

EFFECTIVENESS IN BUILDING RESILIENCE

Synthesis report for Oxfam's Resilience
Outcome Area

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ACRONYMS

ACCRA	Africa Climate Change Resilience Alliance
BDR	Building and Deepening Resilience in Eastern Indonesia
BINDS	Building Resilient and Adaptive Communities and Institutions in Mindanao
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters
CAP	Community Action Plan
CBO	Community-Based Organisation
CCA	Climate Change Adaptation
CCCCD	Partnership for Equitable Resilience to the Impacts of Climate Change of the Coastal Communities in Deltas of Vietnam
COP	Conference of Parties
CSI	Coping Strategy Index
DRR	Disaster Risk Reduction
FAO	Food and Agricultural Organization
HARITA	Horn of Africa Risk Transfer for Adaptation
IGA	Income-Generating Activity
INGO	International NGO
LNGO	Local NGO
M&E	Monitoring and Evaluation
MEAL	Monitoring, Evaluation, Accountability and Learning
NGO	Non-Governmental Organisation
NRM	Natural Resource Management
SES	Social and Ecological Systems
ToRs	Terms of Reference
VCAN	Vanuatu Climate Adaptation Network
VPRT	Village Preparedness and Response Team
VRDTCA	Vanuatu Rural Development Training Centre Association
WASH	Water, Sanitation and Hygiene
WEC	Women Empowerment Centre

EXECUTIVE SUMMARY

As risks related to climate change, natural hazards, population growth, chronic poverty, food insecurity, and inequality intensify for the world's poorest people, Oxfam has prioritized building resilience to shocks and stresses as an important, cross cutting outcome area across its programming. Oxfam describes resilience as '...the ability of women and men to realise their rights and improve their well-being despite shocks, stresses, and uncertainty.' An overview of a sample of Oxfam's interventions reveals that these risks are real, interrupting the implementation of projects and threatening to undermine development gains.

In response to these trends, Oxfam has adopted a new conceptual understanding of resilience based on emerging research on "resilience capacities" to integrate across programmes. This report examines evidence of how Oxfam's interventions have contributed to building absorptive, adaptive, and transformative capacities. Resilience capacities aim to enhance individual, households, and communities' ability to persist in the face of shocks and stresses, anticipate evolving risks, adapt to changing environments, and transform the underlying vulnerabilities and inequalities that leave them more exposed to shocks and stresses. Key features of each capacity and associated development interventions are detailed in Section 3 of this report.

This report examines a sample of 23 projects using Oxfam's Effectiveness Reviews and Evaluation Reports (7 projects are analysed in depth through focussed case studies), both of which intend to analyse and describe how successful programmes have been in achieving their stated objectives. Effectiveness Reviews take a 'resilience' lens, examining changes in indicators associated with resilience. These are fairly detailed and tend to be more realistic about project achievements, making an analysis of how these outcomes align with evidence of 'resilience capacities' more straightforward. Evaluation Reports, on the other hand, are tailored to each programme, with varying degree of detail and rigour. Evaluation Reports were more conservative in their descriptions of risks, challenges, and failed outcomes viz a viz resilience restricting further analysis considerably. As a result, the authors opted to conduct 'deep dive' case studies of a smaller sample of projects in considerable detail to better contextualise data and tease out evidence of where resilience capacities had been enhanced. Deep dives (See Section 5) were complemented by interviews with Oxfam programme staff and project documentation. The analysis looked to identify 'building blocks', 'social change processes', and multi-stakeholder collaborations that had delivered changes in capacities.

Taken in aggregate, Oxfam's projects have been effective in building resilience capacities, though these positive impacts on resilience were generally conservative. Still, nearly every project contributed to enhancing one or more resilience capacities to varying degrees. The projects were most successful in building absorptive capacity. Evidence for building adaptive and transformative capacities was generally smaller. Indicators used to measure changes in transformative capacity were fairly broad, using indicators of social cohesion, participation in community groups, and attitudes towards innovation to capture potential for transformative change. Ideally measuring capacities, requires adapting data collection methods to find more appropriate markers of resilience from the commencement of projects rather than doing this retrospectively.

A complementary statistical meta-analysis of Effectiveness Reviews conducted by Rob Fuller revealed a few interesting 'big picture' insights on Oxfam's contributions to building resilience capacities. Using a 'resilience index' developed from indicators in Effectiveness Reviews, Fuller found that projects in Asia were more successful in achieving a positive effect size on resilience compared to projects in Africa and South America, though this change was led by particularly successful projects in Nepal and Pakistan. Project duration and size held no bearing on the project's impact in building resilience capacities, and no single indicator drove changes in resilience across the 16 projects that Fuller sampled. Female-headed households had

marginally lower resilience scores than male-headed households. These findings are explored in more depth in Section 4.1.

The deep dives reveal a number of interesting insights on the causal mechanisms through which individual projects contributed to resilience capacities. Taking a few examples we see that the R4 Rural Resilience Initiative in Senegal helped people absorb shocks by providing weather indexed risk insurance to 3700 farmers. Here pay outs are linked to hazard events to ensure that farmers have something to fall back on. The Climate Change Adaptation among Small Producers initiative in Nicaragua helped enhance adaptive capacity by promoting new agricultural techniques and seed varieties that were suited to changing conditions by recruiting community volunteers who received this knowledge and helped raise awareness amongst other farmers. The Community-based Disaster Risk Management and Livelihoods Programme in Pakistan contributed to enhancing transformative capacity by ensuring that community groups have a seat on the table and a voice in policy making processes around risk management. On the other hand, we learn that existing and entrenched cultural norms around excluding certain communities in Chad made it difficult for the project in the country to initially build resilience capacities uniformly across all sections of the population. In this way, all seven of the case studies in this report provide valuable insights into the pathways of and impediments to enhancing resilience.

This analysis leads to the distillation of some crucial, cross-cutting insights.

The majority of Oxfam's evidence of generating positive changes in resilience capacities lies at the local level (community/household/individual). This is partly due to the nature of the data used to assess these changes; household surveys are limited in their ability to capture higher system-level dynamics. This is also likely related to timescales of projects. Building resilience capacities beyond the household level often requires engaging with institutional, political, and environmental factors that rarely show radical changes in a few years. These types of shifts are often far beyond the scope of any particular intervention.

Deep dives revealed that issues of power had a crucial bearing on resilience capacities and need more attention. Issues of caste, religion, corruption, debt, and gender have an important mediating effect on people's capacities to deal with shocks and stresses. Project documents shied away from engaging with issues that were impeding resilience but that were beyond the sphere of the project's influence, such as levels of indebtedness or high-level political capture of project activities. Bringing attention to these issues can support design of more effective programmes that can work better in local contexts by moving away from a technocratic approach to resilience building and recognising the inherent difficulties in tackling such complex issues.

Multi-stakeholder collaborations were varied in their ability to deliver changes in resilience capacities. Interviews with project staff highlighted the importance of strong relationships with local development organisations and government institutions, who were key to building ownership of the project and encouraging participation from different actors. Interviews also highlighted the difficulties of working in consortiums with separate funding strategies, which impeded a more collaborative approach. Lastly, multi-stakeholder collaborations were also an opportunity for innovation. Partner institutions could take on new responsibilities or undertake new activities with the support of Oxfam and other stakeholders.

Aligning evidence of Oxfam's impacts into resilience capacities has generated a rich internal discussion of how various indicators, such as social capital or access to credit, best illustrate changes in resilience capacities. Refining this approach requires testing various approaches to more accurately gauge resilience and understand what factors contribute to enhancing each capacity (and in what context). Many of the initial indicators from Evaluation Reports and Effectiveness Reviews focused on programme outputs/intermediate outcomes (such as the implementation of an early warning system) rather than final outcomes/impacts (reduced disaster mortality and losses). This means resilience capacities are not tested until the event of

a shock or stress. These disturbances can highlight what factors were the most important contributors to resilience at the household and community level, and inform which indicators are most appropriate for tracking changes in resilience. A few of Oxfam's programmes sampled in the 'deep dive' case study analysis were interrupted by an environmental stress or shock during or shortly after implementation, including Nepal, Pakistan, and Senegal. These case studies are key to informing Oxfam's successes and limitations in building resilience capacities. This said, this report also makes a strong case for the wider use of approaches for measuring resilience across Oxfam that not only track resilience capacities but also wellbeing outcomes in the face of hazards.

1. INTRODUCTION

The term resilience has multiple meanings and can be applied to any phenomenon that involves shocks and stresses to a system (Alexander, 2013: 2713). Resilience is used differently by – and even within – academic disciplines, from psychology and engineering to mechanics, computer science and corporate strategy (Bahadur et al., 2013). Yet the concept of resilience that has been most influential in informing development initiatives, climate change adaptation (CCA) and disaster risk reduction (DRR) fields of practice comes from ecology (Schoon, 2005). In his seminal thesis on resilience, Holling (1973) describes resilience as the ability of ecosystems to absorb changes and still persist. This concept was then extended and applied to understanding the functioning of coupled social and ecological systems (SES). In this way, Folke (2006: 259) defines resilience as the ability of systems to ‘absorb disturbance and re-organize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks’.

Practitioners have taken this conceptual understanding of resilience to devise operational initiatives to enhance resilience. This in turn has given rise to the challenge of effectively measuring, evaluating, tracking and gauging changes in resilience. To overcome this challenge, organisations around the world are preparing resilience frameworks that not only provide a robust framing of what resilience entails but also lend themselves to informing an actionable approach for measurement. Across many of these frameworks there is emerging consensus that resilience results from set of ‘capacities’ – these describe the ability of systems (i.e. individuals, households, communities, cities, etc.) to withstand diverse shocks and stresses. These capacities include the ability to ‘absorb’ and ‘adapt’ to disturbances as well as the capacity to fundamentally ‘transform’ the systems that create risk, vulnerability and inequality.

Along with a number of key global organisations, Oxfam too has been grappling with these key issues. The Oxfam Strategic Plan establishes the priorities for Oxfam for six years, 2013-2019. This establishes six key goals and outcome areas against which the organisation will show progress over the coming years. Building resilience has been identified as an important, cross cutting outcome area. The organisation describes resilience as ‘the ability of women and men to realise their rights and improve their well-being despite shocks, stresses, and uncertainty’ (Hillier and Castillo, 2013). In the past, Oxfam GB has conceptualised resilience in terms of five dimensions: livelihood viability; innovation potential; contingency resources and support access; integrity of the natural and built environment; and social and institutional capability (Hughes and Bushell, 2013). However, a fresh set of global guidelines for designing and implementing programmes, in which the conceptualisation of resilience has been brought in line with the emerging global discourse, has now been issued (Jeans et al., 2015). Rather than understanding resilience in terms of five dimensions, it is instead framed in terms of the three aforementioned capacities.

