomes and resilience. In some parts of the report, the mechanisms are clearly reported, and the views of a range of stakeholders are considered. In others, the presentation of evidence is quite weak.</p>	Medium
RIC4REC	<p>Implementation: Three regions of Mali (Koulikoro, Segou and Mopti) and 12 circles: Banamba, Kolokani, Nara, Macina, Niono, San, Tominian, Mopti, Koro, Bankass, Douentza and Youwarou. Project activities were implemented in 280 villages (communities). These communities are distributed across 60 municipalities within the 12 districts.</p> <p>Methodology: A two-day kick-off brainstorming workshop was organised with key informants to confirm or challenge the different assumptions and results obtained. This meeting involved the various stakeholders such as mayors, village leaders, women leaders, state technical service agents, implementing partners (AMASSA Africa Verte, GFORCE), Orange Mali, agents of the CTFC (Centre for the training of local authorities) and DGCT (Directorate-General for Local and regional authorities). Focus Group Discussions: number unclear.</p> <p>End-line survey conducted in eight villages from the three intervention regions of RIC4REC, two to Koulikoro, two to Ségou and four to Mopti: 399 households in total.</p> <p>Analysis: There is good analysis of results delivered by the project; difficult at times to understand what an isolated example is and what a representative sample across the whole project; in some instances, outputs, resilience and wellbeing outcomes are jumbled. The end-line survey contains useful supplementary information.</p>	Low–Medium
Anukulan	<p>Implementation: Implemented in six districts of Nepal: Kailali, Kanchanpur, Dadeldhura, and Doti (currently in Province 7), Bardiya (currently in Province 5) and Surkhet (currently in Province 6); aimed to improve food security and nutrition, and increase annual incomes by an average £140 for 100,000 households, benefiting more than 500,000 people, through climate resilient farming systems and diversification of livelihoods.</p> <p>Methodology: Quantitative data collected through household surveys, project's periodic progress reports, case stories and databases, while qualitative data was collected using focus group discussions (FGD) and key-informant interviews (KII) with varied stakeholders. Administered across all project districts.</p> <p>600 households in household surveys.</p>	Medium

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
Anukulan (cont.)	<p>The sample VDCs – 10 treated and 10 control – which have been selected randomly for quantitative survey as given above were the sample VDCs for FGDs and KIIs.</p> <p>33 FGDs and a total of 50 KIIs were conducted.</p> <p>Analysis: Triangulation between data sources; robust sampling process for quantity and quality; statistical confidence included, however difficult at times to distinguish the evaluator's opinion from data, limited presentation of qualitative data.</p>	
BRICS	<p>Implementation: Goz Beida (Sila region) in Chad, and North, West and South Darfur in Sudan, focusing on building community resilience amongst 280,000 people to the effects of regular droughts.</p> <p>Methodology: KII – 18 interviews in Chad and 22 interviews in Sudan, covering Concern and other consortium partners, local government and authorities, development actors, community members, volunteers, committees.</p> <p>Workshop – 13 Concern programme staff, Geneina, Sudan; 12 Concern programme staff, Goz Beida, Chad.</p> <p>FGD – In Chad, around 98 participants across eight focus groups covering community committees, change agents and community members; In Sudan, around 90 participants across nine focus groups covering two community committees, one community member, six community volunteers or members.</p> <p>Community visits: In Chad, visits to four communities (Bouroukou, Gregou, Amal Koura, Zabout), one rural resource centre and two health centres (Koutoufou and Karo); In Sudan, visits to four communities in West Darfur: three settled (Rahad Garad, Maroro Aine, Bangadeed West), one pastoralist (Bej Bej).</p> <p>Analysis: Systematic desk review of available literature; harmonisation workshop prior to data collection; validation workshops post primary data collection; triangulation with the quantitative BRICS baseline and end-line data; good selection of respondents.</p>	Medium–High
Sur1M	<p>Implementation: Niger; Mali.</p> <p>Methodology: Extensive quantitative (quasi experimental in Niger) household survey data collection. In Niger : 1,472 respondents from 60 villages (i.e. 12 villages/ZME x 5 ZME); In Mali : 768 + 778 respondents from 36 villages (i.e. 12 villages/ZME x 3 ZME). Qualitative work: Mali 780 respondents and Niger 603 respondents across a range of qualitative tools, including FGDs, KIIs, structured and semi-structured questionnaires.</p> <p>Analysis: The scale and scope of the evaluation are clear. Quantitative data are of high quality. For qualitative work, there is no description of the analytical approach, including assessing contribution of the project activities to the outcome. While there has been a lot of primary data collection, the evidence is not well referenced throughout the report so it is not clear where the evidence for the assertions are coming from in many cases. The report seems to be based mainly on quantitative data and focuses almost exclusively on what happened, not how, why, for whom and in what contexts. Follow-up via email clarified many of these potential shortcomings.</p>	Medium
Market Approaches to Resilience	<p>Implementation: Afar, Southern Nations, Nationalities, and Peoples' Region (SNNPR) and Somali regions of Ethiopia, aiming to directly benefit an estimated 340,000 people. Worked across 20 Woredas (districts).</p> <p>Methodology: Sequenced design – document review; analysing project record data on the quantitative outputs and outcomes; over 60 semi-structured interviews with project staff, clients and beneficiaries in 12 of the 20 project Woredas across the four project areas. Clear and robust selection criteria for study sites/Woredas for the FE; clear selection criteria for qualitative respondents to represent a range of perspectives. Good consideration of contribution/attribution.</p>	High