Oxfam’s Framework and Guidance for Resilient Development (Jeans et al., 2015) argues that achieving Oxfam’s strategic outcome goals will be difficult unless its programmes contribute to resilience. The framework highlights that resilience is a function of absorptive, adaptive and transformative capacities and that pathways of resilience have four components.

Working collaboratively with stakeholder groups to understand the issues and co-create solutions: ‘Collaborative relationships between communities, civil society, the private sector and different levels and sectors of government have been recognized as necessary for successful climate change adaptation due to its complexity, and the same applies to resilience’ (ibid: 7). The framework outlines how Oxfam must enhance the capacity of marginalised and vulnerable people to use their voice, support national civil society, host special events and convene national platforms for enhancing resilience.

- Understanding the context: In this framework, Oxfam articulates the manner in which interventions need to be informed by both an understanding of the causes of risk, fragility and vulnerability and the manner in which ‘risks affect specific groups of people and communities living in poverty and the systems (natural and social) that support them’ (ibid.: 3).
- Integrating social change processes and building blocks: Oxfam argues that its established and new areas of practice can be employed to deliver resilience. However, the framework notes that ‘resilience requires that we give greater attention to the processes of social change that build capacities within communities, institutions and civil society’ (ibid: 17). These processes include empowerment, securing and enhancing livelihoods, informing, flexible and forward-looking planning, accountable governing and learning.
- Iterative learning, adaptive management and monitoring, evaluation, accountability and learning (MEAL): Oxfam acknowledges that pathways to resilient development are not linear, so there is a need to adapt actions and processes through the course of a programme, and certainly over the course of a country programme or regional strategy. For this, it is vital that the organisation have robust MEAL components built into programmes. MEAL components can help programmes adapt to complex and changing environments, create rapid learning loops, identify unintended consequences and create space for shared learning.

The main purpose of this report is to capture the effectiveness of interventions supported by Oxfam (either directly or with/through partners) in generating changes in resilience in terms of the three capacities. It will achieve this by reviewing and synthesising results from existing Effectiveness Reviews and final evaluation reports prepared by the organisation and distilling the key insights using Oxfam’s new conceptualisation of resilience (see Annex 1 for a note on sampling).

Overall, 16 Effectiveness Reviews were selected for analysis; these shared a uniform methodological approach to measuring resilience and contained comprehensive datasets. These were also used by Rob Fuller in conducting a statistical meta-analysis (Fuller, 2016). This report complements the latter by providing an in-depth perspective on the manner in which four Effectiveness Reviews contributed to enhancing resilience capacities. Apart from the Effectiveness Reviews, we qualitatively analysed 11 evaluation reports with no shared methodological approach or conceptualisation of resilience to assess Oxfam’s effectiveness in building resilience capacities. Three of these were included in deep-dive case study research to understand how Oxfam contributed to enhancing resilience. While Effectiveness Reviews and evaluation reports for the selected projects were the primary documents under analysis, a large number of ancillary documents and key informant interviews have enriched this report.

The next section provides an overview of the methodology used and outlines the constraints/limitations the authors faced. Section 3 carries a short literature review on the three resilience capacities and other key concepts that have guided analysis. Section 4 provides a bird’s eye view of the statistical meta-analysis of Effectiveness Reviews that was undertaken by Rob Fuller in parallel to this report. Section 4 also provides a cross-cutting analysis of what the sample of evaluation reports under analysis tells us about changes in resilience capacities affected by Oxfam’s projects. After this ‘big picture’, Section 5 provides a ‘deep dive’ analysis of seven Oxfam projects. Here, we look at their contribution to resilience capacities, the building blocks and social change processes they employed, how they included the concerns of women and the nature of partnerships that helped deliver resilience. The concluding sections outline gaps and recommended future directions.

2. METHODOLOGY AND LIMITATIONS

The analysis included in this report has resulted from the following steps.

1. The process began with a thorough appraisal of the Terms of Reference (ToRs) for this consultancy. The ToRs focused on the following key questions:
 - a. What is the extent to which Oxfam's interventions have contributed to building absorptive, adaptive and transformative capacities together at multiple levels?
 - b. To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?
 - c. To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity?
 - d. On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on?

These are the four key questions that this report will attempt to answer.

2. We consolidated an understanding of absorptive, adaptive and transformative capacity by synthesising insights from the latest academic and organisational literature on resilience. This synthesis was circulated for review to external experts as well as Oxfam staff and was improved following their comments.
3. Following this, we slotted 51 resilience characteristics used in 16 Effectiveness Reviews against each of the three capacities. This was done by dissecting the definitions of each capacity according to insights from our condensed literature review (Step 2) and understanding what each characteristic referred to. We verified our results with the consultant conducting the statistical meta-analysis study, resolving any inconsistencies or points of clarification.
4. We then selected four Effectiveness Reviews for a case study/deep analysis (from a total of 16) using results from the preliminary analysis of resilience capacity indices developed by the statistical meta-analysis study. We selected Effectiveness Reviews from Chad, Nepal, Nicaragua and Pakistan. Our primary criterion was a wide geographic spread, with an African, Asian and Latin American country represented. Our secondary criterion was to pick projects that had a large effect size for one or more capacities. We tried to avoid using projects that had a low number of indicators feeding into their capacity index, as we would have fewer indicators to engage with in our analysis. (Apart from this 'deep analysis', a narrative drawing insights from an analysis of all 16 Effectiveness Reviews included in the statistical meta-analysis study is included in Section 4.1).
5. Additionally, we perused a set of 11 final evaluation reports from projects and programmes aiming to build resilience that were made available to us by Oxfam, and analysed their internal rigour, coherence and overall quality based on BOND's Evidence Principles (see Annex 3). Seven evaluation reports were judged to be of high quality; insights from these are included in Section 4.2 (reports from Ethiopia, Indonesia, the Philippines, Senegal, Timor-Leste, Vanuatu and Vietnam). From these, we selected three evaluation reports for a deep analysis (reports from Senegal, Timor-Leste and Vanuatu) to complement and mirror our deep dive analysis of Effectiveness Reviews. This selection was based on a subjective assessment of the degree to which these reports would provide information on the key research question and to ensure a wide geographic spread.
6. Following this, the research team collected documents that complemented the selected sample of reports (e.g. project proposal, commentaries, management responses) and conducted a set of semi-structured interviews with Oxfam staff with an in-depth knowledge of the projects on which the evaluation reports and Effectiveness Reviews were based.
7. Data from these reports and interviews were extracted and organised by using open coding (with codes based on the four key questions). Axial coding was then employed to combine codes with very similar information and distil the information further.
8. Following this, a narrative was prepared spanning both a 'big picture analysis' (Section 4) and a 'case study analysis' (Section 5).

While the analysis contained in the sections that follow is based on the aforementioned methodical steps, there are some important limitations that need to be kept in mind:

- **Scale of analysis:** The Effectiveness Reviews provide a snapshot of resilience at the household and sometimes at the community level. They were not designed to provide insights into the state of resilience at higher scales. On the other hand, certain aspects of resilience, especially transformation and transformative capacity, lend themselves better to changes at higher scales of governance.
- **Inputs, outputs and outcomes:** Many of the characteristics listed in the evaluation reports resemble inputs/outputs (e.g. access to climate information) as opposed to outcomes (e.g. demonstrable use of climate information). Effectiveness Reviews mostly focus on 'intermediate outcomes'. At the same time, the latest thinking on the monitoring and evaluation (M&E) of resilience programmes argues that resilience is usually measured at the level of final outcomes (Bahadur et al., 2015; Brooks et al., 2014). Therefore, the analysis in the pages that follow is based on the assumption that the input/outputs and intermediate outcomes being measured will result in the intended final outcomes. In some cases, analysing ancillary documents has helped provide some insight on final outcomes.
- **Baselines:** Baselines are important for measuring changes in resilience capacities. In many Effectiveness Reviews and some evaluation reports, baseline data are lacking. Effectiveness Reviews attempt to circumvent this problem through the use of recalled baselines, which are useful but cannot be considered precise indications of change. Problems in baseline data are also highlighted in a number of Evaluation Reports.
- **Paucity of data:** The Effectiveness Reviews do an excellent job of reporting results but were not set up deliver a high resolution analysis of causation, theories of change and programme logic. For example, they describe the percentage of an intervention group that improved in a particular characteristic of resilience versus the comparison group but stop short of describing the reasons for this change in detail. Therefore, the authors of this report have attempted to bridge these gaps through interviews and by reviewing complementary documents wherever possible, but could not always identify the drivers of change where information was missing.
- **Paucity of time:** The research team delivering this initiative suffered from a paucity of time. This owed to a number of reasons that included the fact when the researchers perused the original sample of key documents they found many of these did not provide answers to key questions listed in the ToRs and that additional documentation was needed. Moreover, after beginning this project, it became apparent that analysis could not proceed without key insights from the statistical meta-analysis, as a result of which the schedule of this report became tied to the schedule of the other. Also, there were some delays in scheduling interviews (because of the aforementioned delays in analysis) with Oxfam staff; once these were conducted; they led to further documents for analysis which placed further time pressures on the team. The paucity of time has also meant that the editor has been unable to perfect the language and grammar but has worked to ensure that the report is good enough for circulation and review.

3. KEY CONCEPTS

The sections that follow attempt to define and explore absorptive, adaptive and transformative capacities. Prior to delving into the analysis it is important to note that it is apparent that these capacities are overlapping and the same activities/inputs can help support multiple capacities. It is also clear that these capacities share synergies and building one capacity can often support the building of another. For instance, without the capacity to absorb shock, a community hit by an extreme event may collapse and therefore the question of developing adaptive capacity may never arise. Similarly, in a community affected by shocks (e.g. hurricanes) and stresses (e.g. salination) one may need to simultaneously deploy absorptive capacity to deal with the former and adaptive capacity for the latter. In this case, a combination of these capacities would jointly deliver resilience. Similarly, there would be a number of other permutations and combinations of these capacities for resilience.

3.1 Absorptive capacity

What is absorptive capacity?

Absorptive capacity is the capacity to take intentional protective action and to cope with known shocks and stress. It is needed as shocks and stress will continue to happen, for example because of extreme weather events, protracted conflict and natural disasters.

At its simplest, absorptive capacity is the ability to persist in the aftermath of a shock or a stress (Béné et al., 2012). It involves anticipating and planning for specific, known shocks and short-term stresses to reduce exposure and to minimise losses, and drawing on contingency resources and support networks when shocks/stresses are realised. Activities that enhance this capacity cover the traditional spectrum of risk management, from preparedness to planning, coping and recovery (Kellett and Peters, 2014). Although resilience is a highly complex phenomenon, absorptive capacity is arguably the most intuitively easy capacity to understand as it aims at stability. Actions that enhance absorptive capacity are primarily concerned with preventing a loss of welfare outcomes should a shock/stress occur in the short to medium term (Frankenberger et al., 2013).

What are the key features of absorptive capacity?

Absorptive capacity is two pronged: it is both the ability of a social system to anticipate and reduce the impact of a shock or stress through preparedness and planning and the ability to recover quickly after exposure to a disturbance. To account for these two functions, some frameworks, such as one adopted by the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) initiative, choose to further unpick absorptive capacity (Bahadur et al. 2015). This framework separates out those elements of absorptive capacity that allow social systems to anticipate and reduce the impact of climate variability and extremes through preparedness and planning, into the separate category of 'anticipatory capacity'.¹

Interventions that aim to enhance the ability to anticipate risks (the first component of absorptive capacity) take place before a shock and focus on limiting mortality and reducing the social and economic costs. Bahadur et al. (2015) argue that adaptive capacity is needed to tackle evolving risks and uncertainty, whereas anticipatory capacity (a component of absorptive capacity in this context) enables targeted responses to engage with specific shocks and stresses.

The second component of absorptive capacity, the ability to recover from a disturbance quickly, is key to mitigating long-term negative impacts on well-being and development. This aspect of absorptive capacity is sometimes described in the literature as 'coping' with the aftermath of a

shock, but Frankenberger et al. (2013) qualify this definition, explaining that some post-disturbance coping behaviours can have negative consequences on household well-being. One example would be a household that divests itself of productive assets to meet short-term health and nutrition needs during a drought. This thinking is in line with Barrett and Constan (2013), who link resilience to poverty traps and advance the theory that an unpredictable stress or shock may push a household below critical functioning level. Interventions that aim to prevent this downward shift in well-being after a disturbance include cash and food transfers, such as the Productive Safety Net Programme in Ethiopia or the Hunger Safety Net Programme in northern Kenya.

What kinds of interventions/actions contribute to enhancing absorptive capacity?

A wide range of actions demonstrate the ability to anticipate shocks and stresses and proactively reduce their impact, such as implementing early warning systems to cyclones and droughts, emergency preparedness planning and physically strengthening infrastructure. Oxfam's Resilience Programming Framework supports this as it highlights the manner in which 'informing' and 'flexible and forward-looking planning' are key social change processes that support resilience capacities. Once a shock is realised, interventions such as disaster relief, microcredit, weather-indexed insurance, social protection schemes and remittances are all mechanisms through which households can absorb the impacts of a shock without incurring long-term costs (Brouwer et al., 2007; Carter et al., 2004; Devereux, 2002; Doocy et al., 2005). Actions to support the diversification of livelihood and dietary strategies also contribute to absorptive capacity, as long as the different options are not all sensitive to the same types of shock or too many in number such that no single livelihood strategy yields significant income (ibid.).

Beyond financial resources, actions that help build social capital and psychosocial well-being are important components of absorptive capacity. Frankenberger et al.'s (2013) framework for community resilience explains that strong social capital allows a community to draw on outside resources from external networks after a shock. Strong social capital also underpins norms of reciprocity and cooperation for recovery, making communities with strong social capital inherently more resilient than those without it. On the individual level, psychological resilience plays a role in positive adjusting to change, and is fostered through actions to provide social support (Graber et al., 2015).

3.2 Adaptive capacity

What is adaptive capacity?

Adaptive capacity is the capacity to make intentional adjustments and incremental changes in anticipation of or in response to change, in ways that create more flexibility in the future. It is needed as change is ongoing and uncertain, and because intentional transformation can take time and sustained engagement.

Key to adaptive capacity is an awareness of changing conditions, and the ability of systems (e.g. communities) to proactively adopt new strategies to engage with evolving and unexpected shocks, stresses and uncertainties (Lopez-Marrero and Yarnal, 2010). This includes the ability to react to evolving hazards and stresses so as to reduce the likelihood of the occurrence and/or the magnitude of harmful outcomes. This capacity involves a continuous process of adjusting and improving strategies incrementally, ensuring livelihoods and well-being can be maintained or even improve as the environmental, social and political conditions shift around them. Therefore, adaptive capacity is about the proactive adjustment to changes in the medium to long term; this could be in relation to a particular disturbance but need not necessarily be specific to a disturbance.

What are the key features of adaptive capacity?

This includes learning from disturbances. Systems with adaptive capacity are able to recover in such a way as to reduce their vulnerability to the same stresses should they occur again, as well as new and emerging risks (Smit and Pilofosova, 2001). In other words, key to adaptive capacity is 'building or bouncing back better' (Manyena et al., 2011). Without this ability to recover in such a way as to reduce vulnerability to future events, communities would be stuck in risk traps and recurring cycles of vulnerability (Becchetti and Castriota, 2011). In this way, adaptive capacity embraces concepts of creative destruction, in which a shock/stress can provide an opportunity to break from past ways of doing things and reinvigorate productivity (Skoufias et. al, 2011). Unlike absorptive capacity, which includes the ability to recover from a disturbance, adaptive capacity uses recovery as a springboard to rebuild in a way that is better able to withstand future risks.

Adaptive capacity is exercised and put into use before and after shocks and stresses and, taken alone, many of the factors that enhance adaptive capacity overlap with those that enhance human development. This is because actions to improve adaptive capacity aim to improve well-being regardless of whether shocks/stresses impact a system in the near future (Huq and Reid, 2009). Adaptive capacity help make systems more resilient to shocks and stresses, but these activities may also improve overall health, economic, social and institutional outcomes (Smit et al., 2000; Schipper and Pelling, 2006). Actions aimed at building adaptive capacity can also have concurrent environmental benefits, such as improved natural resource management (NRM) or integration of conservation techniques into agricultural practices.

What kinds of interventions/actions contribute to enhancing adaptive capacity?

Frankenberger and Nelson (2013) argue that adaptive capacity can be enhanced by actions/interventions that facilitate access to and use of productive assets (e.g. natural resources, land, credit, markets, livestock, linkages to input suppliers); that improve health, education and nutrition; that strengthen participation in diverse and equitable social networks that build bonding and bridging social capital over the long term (e.g. organising self-help groups, savings groups); that facilitate the use of information on changing market/climatic conditions and new practices (e.g. sustainable agriculture practices, value-added practices); and that enable incremental technological innovation.

Certain social protection instruments can also enhance adaptive capacity, as they can incentivise adaptive actions. India's flagship social protection scheme, the Mahatma Gandhi National Rural Employment Guarantee Scheme, which guarantees 100 days of work to the poor, supports the digging of tanks, wells and building dykes/damns, all of which help build adaptive capacity. Many elements of this typology are also found in one proposed by the Africa Climate Change Resilience Alliance (ACCRA) (of which Oxfam GB is a prominent member). This too highlights the importance of action to improve the availability of key assets: the ability to collect, analyse and disseminate knowledge and information and an appropriate institutional environment. Much of this overlaps with the Oxfam Framework and Guidance for Resilient Development, where social change processes such as 'learning', 'securing and enhancing livelihoods' and 'accountable governing' are seen to enhance this resilience capacity.

3.3 Transformative capacity

What is transformative capacity?

Transformative capacity is the capacity to make intentional change to systems that create risk, vulnerability and inequality. It is needed to influence the drivers of risk, vulnerability and inequality and because social and natural systems are themselves being transformed, for example by globalisation and climate change.

Transformative capacity helps achieve transformation and Park et al. (2011: 6) claim that it is 'a discrete process that fundamentally (but not necessarily irreversibly) results in change in the biophysical, social, or economic components of a system from one form, function or location (state) to another, thereby enhancing the capacity for desired values to be achieved given perceived or real changes in the present or future environment'.

Transformation is the 'radical action' of resilience, and transformative capacity is the ability to challenge the status quo, bring about change in power structures and social and economic behaviours and redefine drivers of risk and vulnerability, regardless of specific shocks.

What are the key features of transformative capacity?

The increased frequency and severity of disasters, pressures of conflict and migration and high exposure to price shocks have stoked interest in transformation as a method of going beyond incremental adjustments to the status quo. Transformation aims to generate the substantial changes required for addressing multiple, concatenate shocks and stresses (Kates et al., 2012; O'Brien, 2012; Park et al., 2012; Pelling, 2010; Tanner and Horn-Phathanothai, 2014). Supporting transformative capacity is more demanding than other resilience capacities, as it requires addressing underlying power structures or effecting change at scale (or both). In some cases, transformation can describe an unintended change, but transformative capacity refers to deliberate attempts to engineer the changes required to achieve a desired goal over the long term (O'Brien, 2012).

What kinds of interventions/actions contribute to enhancing transformative capacity?

Despite this general consensus on the underlying assumptions contained within the term, there is a high degree of elasticity in the different actions that build transformative capacity (Bahadur and Tanner, 2014b). It is the least tangible capacity because it deals with systems that create risk, vulnerability and inequality. Still, a review of the emerging literature in this domain reveals there to be a number of essential actions that help build transformative capacity.

One of the most common elements of transformative capacity in the literature is the ability to innovate and test new approaches to effect fundamental change. Therefore, actions aimed at the generation of new knowledge and supporting the application of this new knowledge towards a markedly different way of doing things help build transformative capacity. Biggs et al. (2010: 3) argue that a 'wave of innovation is needed if modern society is to transform its current ecosystem-management institutions to meet the environmental challenges of the 21st century'. While 'innovation' can be applied to many contexts, there is an important distinction between actions that strengthen the status quo and those that champion innovation with the potential for change (Pelling, 2010). Such innovation is likely to be disruptive and may destroy, at least in part, existing approaches to livelihoods, governance and business (and the associated skills) to enable transformation to occur (Francis et al., 2003). (This is in contrast with the type of innovation discussed in the section on adaptive capacity, which pertains to incremental shifts.) This is also highlighted in Oxfam's Framework and Guidance for Resilient Development, where learning and innovation has been highlighted as a key social change process that contributes to resilience.