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
Market Approaches to Resilience (cont.)	<p>Analysis: Quantitative project output and outcome data was disaggregated at the Woreda (district) level, so that when going to the field and interviewing people there was context-relevant data to work with/inform the qualitative data collection; triangulation – quantitative project record data cross-checked with the qualitative reported outcomes where possible; rich and thoughtful analysis. Strength of evidence for the CMOs (change pathways) is clear.</p>	
Myanmar Alliance	<p>Implementation: Myanmar. Around 17,000 vulnerable community members with at-risk livelihoods from 155 villages will receive assistance in the form of microfinance, climate resilient agriculture or resilience building interventions. Around 160,000 community members from 155 villages will benefited from receiving assistance through the resilience model. Around 172,000 community members in eight targeted township will be exposed to BBC Media Action media output.</p> <p>Methodology: Across four communities, 41 KII with relevant informants within and outside project; 12 FGD. Stratified random sampling approach. This is detailed in the inception report. The aim was to assess four of the eight targeted townships and at least two villages in each of these.</p> <p>Analysis: Thoughtful, well-balanced analysis. Strong reflection on implementation and intervention design throughout report, and very reflexive in terms of attributing performance to the way in which the IP/consortium did things, and lessons learnt.</p>	Medium
IRISS	<p>Implementation: The target beneficiaries are agro-pastoralist and farming communities in two sites in the Bahr el Ghazal region: Aweil North and Aweil West counties, located in the north of the region in the former state of Northern Bahr el Ghazal (NBeG) – currently Lol State under the administrative restructuring – and Tonj South county, now in Tonj State, formerly Warrap State.</p> <p>Methodology: KII 25 total. Six Local Government – four Aweil N, two Tonj S; one with Central Government; one with Project Manager – Tonj S; six with field staff – one Aweil, five Tonj S; eight with consortia Focal Persons and senior management; x3 with champions and observers. SSI = three total: two with lead farmers, Aweil; one with SEC teachers, Aweil. FGD 12 total: six with APFS/VSLA members: three in Aweil N&S, three in Tonj S; four with CRPC members – two in Aweil N&S, two in Tonj S; two with project staff – one with management, one with field staff, Aweil.</p> <p>End-line survey – primary quantitative research with community members in target areas using the FAO SHARP tool – end-line sample size: 270.</p> <p>Analysis: Document review; baseline and end-line surveys used different samples of the beneficiary population. The baseline sample size was 669 and the end-line sample size was 270. External enumerators were hired to carry out the SHARP survey in order to eliminate confirmation bias, power dynamics and cognitive bias as much as possible from the data collection process. SHARP analysis was conducted by the IRISS-BRACED MEAL Coordinator, the external consultant, and an FAO analyst. Separate reports were made of results by BRACED as well as integrated with qualitative findings for FE analysis and reporting by the external evaluator. All qualitative research was conducted by the external Evaluation Team Leader assisted by an independent translator. Detailed notes from KIIs, SSIs and FGDs taken, typed up and sent to the Evaluation team's researcher as research was ongoing. The researcher processed, coded and analysed data. The write-up of individual reports reflected the first level of analysis drawing from the Interpretative Phenomenological Analysis (IPA) technique. Desk review to inform design of qualitative research tools.</p>	Medium
Changing Farming Practices/BRES	<p>Implementation: 620,000 women, children and men in the provinces of Kourwéogo, Oubritenga, Sanmatenga and Bam, Burkina Faso. Provided a basic package of activities combined with a primary production activity plus activity targeted at women in each village.</p> <p>Methodology: Mixed methods.</p>	Medium