At its core, transformative capacity also results from interventions that aim at addressing power relations and helps individuals to be 'empowered'. This involves recognising the social and political processes underpinning vulnerabilities, building inclusive forms of governance (perhaps through 'linking social capital' community organisation to demand greater accountability), redistributing benefits and more equal access to resources. Kapoor (2007: 478) argues that social transformation entails engagements with issues of power at two levels: changes in the social structure and changes in individual 'values, capabilities and choices'. Many capacity development and knowledge-based actions will be geared towards this end. Sometimes, this is through enhancing skills and knowledge (such as access to and use of climate information) and challenging pre-conceived ideas, ways of working and oppressive power structures (such as

forced marriage, caste and gender discrimination) that may curtail expression (Bivens et al., 2009).

Given the prominence of altering existing power relations in the literature on transformation, gender dynamics and meaningful inclusion of marginalised groups are key in effecting transformational change. Again, this requires recognising the social and political processes that both undermine and constrain resilience, and entails building greater transparency and wider inclusion of marginalised groups into formal and informal governance systems. Within the household, changing power relations may come about through shifts in the domestic economy, such as providing conditional cash transfers to women to enhance their strategic position within the family (Béné et al., 2012). In essence, the ‘empowerment pillar’ of transformation pertains to successfully tackling the underlying drivers of vulnerability to shocks and stresses (Bahadur and Tanner, 2014a). This is also highlighted in Oxfam Framework and Guidance for Resilient Development, where personal, social, political, and economic empowerment is recognised to be essential to developing resilience capacities.

Third, interventions aimed at enabling shifts in policies can enable transformative capacity as these fundamentally change the institutional ‘rules of the game’ (Béné et al., 2012). This is the most obvious and easily measurable form of transformational change, but these may generate conflict if they exclude marginalised groups or favour certain sectors or industries. For example, BRACED aims to generate this change by supporting advocacy and lobbying initiatives to improve the movement of pastoralists across national borders. These policy shifts may be at the international and national scale, for example the creation and enforcement of legislation to deter the concentration of people and economic assets within a certain distance of the coastline after tsunamis, or at lower scales of governance. Catalysing/supporting leadership is also highlighted within the existing literature as important to effect transformation, as leaders are key to identifying policy windows, developing collective visions of changes, creating enabling environments and then exploiting policy opportunities. This could include developing community groups and citizens forums to tackle particular problems.

Overall Bene et al. (2012: 22) combine all these points to argue that transformative capacity results from ‘technological innovations, institutional reforms, behavioural shifts and cultural changes; they often involve the questioning of values, the challenging of assumptions, and the capacity to closely examine fixed beliefs, identities and stereotypes’.

Table 1: Three capacities at a glance

	Absorptive	Adaptive	Transformative
<i>Definition</i>	Absorptive capacity is the capacity to take intentional protective action and to cope with known shocks and stress. It is needed as shocks and stress will continue to happen, for example due to extreme weather events, protracted conflict, and natural disasters.	Adaptive capacity is the capacity to make intentional adjustments and incremental changes in anticipation of or in response to change, in ways that create more flexibility in the future. It is needed as change is ongoing and uncertain, and because intentional transformation can take time and sustained engagement.	Transformative capacity is the capacity to make intentional change to systems that create risk, vulnerability and inequality. It is needed to influence the drivers of risk, vulnerability and inequality and because social and natural systems are themselves being transformed, for example by globalisation and climate change.
<i>Aim</i>	Stability	Flexibility	Change
<i>Features</i>	Anticipating, planning, preparing, coping, buffering, recovering swiftly	Learning from disturbance, adjusting incrementally to changes, enhancing human development and well-being,	Substantial change, altering the structural factors that put people at risk, tackling the drivers of vulnerability, sys-

		making proactive and informed choices, taking advantage of opportunities	tems level
<i>Typology of shocks</i>	Shock/stress-specific	Flexible, can be shock-specific	Multiple risks
<i>Origin of capacity</i>	Proactive and reactive	Proactive	Beyond proactive; reshapes 'rules of the game'
<i>Actions/interventions that help build this capacity</i>	Early warning systems, emergency preparedness, climate proofing, micro-credit, insurance, social protection, social capital, psychosocial well-being, disaster relief	Productive assets, health education, nutrition, information, strong community institutions, sustainable livelihoods, increased participation in micro-enterprise activities	Innovation, experimentation, empowerment, changing values/beliefs, transparency, inclusion, deep participation, policy shifts, changing the rules of the game, changing power relations at household level
<i>Time horizon</i>	Short to medium term	Medium to long term	Long term

3.4 Social change processes

Oxfam Framework and Guidance for Resilient Development identifies six closely connected social change processes that enhance absorptive, adaptive and transformative capacities.

1. empowerment: processes for promoting gender justice; enhancing, voice, empowerment and participation, conflict resolution and psychological resilience
2. securing and enhancing livelihoods: processes for securing and building human, social, natural, physical and financial capital and household assets based on the sustainable livelihoods framework
3. informing: processes that develop information and knowledge to support decision-making and action. This is closely linked with the context analysis
4. flexible and forward-looking planning: processes that enable and enhance collective, forward-looking and flexible decision-making
5. accountable governing: processes that secure accountable and enabling states and institutions
6. learning: processes that enable to people to learn together, support experimentation and increase the potential for innovation (social and technological)

3.5 Building blocks

Oxfam's Resilience Programming Framework also highlights the manner in which the pathways of achieving resilience will be determined through the organisation's existing areas of practice as water, sanitation and hygiene (WASH), CCA, NRM, market development, DRR, etc. and new areas of practice such as social protection, insurance mechanisms and safe migration and remittance mechanisms. Crucially, the framework highlights the manner in which one or more building blocks may be combined to deliver resilience (more detail is in Section 1).

3.6 Multi-stakeholder collaborations:

No one institution or agency can understand all the challenges of increased risk and vulnerability or find and implement the answers. Therefore, Oxfam aims to develop collaborative relationships between women and men, communities, civil society, the private sector at different levels and sectors of government to build resilient development (Lavell et al., 2012). This is with an aim of co-creating solutions and a shared commitment to learning for bringing the solutions

into practice. Therefore, multi-stakeholder collaborations are a key component of Oxfam's Framework and Guidance for Resilient Development (for more detail see Section 1).

3.7 Multidimensional integrated analysis of risk, fragility, vulnerability and capacities

Oxfam argues that its interventions need to be informed by an understanding of the causes of risk, fragility and vulnerability. It also aims to understand the manner in which risks affect specific groups of people living in poverty as well as the systems (natural and social) that support them. The objective is to acquire a 'good enough' understanding to make explicit assumptions and design a theory of change that leads to a coherent programme of activities with stakeholders. This will only be possible by adopting a 'systems approach' and looking beyond the local level to ask why national and global development strategies are currently failing vulnerable people. The organisation also highlights the need to understand existing capacities and emerging opportunities – using existing creativity, new ideas, new activities, new green technology for collaborative work and work with the private sector (for more detail see Section 1).

4. FINDINGS: THE BIG PICTURE

The two sub-sections that follow attempt to provide a bird's eye view of the manner in which selected Oxfam projects have contributed to building resilience. Section 4.1 draws heavily on the statistical meta-analysis being undertaken by Rob Fuller to provide key insights from this work. Section 4.2 draws on an analysis of seven evaluation reports. Section 5 takes a smaller sample of these projects to explore their contribution to building resilience in much finer detail.

4.1 Key insights from the statistical meta-analysis of Effectiveness Reviews

The following 'big picture' insights are derived from a statistical meta-analysis of Effectiveness Reviews conducted by Rob Fuller (Fuller, 2016). The meta-analysis complemented this qualitative review of evidence of Oxfam's impact on resilience capacities by defining a 'resilience index' developed for Effectiveness Reviews and tailoring it to measure changes in resilience capacities, moving away from Oxfam GB's prior approach of measuring changes in five dimensions of resilience: livelihood viability, innovation potential, contingency resources and support access, integrity of the natural and built environment and social and institutional capability (Hughes and Bushell, 2013). The index combines a bundle of relevant indicators that capture broad characteristics of resilience. Indicators that were directly related to delivery of project outputs were removed from the index to better capture intermediate project outcomes rather than only measure outputs. Using this index, we were able to ascertain positive and negative changes in resilience across projects, broken down by indicator, geographical focus, female-headed households, capacity type, etc. Collapsing so many important contextual factors into indexes and indicators requires cautious interpretation; these indicators do not explain why change was observed, and in some cases indicators may not be directly linked to the project logic. Still, they provide some useful illustration for an overarching analysis of evidence of Oxfam's impacts. For further information on how individual projects contributed to resilience, seven 'deep dive' studies were prepared, covering Chad, Nepal, Nicaragua, Pakistan, Senegal, Timor-Leste and Vanuatu (Section 5).

The statistical meta-analysis of 16 Effectiveness Reviews shows the projects have had a positive impact in terms of increasing resilience capacities, although no specific indicators or capacities drove positive changes in the resilience index across the projects. A few broad patterns emerge from the data on resilience: when divided by project type, both resilient livelihood projects and DRR projects on the whole showed a positive impact on the resilience index, although DRR projects had a higher positive effect size on resilience compared with livelihood projects. The comparative success of DRR projects was driven primarily by exceptionally positive results in DRR projects in Nepal and Pakistan. Taking a geographical lens, projects in Asia were more successful in achieving a positive effect size on resilience than projects in West Africa and the Horn, East and Central Africa. As explained in the meta-analysis, the overall effect of projects in all regions other than Asia 'cannot be distinguished from zero at the 95% significant level', although projects in Latin America and Southern Africa performed better than Horn, East and Central Africa projects (Fuller, 2016).

In terms of project design, size and duration of the project did not have any impact on whether the project was successful in increasing resilience capacities. Projects that focused on a smaller number of beneficiaries did not result in more positive change in the overall resilience index than projects with over 2,000 beneficiaries. The projects sampled were of varying length, with an average length of 3.25 years across the 16 projects. As with project size, projects with a longer duration were not associated with a larger impact on the overall resilience index. Still, many of these projects have had post-project follow up or built on prior Oxfam initiatives, so length of project may not be the most meaningful gauge of engagement with project

communities. Nepal and Pakistan, the two projects that were most successful in increasing resilience capacities, were two- and three-year projects, respectively. These two projects increased all three resilience capacities to different degrees; Nepal and Pakistan were both highly successful in enhancing absorptive capacity, with a 40% effect size across the index compared with non-project communities. These projects had some success in increasing adaptive capacity, with a 7% effect size for Nepal and a 12% effect size for Pakistan. Nepal demonstrated the largest increase in transformative capacity across the sample of projects in the resilience index, with a 27% effect size. Clearly, Oxfam projects have the capability to deliver changes in multiple capacities over the course of one project, although these changes may not always be as significant as those observed in Nepal and Pakistan.

The statistical meta-analysis goes on to examine project effect on average for three resilience capacities, with significant diversity among the projects in terms of how they performed in enhancing each capacity. On the whole, the aggregate impact across the projects was highest for absorptive capacity, though not by much: the effect size was 9% for absorptive capacity and 5% for adaptive and transformative capacities. This score is derived from bundling relevant indicators that correspond to each capacity. Some indicators may be relevant for more than one capacity – savings can support a household to cope with a crisis (absorptive), but also can be allocated to a productive investment (adaptive) – but for indicators with this potential overlap we deferred to the contextualised definitions from the Effectiveness Reviews to understand what characteristic the indicator was originally intended to measure.

Lastly, the statistical meta-analysis investigates Oxfam's role in building resilience for women, taking female-headed households as an example. After controlling for wealth, female-headed households had slightly lower resilience index scores than men, even though many of Oxfam's projects were focused specifically on building women's resilience through involvement in community groups, savings groups and income-generating activities. This lower resilience score is consistent across all three capacities. Fuller cautions interpretation of this result, highlighting the small difference and the fact that the measurement approach could have been biased towards higher scores for men (i.e. male-dominated activities were captured in the indicators). Still, the projects did not have a bigger impact on female-headed households than on male-headed households. This finding is worth investigating further; perhaps female-headed households are composed of widowed women who are less able to participate in and benefit from project activities, or even the small difference between female- and male-headed households may show that more vulnerable female-headed households are quickly absorbed by male-headed households through marriage. These results may also not apply to interventions outside the sample of Effectiveness Reviews; Oxfam's Horn of Africa Risk Transfer for Adaptation (HARITA) project in Ethiopia (investigated in the Evaluation Reports but not included in the meta-analysis) showed female-headed households in the project areas were planting more land than both men and comparison communities and had higher uptake of improved seeds and composting techniques.

Some resilience indicators are worth investigating more closely. Diversification in sources of income was used as an indicator across all 16 projects, but only had a positive effect on both the indicator and the overall index in two out of the 16 projects. Diversification of income is commonly used in the literature to describe a positive strategy for handling uncertainty and coping with shocks, although it also has its limitations: diversifying income means households are less capable of specialising and developing economies of scale in their household production, and different income streams may be subject to the same covariate shocks. A drought, for instance, could have negative impacts on both livestock-rearing and gardening activities. Still, not all projects may have been attempting to support income diversification, so the fact that the indicator was not linked to resilience impacts in most projects is not necessarily very telling. Income diversification is examined in more depth in deep dive studies, which better illuminate how income diversification supported (or failed to support) resilience for beneficiaries.

Attitudes towards innovation also yield interesting results for resilience. According to Fuller's statistical meta-analysis, willingness to experiment with innovative practices that are not directly

linked to the project activities was found to be associated with an overall impact on the resilience index. This was also true for savings and social support networks, which were indicators that were good predictors of impact on the overall resilience index. The Senegal deep dive examines the role of savings groups in more depth. In this case, savings and social support networks were linked; some savings groups decided to create a 'social fund' to support members in times of crisis, creating a mini social support network within the savings group. This kind of small-scale autonomous social protection mechanism points to enhanced absorptive capacity for project beneficiaries.

The statistical meta-analysis is based on a bundle of indicators from Effectiveness Reviews that broadly correspond to characteristics of resilience, but we cannot assume that these indicators were the only drivers of resilience. Indeed, the deep dive case studies highlight a number of political and structural factors that impacted resilience at the community level. In Chad, for example, the entrenched hierarchical caste structures had significant barriers to social mobility for the lowest and most vulnerable castes, preventing them from participating in political forums and increasing transformative capacity. Furthermore, levels of indebtedness were highly important in determining to what extent households were able to absorb shocks and increase incomes. Many households saw their income rise considerably from project activities, but were too deeply indebted for these to translate into poverty reduction at the household level. In Nepal, political elites became involved in a process of relocating vulnerable households away from riverbanks after a flood, shifting decision-making out of the hands of the participatory community disaster risk management committees and rendering the indicator 'participation in DRR committees' less meaningful. Similarly, deforestation and environmental degradation had worsened flash flooding in Nepal, but indicators of resilience of the local environment were not captured in household surveys. A number of wider factors play in individual, household, community and system-level resilience, and these are often beyond the sphere of influence of any one intervention. As these deep dives sometimes highlight, building resilience capacities for vulnerably communities in impoverished communities can be a 'wicked problem'. By investigating evidence for positive changes in resilience capacities, this analysis aims to create a clearer picture of how and why Oxfam's interventions have enhanced resilience.

4.2 Key insights on changes in resilience capacities in a selection of Oxfam final evaluation reports

Oxfam's interventions have contributed to enhancing absorptive, adaptive and transformative capacities in a number of ways. An analysis of the reports does not provide a very clear picture of the manner in which the enhancement of resilience capacities was sequenced and it seems that activities contributing to different capacities unfolded simultaneously. Also, much of the analysis that follows provides a picture of resilience at the household and community level, as evaluations seemed to focus largely on this level (more on this in Section 6).

The synthesis that follows is based on an in-depth and systematic analysis of evaluation reports, project documents and interviews with project staff. The projects that were part of this analysis include the HARITA project (Ethiopia) (drawing on Madajewicz et al., 2013); the Partnership for Equitable Resilience to the Impacts of Climate Change of the Coastal Communities in Deltas of Vietnam (CCCCD) (Son et al., 2015); Building Resilient and Adaptive Communities and Institutions in Mindanao (BINDS) (Philippines) (Cabaraban, 2014; Oxfam, 2015b); Building and Deepening Resilience in Eastern Indonesia (BDR) (Boite et al., 2014; Oxfam, 2015a); the R4 Rural Resilience Initiative (Senegal) (Dalberg, 2015; Oxfam, n.d.a.; Oxfam America, 2015); the Climate Change Adaptation Programme (Vanuatu) (Ensor, 2015; Maclellan and Bradshaw, 2015; Webb et al., 2015); and the Improving Land and Water Management to Reduce Impacts of Climate Change on Communities Programme (Timor-Leste) (van Dujin, 2015).

Absorptive capacity

Credit and Insurance

Risk transfer mechanisms help vulnerable communities survive shocks that may threaten livelihoods and cover debilitating economic losses that could push people into poverty and erode well-being. Acknowledging this, the HARITA initiative aimed to provide weather-indexed insurance to farmers vulnerable to drought and conditions of increasing aridity to cover losses. Farmers either make a cash contribution in order to purchase insurance or have the option to purchase insurance by contributing labour to risk reduction activities (such as managing natural resources). Insurance has been sold to 18,000 households that directly covers approximately 95,000 individuals. Closely linked to this is access to credit. This provides communities with the option to fall back on financial resources should a shock or stress destabilise their livelihoods. It also allows farmers to rebuild assets and recover from different kinds of shocks.

The HARITA project has also led to sections of the target community feeling more confident about taking loans. This is because the project focuses on providing insurance to communities and so there is a feeling that insurance pay-outs will support communities in paying back loans. The evaluation report carries highlights that non-institutional creditors are more likely to lend to project beneficiaries (as they are able to use insurance pay-outs given by the project). The report is silent on the degree to which this resulted in indebtedness and further vulnerability. Similarly, the R4 Resilience Initiative in Senegal introduced weather-indexed insurance in an area underserved by financial institutions. In the first year, nearly 2,000 farmers enrolled, and 300 of them received a pay-out for crop losses related to rainfall. Although the indemnity was small, the insurance scheme increased confidence in financial risk transfer tools, and the following year of the project over 3,700 farmers enrolled in the scheme. In Senegal, the project is more cautious about promoting credit, as rural cash-strapped Senegalese households often use credit to survive the lean season.

Disaster preparedness

A range of actions can help communities prepare for emergencies. These range from prepositioning stocks and retrofitting buildings to practising drills and planning evacuation scenarios. A number of projects under analysis helped communities prepare for disaster in a number of ways. The CCCCD initiative in Vietnam worked with vulnerable coastal communities to reduce risk from a range of hydro-meteorological disasters and worked with communities to ensure they kept reserves of food and water (in case supply was disrupted during disasters) and large but fragile trees around homesteads were removed (to prevent them from falling over during cyclones). To transfer survival skills to community members, helping the flood-affected were better able to reach safer ground, the project also provided swimming lessons. A key element of this initiative involved collaboration between local government units and communities to ensure emergency evacuation procedures were clarified and followed.

The HARITA initiative in Ethiopia, which helped communities fight drought and desertification, aimed to enhance preparedness by helping build grain banks that led sections of project beneficiaries to have 254% more grain reserves than comparison communities. The BDR project in Indonesia also focused on helping communities prepare for a range of shocks and stresses, by developing a range of plans, including evacuation plans and community action plans with roles, responsibilities and key actions to be undertaken in the event of a disaster, based on participatory hazard risk assessments. In addition to plans and procedures, a number of specific actions were undertaken that included clearing rubbish from drains to facilitate the improved evacuation of floodwaters. This action has yielded positive results: the evaluation report highlights how 81.8% of project beneficiaries said their level of household disaster preparedness had improved compared with 2012 – with 46.2% saying this improvement owed directly to the BDR project. Additionally, 92.4% said it was ‘likely’ or ‘very likely’ that the current level of disaster preparedness would be maintained over the next five years.