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
Changing Farming Practices/BRES (cont.)	<p>Quantitative evidence from project monitoring database and an annual resilience survey conducted by an external consultant in 30 villages covering the four provinces with a target of reaching 843 households.</p> <p>Qualitative evidence using FGDs in six villages using outcome mapping approach.</p> <p>Analysis: Thoughtful analysis carried out by the project team and an external consultant, looking at outcomes in each work package. Used a range of project data to triangulate findings, presenting outcomes using outcome mapping 'expect to see, like to see, love to see' categories. Good gender disaggregation but limited presentation of participant voice.</p>	
Zaman Lebidi	<p>Implementation: Intended to benefit roughly 1.3 million people in 353 villages across 13 communes (Samba, Latoden, Bagare, Tougouri, Zéguédéguin Department, Yalgo, Bouroum, Nagbingou, Pensa, Pissila, Bilanga, Bogandé, Piéla) in Burkina Faso.</p> <p>Methodology: Sampling strategy for villages – project intervention area covered four provinces, the Evaluation team sought to sample two HI and two MI villages from each province – for a total of 16 villages. Within each province, two villages – one HI and one MI – were identified where household resilience scores experienced the greatest improvement from baseline to end-line, and conversely, two villages – one HI and one MI – were identified where household resilience scores experienced little to no change from baseline to endline¹³. The resultant long list of villages was further condensed by: (i) selecting only villages where household resilience scores had a small p-value (preferably ≤ 0.05, with the exception of three villages) – an indication of the strength of evidence (based on sample size, etc); (ii) ensuring that the final list of sampled villages included a good cross-representation of all priority activity packages considered within scope of this evaluation; and (iii) proximity of sampled villages to ensure data collection efforts were manageable and realistic in the short time period available. Sample sizes within each village are small (up to 10 households). No indication of the scale of the qualitative work in terms of number of interviews, group discussions in each location, etc. numbers of respondents, balance of male and female respondents. Therefore, it is difficult to grasp what they mean when they say "many women..." for example.</p> <p>Analysis: 'The Evaluation team did not have sufficient time before the data collection phase to do any more detailed analysis that would have allowed for validation and substantiation of quantitative observations through the evaluations' qualitative field activities. As a result, the local consultant was unable to probe villages where, say, incomes were reported to increase, or diets were reported to improve/diversify. As such, there was a lost opportunity to qualitatively learn more about some of the generative mechanisms that may have been underlying some of these important quantitative findings.' The focus seems to be on smaller numbers of interviews, however, despite this the report also says that they decided to focus on breadth rather than depth of enquiry, which limits the richness of the data.</p>	Medium
PRESENCES	<p>Implementation: In 12 rural communes of the Tillabéry region, Niger.</p> <p>Methodology: 1. Individual household monitoring semi-structured surveys (5,060); 2. Community monitoring semi-structured surveys (146); 3. Institutional monitoring semi-structured surveys (161); 4. VSLA longitudinal monitoring semi-structured surveys (1,513). Coping strategy index – baseline and end-line. Qualitative: Semi-structured interviews were conducted with 16 participants (seven PRESENCES/CARE staff and nine local authority or technical services representatives).</p> <p>Analysis: Emphasis on quantitative analysis. The report sets out clearly the data limitations related to sample sizes. Statistical analysis of the quantitative data appropriate to the sample size. Content analysis of the qualitative data. Triangulation. High level of statistical analysis to examine relationships between activity packages and outcomes, but not matched with reflection of higher level results, transformation or the value of these activities in the larger picture.</p>	Medium