Adaptive capacity

Knowledge and awareness

Section 3.2 explored the manner in which information, knowledge and learning were key to enhancing adaptive capacity. This is because awareness to changing conditions is vital to enable systems to proactively adopt new strategies for engaging new shocks and stresses (Lopez-Marrero and Yarnal, 2010). A close analysis of the evaluation reports leads to a clear understanding of the manner in which the projects under scrutiny helped provide information on risk and spread knowledge and awareness on ways of dealing with change. Looking at a few key examples, we see that the HARITA project in Ethiopia was instrumental not only in providing information on changing hydro-meteorological conditions with regard to drought but also in spreading awareness of new agricultural production techniques needed to battle these risks. Therefore, farmers were provided information on new varieties of seeds able to withstand greater aridity, told about the benefits of crop rotation and trained in new methods of sowing (e.g. row planting instead of broadcasting) and conserving soil moisture. To meet Oxfam's vision of achieving gender justice while addressing poverty, the project focused sharply on raising awareness of women, who are particularly vulnerable, to new forms of agricultural production that could help diversify their risk portfolio, such as cultivating vegetable gardens and growing fruit-bearing cacti. The evaluation report categorically notes that, as a result of this knowledge, beneficiaries have been able to alter and improve production practices, which, in turn, has resulted in increasing crop yields.

Similarly, the CCCCD initiative in Vietnam, working with the poor, the landless, the physically challenged and female-headed households in 31 targeted coastal communes of the Red River and Mekong Deltas enhanced the ability of 52,110 individuals to understand climate information and new adaptation techniques (1,110 more than they had planned). The evaluation report shows that target populations were better able to identify risk factors (from climate change) as a result of the project and could also discuss how some of their own actions enhance their vulnerability. This apart, sections of the target beneficiaries also enhanced their knowledge on adaptive agricultural and livestock practices. This was because the project had prioritised awareness-raising through the development of evidence-based advocacy materials, partnerships with TV channels and use of social media.

Production practices

The information, knowledge and awareness enhanced by these initiatives led to the propagation and adoption of a range of new agricultural practices. The HARITA project in Ethiopia led to the adoption of a range of new practices among the target beneficiaries. Training delivered to farmers led to a marked increase in them using compost to improve crop yields. The use of compost among the target farmers was almost three times higher than that among similar communities not covered by the initiative. The evaluation report also finds that the project's strong commitment to including women meant investments made by female farmers in improved agricultural techniques were far greater than those made by men. This includes the increased use of fertilisers, new varieties of seeds and changing to resilient crop varieties. As a result of this intervention, the evaluation report notes a drop in the number of women farmers extending their land to 'share croppers'. Share cropping, according to the evaluation report, can be a significant obstacle to improving livelihoods because a substantial share of the produce is retained by the share-cropper.

Similarly, in Timor-Leste, the programme supported the adoption of more diverse practices. This aimed to reduce the exposure of crops and vegetables to natural hazards and help farmers manage natural resources effectively and more productively so as to build socio-ecological resilience. Interventions included composting and terracing to help improve soil fertility, which

was useful for promoting the productivity of crops, as well as helping prevent soil erosion, landslides and further environmental degradation. Additionally, the use of permanent plots and keyhole gardens allowed people to maximise water availability through the use of grey water, thereby enabling them to plant vegetables all year around. Improving production practices in these drought-prone areas ultimately helped participating households increase the amount of food they had to buy and sell. The project evaluation attributes this to improving beneficiaries' well-being and flexibility to deal with shocks and stresses, as well as promoting greater food and income security.

A further quantitative analysis of results across the project areas reveals that female-headed households started planting more land (in comparison with men and comparison communities). The use of improved seeds and compost was also higher in this group as compared with others. Similarly, the CCCCD initiative in Vietnam propagated resilient livelihood options that entailed improved production practices. This included the propagation of new varieties of rice that was saline-tolerant and had a shorter production time. The project also aimed to diversify livelihoods by promoting pisciculture of the Tilapia fish. This hardy breed of fish feeds on livestock waste, it is inexpensive to maintain and its sale supplements the main income of poor households. Pisciculture of Tilapia fish has the potential to raise income (and by proxy standards of well-being) while also providing a buffer should the main source of livelihood revenue be disrupted. Lastly, the project promoted a shift in the seasonal sowing calendar based on shifting conditions and improved water management practices. As result of these activities, 45.5% of the targeted households reported an increase in income from the use of these innovative and improved livelihoods – lower than expected but still not insignificant.

A similar suite of activities aimed at improving production practices was witnessed in the Philippines as part of BINDS, including agricultural methods adapted to changing conditions and the promotion of crops better able to withstand the exigencies of a changing climate. According to the evaluation report, this resulted in an increase in land and livestock ownership among target beneficiaries.

Natural resource management

Adaptive capacity involves proactive adjustment to changes in the medium to long term through the improved management of ecosystem services. Local environmental resilience and associated NRM activities are levers for improving adaptive capacity at the community level. In Ethiopia, the HARITA project aimed to battle drought through a range of soil conservation techniques. These were designed to ensure a greater degree of moisture lock-in in the soil to fight aridity.

In the BDR initiative in Indonesia, NRM was a particularly strong focus, aimed at reducing the risk of multiple hazards, including floods and landslides. This was done through a programme of tree planting along hilly slopes for better soil stabilisation; the roots of trees bind the soil and are widely acknowledged to be an effective pathway to the biotechnical mitigation of landslide risk. To manage flood and drought risks, the project also created water reservoirs that could contain excess run-off and enable improved access to water in the dry season. Finally, the project focused on protecting and increasing mangrove plantations, recognising the vital ecosystem services they provide, including buffering the impacts of storm surges and protecting coastal communities from tidal floods and salt water intrusion.

A very similar programme of work unfolded in the Philippines as part of the BINDS initiative, where the planting of trees, mangroves and bamboo was undertaken with a view to enhancing soil fertility in the face of increasing hydro-meteorological stress. Importantly, the project here aimed at increasing the capacity of local government units to deal with climate change and disasters and the evaluation report notes the increasing emphasis these laid on NRM.

NRM was also a strong focus in the Timor-Leste programme, in which a number of such interventions were promoted to help reduce the risk of erosion, landslides and shifting rivers,

and to create more sustainable and productive practices. The programme reports detail success in terms of the uptake of these practices. These NRM measures also have knock-on benefits; for instance, planting trees has helped participating households increase the amount of food they have available to eat and sell. In addition, the development of community rules (called TaraBandu) has helped contribute to local regulation of natural resources in the project intervention area in Timor-Leste, reducing the damaging practice of slash and burn agriculture in the area.

Transformative capacity

Empowerment

Section 3.3 outlined the manner in which addressing the drivers of vulnerability, such as unequal power relations, is an avenue to transform the manner in which marginalised individuals engage with crisis. Recognising this, a number of projects in this sample aim to economically and socially empower women. For instance, the HARITA project in Ethiopia specifically targeted women while providing weather-indexed risk insurance and spreading awareness of new production techniques. Female-headed households were provided targeted information on cultivating vegetable gardens and fruit-growing cacti, which was separate from and different to the information provided to men. As a result of this focus, female-headed households, which are among the most vulnerable, have been making the biggest changes in production because of their participation in HARITA, and increasing agricultural investments more than are male participants. They have increased the amount of land planted and use more improved seeds in comparison with other groups. Strengthening the livelihoods of women in this way could feasibly result in their socioeconomic empowerment.

The CCCCCD initiative in Vietnam also had a number of positive impacts on women. This initiative ensured the number of women participating in crucial spaces such as local committees for flood and storm control and in processes to develop socioeconomic development plans rose by 29.4% (against a targeted increase of 25%). This resulted in 45.5% of targeted poor and female-headed households reporting an increase in income from innovative and improved climate-resilient livelihood strategies (lower than originally intended but still significant). Crucially, the project resulted in staff members of local authorities identifying the gender-differentiated unavoidable impacts of climate change.

The BINDS initiative in Indonesia undertook a number of actions aimed at improved disaster risk management, including the establishment of village preparedness and response teams (VPRTs), which also made headway in empowering women. The evaluation report notes how at least a third of VPRT members are women, who in many cases were found to be the driving force behind collective action. The report goes on to note that the project has been hugely successful in empowering women to the extent that they often shape VPRT decisions. In some cases, power dynamics between couples in the households have shifted in favour of women as a result of their role in these teams. Similar to the CCCCCD initiative, the project also helped change the attitude of government authorities towards gender and risk. In this case, the project resulted in a government decree mandating the mainstreaming of gender issues in official disaster risk management approaches.

The R4 Rural Resilience initiative in Senegal also benefited from strong participation of women across project activities, including manual DRR labour, savings groups, use of improved agricultural techniques and uptake of insurance. Women were more willing to attend and participate in savings groups than men, and Oxfam staff stressed how participation in community groups had enabled women to speak out confidently in decision-making groups with men and assume leadership positions in community forums.

Although empowerment is often framed in terms of women, Vanuatu's Climate Change Adaptation Programme aimed to empower youth (in addition to women and people with disabilities), given the country's youth-dominated demographic profile. It worked with schools to

develop a new CCA curriculum to link schools to government policy-makers. Schools were also the focal point for DRR measures, such as the introduction of rainwater harvesting systems designed to ensure safe drinking water was available in the case of a cyclone and during the dry season. The programme has even sparked a youth climate movement, bringing together young people and children from different islands. This has allowed for greater youth participation in decision-making processes, and the evaluation report states that 51% of participants across all project activities were youth or children.

Participation and social cohesion

Collective action and participation is also seen as an important pathway to transformative change. This is enhanced because cooperation between community members and their engagement in decision-making helps build more inclusive forms of governance, which in turn can facilitate a more equitable access to resources key to building resilience. A number of projects under analysis embodied these tenets and therefore displayed the potential to enhance 'transformative capacity' of project beneficiaries. The HARITA project in Ethiopia is actively engaging communities in designing and implementing measures to enhance resilience to drought and increasing aridity. This includes the collaborative design and implementation of measures to prevent soil erosion, preventing rainfall runoff, manufacturing compost and undertaking small-scale irrigation works. The project is also helping organise farmers groups where farmers learn from each other's experience of testing new seeds and agricultural practices. Looked at in one way, these actions result in the enhanced ability of farmers to adapt to changing conditions but the collaborative process to achieve this enhances social cohesion and empowerment, thereby contributing to transformative capacity.

This type of empowerment and involvement in decision-making is observed in Timor-Leste as well, where the programme has built on community action plans (CAPS). CAPs were developed through a participatory process that enabled people to identify their own needs and means of meeting them in a way that was tailored to the context of each community. This process helped enhance social cohesion and community participation in decision-making processes and directly informed the interventions being undertaken as part of the project. In addition, this process helped promote more equal power relations and collaboration between members of the community and government stakeholders. Through developing CAPs, authorities acknowledged the needs of community members, creating space for more accountable governance and better community participation in political processes.

Similarly, the CCCD initiative in Vietnam has supported a greater role for communities in managing natural resources and strengthened links with government authorities. The evaluation report underlines how co-management mechanisms for fishing, mangroves and aquaculture established by the initiative are not only helping communities enhance their ownership over natural resources but also have sensitised government agencies to the benefits of citizens' participation in managing natural resources.

According to the evaluation report, the BDR initiative in Indonesia has been inducing collective action, social cohesion and mobilisation of communities on risk reduction to the extent that most beneficiaries feel the district government is now more responsive to their needs. This is a good example of 'accountability from below', where existing inequitable power relations between the vulnerable communities and government agencies have been partially corrected.

Policy and governance

Section 3.3 explained how interventions aimed at enabling shifts in government policies can unlock transformative capacity. Shifts in government policy can change the institutional 'rules of the game' and have a long-lasting impact. One of the objectives of the BDR initiative included shifts in policy, as project activities included advocacy initiatives demanding stronger legislation for DRR. Apart from new laws, the evaluation report outlines that an important project activity was supporting the formulation of official district-level disaster risk management plans. Crucially,

the project also helped establish local DRR forums where various government departments, universities and civil society organisations could effectively develop plans and policies for better disaster risk management. The evaluation report highlights that, given the largely vertical nature of Indonesian governance and the fact that horizontal collaboration remains scant, the creation of a collaborative policy space such as the forum is a major project achievement in itself.

Instances of policy shifts were also seen in the BINDS project in the Philippines. This project supported local government units in creating laws for the improved management and greater conservation of natural resources, as well as helping establish a municipal DRR and management council for the enhanced governance of disaster risk management activities at the local level.

5. FINDINGS: CASE STUDIES

The seven sub-sections that follow provide an analysis of the manner in which a selection of Oxfam projects contributed to building resilience. Each of these sections answers four key questions (listed in Section 2) by drawing on Effectiveness Reviews, Evaluation Reports, qualitative reviews, a range of ancillary project documents and data from semi-structured interviews with Oxfam staff.

5.1 Senegal: R4 Rural Resilience Initiative²

This project combines DRR measures with financial management tools that aim to support farmers to absorb the impacts of shocks and stresses and invest in their livelihoods. It spans community-based DRR measures, the introduction of savings groups, access to weather-indexed insurance, support to agricultural production and access to credit. As the project focused on areas characterised by high food insecurity, the project showed only small changes in enhancing resilience capacities, with most project inputs and evidence focused on absorptive capacity. As the project evolves, it has the potential to further improve protection of livelihoods and enhance women's position in the household.

5.1.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

The clearest evidence of impact from this project is in enhancing absorptive capacity. Beneficiary households were better able to protect themselves from shocks, with fewer negative coping strategies employed during the lean season than in comparison communities. Intra-village solidarity increased, as did early uptake of financial tools such as weather-indexed insurance and 'social funds' in savings groups. This shows potential for Oxfam and partners to build absorptive capacity measures beyond the lifespan of the project.

Consumption and food security: The economic situation in Senegal's arid regions worsened considerably during project implementation, directly testing the absorptive capacity of beneficiary households. Both beneficiary and comparison households saw food consumption and production decrease, and thus had to use more strategies to mitigate their food security challenges. The project tracked a Coping Strategy Index (CSI) (measuring the frequency and intensity of behaviours households adopt to cope with food shortages), with high scores indicating adoption of more negative coping strategies. Comparison households' CSI score increased by 7.8 points, project households' score by 1.7 points. This shows that both comparison and beneficiary households struggled to maintain food consumption, though beneficiary households were relatively better off than their counterparts. This was true for the Kolda region, where beneficiary households also had a lower CSI score than comparison households. In both regions, the main strategies to meet consumption needs were (1) buy on credit or borrow food, (2) seek alternate activities, (3) use savings and (4) borrow money.

Maintaining food consumption is a cornerstone of absorptive capacity, and beneficiary households consistently spent more than comparison households on food products. Importantly, this expenditure represented a smaller share of total monthly expenditure than for comparison households. This ability to allocate resources to food without compromising other expenditures is positive, but it does not necessarily translate to increased food security. Indeed, Food Consumption Scores (which reflect number of meals per day for adults and children) decreased

slightly for beneficiaries, from 59% to 54% between March 2013 and March 2015. Comparison households witnessed a much larger decline in their Food Consumption Score, from 56% to 29%, which suggests the project mitigated what could have been a much larger dip in food security indicators. Still, the project's efforts did not help households improve food security indicators in the face of the hardship experienced over the timeline of the project.

Livelihood diversification: Access to one or more additional sources of income is an important marker of a household's capacity to withstand a shock or stress. Households in the project areas are heavily dependent on agriculture for their livelihoods, as it provides over two thirds of household income. This leaves these households financially exposed in the event of a drought or other climate stresses. Households in both project and comparison households have some form of livelihood diversification, although this remains a small portion of overall income. Most beneficiaries listed 'small trade' as a secondary activity; non-beneficiaries were more likely to engage in livestock-breeding. Livestock are an important cash reserve for rural households, but remain vulnerable to the same climate stresses as agricultural activities. The Evaluation Report does not detail further what 'small trade' entails, though these activities are likely tangentially related to project logic through savings groups and financial trainings that aimed to support households to make more resilient investments.

Savings: Although savings are critical to provide a buffer for short-term needs in the event of a shock, the Evaluation Report does not detail levels of savings among project beneficiaries and comparison households. Still, interviews with programme staff showed participation in savings groups reinforced social cohesion. In some intervention areas, savings groups decided to put in place a 'social fund' to support each other in times of stress or shocks, directly contributing to local absorptive capacity. According to the evaluation report, when households resorted to coping strategies in the face of rising food insecurity, more beneficiaries reported using their savings than comparison households (35.8% of beneficiary households vs. 24.3% of comparison households). This may indicate that beneficiaries have more savings to rely on, but follow-up research is needed to support this conclusion.

Weather-indexed insurance: According to Oxfam staff, the introduction of insurance in the project area increased confidence in financial risk transfer tools and played a small role in protecting farmers against the impacts of drought, thus marginally enhancing absorptive capacity. The first year, the programme introduced a 'dry run' to test the insurance and see if the index chosen worked on the ground. It was adjusted to correspond to the needs of small-scale farmers, who cultivate different crops than large-scale producers (for whom insurance is often designed). In the first intervention year, nearly 2,000 farmers enrolled, 52% of whom were women. In this first year, the index was triggered by lack of rainfall and 300 farmers received a small indemnity for their crop losses. The next year, over 3,700 farmers signed onto the scheme. In terms of impacts, Oxfam staff stressed that communities had developed trust in the idea of insurance; evidence shows beneficiaries had begun asking about health insurance and livestock insurance. Although the insurance was successful in its role in providing some protection when the index was reached, it did not encourage farmers to invest more in agriculture, which is one of the core assumptions behind its introduction. As the insurance had been introduced two years prior to this report, it is likely too soon to observe the insurance's potential spillover benefits into agricultural production and other livelihood activities.

Adaptive

The project achieved some success in increasing adaptive capacity. Beneficiaries showed some positive change in asset ownership compared with comparison households. The project also showed some improvements with regard to use of improved seeds, which yielded significant improvements in rice production and increased household nutritional self-sufficiency.

Production: Although agricultural production in cereals suffered across Koussanar region, the initiative still managed to support adaptive capacity for agriculture, particularly with regard to rice production, which is a staple crop and forms the basis for the Senegalese diet. Beneficiaries adapted low-lying lands for rice production and increased irrigation. This helped them increase average rice production by 223 kg between 2013 and 2015; comparison households saw their production increase by only 20 kg over the same period. Oxfam staff said field visits showed beneficiary households were no longer buying rice on the market, but could produce enough to meet their own consumption needs.

Assets: Beneficiaries improved asset ownership over the course of the project. The evaluation report takes sources of energy as one indicator. Flashlights remained the main source of lighting, with 79.2% of beneficiaries and 88.7% of comparison households using these. The decrease in flashlight usage by beneficiaries was complemented by an increase in better sources of lighting, including solar panels. In 2013, no households used solar panels. By March 2015, 6.2% of beneficiaries and 1.2% of comparison households had solar panels. Similarly, usage of firewood has gone down significantly more in beneficiary households. Beneficiary households using charcoal increased by over 6%, compared with a 1% increase among comparison households (where previously firewood had been the dominant source of energy). These changes suggest savings groups and financial training are helping beneficiaries upgrade their sources of energy and their household assets.

Credit: In terms of adaptive capacity, a core assumption is that access to credit will facilitate productive investments for households. Indebting households to meet basic needs is not in their self-interest, and only renders them more vulnerable to shocks and stresses. Oxfam staff explained that cash-strapped households in rural Senegal often use credit to get through the lean season rather than for agricultural inputs or equipment that increase production. To mitigate this risk, the project focused on pairing access to credit with financial education to support households if they chose to use loans. Thus far, the project has not furnished evidence that credit has been invested in productive enterprises. Although beneficiary households do allocate a significant portion of their incomes to repaying loans, this cannot be considered a component of strong adaptive capacity without further information on how these loans were invested.

Transformative

Interviews with Oxfam staff highlighted that the project has enhanced protection for vulnerable people, with fewer households resorting to negative coping strategies like selling livestock. The project has not 'transformed' well-being, however, and people are still poor and exposed to a variety of stresses. It may be too early to see such impacts, or this goal may be too ambitious for a project focused on small-scale DRR, risk mitigation and risk transfer activities. This said, the project has effected a few indicators that lay the groundwork for transformation, notably in gender roles and social cohesion among communities.

Social capital and cohesion: Focus group discussions and interviews revealed that solidarity had increased among people involved in intervention activities. The evaluation report attributes the newfound solidarity to the community activities organised by the project, including savings groups. In some cases, savings groups established a 'social fund' to support members in times of crisis, demonstrating a willingness to extend social protection to neighbours on a micro level. Furthermore, Oxfam staff stressed that meeting regularly reinforced social cohesion. Community members who worked together on a DRR project or who attended savings groups had stronger solidarity and better intra-village relationships. This solidarity is a basis for transformational change, but in this case is a better indicator of absorptive capacity than transformation.

Gender dynamics: The project benefited from a strong participation of women, in manual DRR labour, savings groups, improved agricultural techniques and uptake of insurance. Even in early studies of risk perception in project communities, women showed more willingness to engage in

savings groups and insurance than men. Oxfam staff explained anecdotally that capacity-building and inclusion of women in community groups brought new dynamics into the household and communities; women were more willing to speak in public forums with them, had more leadership positions and were able to use income from home gardens and agriculture activities to meet household needs.