PROJECT	DESCRIPTION	FE STRENGTH OF EVIDENCE RATING
CIARE	<p>Implementation: Aimed to build the capacity of 791,530 people in Ethiopia to find transformational solutions to climate variability and disasters by climate forecasting, behavioural change and sharing skills and technology. Focusing on seven primary Woredas (districts): South Omo Zone, Borena Zone, Arsi Zone, East Hararge Zone and five secondary Woredas in the Orimiya State.</p> <p>Methodology: Household Survey: 1,174 respondents, of which 56% were female (wife of head of household/female head of household), 62% from high intensity Kebeles and 38% from medium intensity Kebeles and covered six of the seven Woredas where the project was implemented. The Woreda of Arero could not be visited for data collection due to insecurity during the data collection period. From the original 1,760 baseline sample, other households could not be found due to migration. Of the 1,174 households, 984 were matched with the same baseline household. When direct comparison between households was analysed, the sample of 984 was used, however, when no direct comparison was needed the sample of 1,174 was used.</p> <p>Qualitative: 23 semi-structured participatory focus groups were conducted across four Woredas and 17 Kebeles with community-level target project beneficiaries (vulnerable household members). 13 KIIs.</p> <p>Analysis: Triangulation and validation across qualitative and quantitative data; data from other M&E processes was woven into the final evaluation and complemented the more qualitative elements of the final evaluation. Overall, a systematic analysis.</p>	Medium
PROGRESS	<p>Implementation: Operates in two countries – the Karamoja region of Uganda, and Wajir County in Kenya.</p> <p>Methodology: End-line survey; FGDs (total of 29 (Kenya=9, Uganda=20) were conducted with beneficiary groups in Uganda and Kenya. In total, 241 respondents were male (45%), and 290 respondents were female (55%). In Kenya, female respondents slightly outnumbered male respondents at 56 to 54, respectively. Uganda, which had many more FGD participants than Kenya, had 13% more female participants within the FGDs at 57% (240) of the total). KIIs: of the 12 KIIs (six – Kenya; six – Uganda) 10 were males, and three were females (one KII had two respondents); resilience capacities tool (17 Kenya; 24 Uganda); document review.</p> <p>Analysis: Combination of the FDGs, KIIs, programme documents, research pieces, and end-line results for analysis. Triangulation. The analysis would benefit from a clearer assessment of contribution and strength of evidence.</p>	Medium–High

BRACED aims to build the resilience of up to 5 million vulnerable people against climate extremes and disasters. It does so through a three year, UK Government funded programme, which supports over 120 organisations, working in 15 consortiums, across 13 countries in East Africa, the Sahel and Southeast Asia. Uniquely, BRACED also has a Knowledge Manager consortium.

The Knowledge Manager consortium is led by the Overseas Development Institute and includes the Red Cross Red Crescent Climate Centre, the Asian Disaster Preparedness Centre, ENDA Energie, ITAD and Thomson Reuters Foundation.

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