5.1.2 To what extent were Oxfam’s interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

This project focused largely on resilience to climatic risks, although the areas for the pilot were chosen based on a multidimensional analysis of risks including food security, nutrition, livelihoods and demographic shifts. Agricultural production and food security indicators are closely linked in project areas, with food security suffering any time agricultural production declined. Beneficiaries were chosen for their high levels of poverty and exposure to climatic risks, and some more vulnerable households were targeted for specific interventions, including weather-indexed insurance or food for assets activities. In Tambacounda and Kolda regions, populations had relatively low access to basic services.

The project took a gender-sensitive approach to supporting vulnerable populations. This was particularly strong with regard to female-headed households, which are part of a wider trend of a rising proportion of households led by women in Senegal. Female-headed households increased from 19% of households in 2005 to 27% in 2011. In Koussanar, the percentage of such households was below 4%, significantly lower than the average across rural Senegal. Still, the proportion increased in the beneficiary group owing to migration or death of spouses between 2013 and 2015. The Evaluation report argues that project support to female household heads had helped them manage their position. Participants of focus group discussions that fed into the evaluation showed the economic opportunities savings groups created helped increase women’s responsibilities within the community.

5.1.3 To what extent did Oxfam’s interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

Financial instruments, trainings, and saving support groups were the core building block for absorptive and adaptive capacity in this project, creating new opportunities for investments into livelihoods. Given that preliminary results from the Evaluation Report show that asset levels increased marginally over the course of the project (their score increased by 1.7%, compared with negative 12.4% for beneficiary households), these financial instruments appear to have contributed to households being able to obtain and maintain assets – and thus support adaptive capacity.

Additionally, savings may have allowed beneficiaries to maintain consumption levels to a higher degree than their counterparts, with 36% of beneficiaries in Koussanar reporting using savings to cope with food stress compared with 24.3% of comparison households. Savings groups may have helped people augment financial capital and maintain asset ownership. Results from the preliminary Evaluation Report show beneficiary households were wealthier than comparison households dealing with the same climatic stresses.

Research shows that holding assets appears to lead to positive social, behavioural, psychological and civic outcomes (Boshara, 2010). In this case, high participation of women in savings groups may have other positive spillover effects, although data from the evidence review were inconclusive and did not illustrate the different impacts of the crisis on men and women or intra-household dynamics. Still, the evaluation report details some clear successes: women comprised 82% of participants savings groups in Tambacounda and 73% in Kolda.

These savings ultimately helped contribute to absorptive capacity, allowing households to purchase food products during a period of stress.

The project had a credit component, but the Evaluation Report mentions that only 14 farmers accessed loans through the project. As a result, evidence for the impacts of loans were not clearly linked to resilience outcomes at this stage of the project.

5.1.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

Social change process – empowering: Focus groups discussions revealed that saving groups created economic opportunities for women that increased their responsibilities within the community. By and large, women were the primary participants in savings groups, giving them access to resources and financial knowledge that supported their absorptive capacity. In general, augmenting people's capacity to save contributes to absorptive capacity because it provides a household reserve in the event of a shock. The process used to realise empowerment for women was primarily economic but it is important to note that gender empowerment goes far beyond women's participation in the financial sphere. It also mandates the equitable and meaningful participation of women in social, cultural and political processes. Interviews with Oxfam staff showed women were in leadership positions in community groups and had high participation in insurance, savings groups and community DRR activities.

Social change process – securing and enhancing livelihoods: Through financial tools, this project aimed to secure and enhance livelihoods and allow households to better plan for and mitigate against risks. Savings in particular were meant to enable farmers to build a financial base to invest in their livelihoods. Insurance, too, was designed to allow for investments into agriculture inputs and equipment, supporting adaptation to climate stresses. Financial education that accompanied these interventions is likely to have built awareness of how to best allocate resources and investment in productive activities. A breakdown of expenditures shows participants spent nearly twice as much as comparison households on agricultural inputs and farm equipment in Koussanar. Additionally, project households spent less than comparison households on celebrations like weddings and funerals, which was the third highest monthly expense for comparison households at 13,300,000 FCFA, compared with 8,610,000 FCFA for beneficiary households.

One proxy for how well households were able to 'secure' their livelihoods is looking at levels of polygamy, as polygamy is associated with better economic conditions in these regions of Senegal. Both beneficiaries and comparison households decreased in terms of the proportion of households in polygamous arrangements, although this decrease was much higher for comparison households, at 57% for non-beneficiaries compared with 7% for beneficiaries. If households that abandoned polygamy were less capable of sustaining their livelihoods, this demonstrates that beneficiaries were better able to maintain their families, livelihoods and traditional practices than comparison households subject to the same economic and climate stresses.

Multi-stakeholder collaborations:

The R4 Resilience initiative spans a number of countries and has a few different models for multi-stakeholder collaborations. Oxfam staff described these strategic partnerships as challenging. In Senegal, the World Food Programme is responsible for DRR activities and insurance, while Oxfam focuses on delivering financial education and access to credit. All partners have separate funding strategies, and Oxfam is responsible for its own financing. Oxfam project staff described the separate funding as the main obstacle to efficient collaboration between partners.

On the ground, the project works with a number of local and national partners, including a para-public company that provides insurance called the National Insurance Company, a local non-

governmental organisation (NGO) called La Lumière and various credit agencies and rural development agencies. Before the start of the project, the para-public insurance company was accustomed to providing weather-indexed insurance for large-scale producers. Large-scale producers grow different crops and use different techniques than small-scale farmers, thus requiring different 'trigger' indexes for receiving indemnities. The collaboration with Oxfam allowed the National Insurance Company to test and develop thresholds for small-scale farmers' weather-indexed insurance. Oxfam subsidised credit in the first year, aiming to build confidence in the value of insurance as a risk transfer tool. In the first year, some farmers received an indemnity pay-out, demonstrating that weather-indexed insurance for small rural producers can work.

5.2 Nicaragua: Climate Change Adaptation among Small Producers³

This project aimed to work with small producers to improve their understanding of the impacts of climate change on their lives and livelihoods and to build their capacity to engage with the changes positively. Project participants received a programme of support, including training on improved techniques for crop production and soil management. They were also provided training on the selection and storage of seeds, on livestock management and on protection of the local environment. A key element of these activities was to build an understanding of climate change and its effects on food security and livelihoods, and to encourage experimentation and adaptation. A revolving credit fund and risk management committees were also established at the community level. Crucially, the project aimed to have an impact not just on the 120 direct participants and their households, but also to have 'spillover' impacts on 76 indirect beneficiaries through knowledge transfer.

5.2.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

The project resulted in significant positive changes across a number of characteristics of absorptive capacity such as crop diversification, the development of a risk management plan and community action on risk mitigation. Other characteristics, such as those on grain storage, also yielded positive results but were statistically less significant. Increasing crop diversification and grain storage signifies changes at the household level, whereas the development of a risk management and community-level action signify changes at the village and community levels.

Crop diversification: A household was understood to have scored positive on this count if it farmed at least two crops in the 12 months prior to the survey. Just under 56% of project households met this threshold compared with 41% in the comparison group. This was primarily because the project increased the use of kitchen gardens and forest pasture land, which resulted in a greater variety of crops grown and multiple crops being grown at the same time. More specifically, prior to the project, the main agricultural outputs included rice, beans, sorgho and vegetables and the project expanded this basket to include maize, plantain, cassava, watermelon, chilli, cucumbers and chitloma. The difference between the comparison and intervention group demonstrates that, apart from the diversity of the crops, the intervention group was also growing two types of crops concurrently. Crop diversification is indicative of absorptive capacity as it allows households to consume or sell some crops should others fail owing to one hazard or another.

Risk management plan: This characteristic is multidimensional as it plans on capturing (1) the existence of a risk management plan at the community level; (2) whether this risk management plan was updated in the past three years and (3) whether the respondent has some

understanding of the contents of the plan. The project showed positive changes on this variable (32.3% of the intervention group responded positively to this vs. 13.5% of the comparison group). This positive shift is entirely in line with the logic of the project and its theory of change because one of the activities the project focused on was the establishment of risk management committees at the community level, which were then charged with updating these plans and ensuring the community was aware of them. Also, a key objective was to systematically increase the capacity of smallholders to engage with the impacts of climate change, and the consolidation and propagation of risk management plans is widely seen as a key strategy to achieve this.

Communal actions to mitigate risk: Households scored positively if the respondent was aware of at least two types of activity that had been carried out in the community to mitigate risk during the previous 12 months. The project showed positive changes on this variable (59% of the intervention group responded positively; 41.5% in the comparison group). Again, this change is strongly linked to a wide range of risk management actions at the community level. These included establishment of risk management committees (discussed in detail under the section on transformative capacity) and included trainings on improved storage of grains, environmental management for risk reduction and development of community-level risk management plans. The project also ensured communities had access to medical kits and other emergency equipment to help them deal with emergencies more effectively. These activities all contributed to delivering a positive change on this characteristic.

Grain storage: The storage of grains using techniques that protect them from a variety of shocks and stresses supports communities in maintaining consumption and, consequently, well-being. Therefore, one of the objectives listed in the project proposal reads, 'The target population at risk of famine will have established strategic grain reserves as an adaptation measure in case of a drop in production levels as a direct impact of climate change.' The project fully intended to improve the capacity of communities to store criollo maize and criollo arroz grains in metal silos that were distributed. Even though the Effectiveness Review does not find statistically significant positive results for the intervention group vs. the comparison group, the other project documents do note that on average 6% of the maize produced was stored/saved by direct beneficiaries.

Adaptive

The project resulted in significant positive changes across a number of characteristics of adaptive capacity, which included tree planting, understanding climate change and ability to influence others. Other characteristics such as access to credit and increases in crop production were part of the project logic but no positive changes were seen. Again, changes in adaptive capacity were seen at the individual, household and community levels. Improvements in understanding climate change and in ability to influence others took place at the level of the individual. Adoption of adaptive agricultural practices and increases in crop production took place at the household level. Improvements in tree cover have cross-scalar implications but can be seen to improve adaptive capacity at village level.

Adoption of improved practices: A key component of CCA is the adoption of new and improved ways of securing livelihoods, and this project has had a markedly positive impact on this characteristic. This is seen in, among others, the fact that members of the intervention group demonstrated much higher use of organic fertilisers (35% vs. 22% in the comparison group), use of organic pesticides, deploying new sowing techniques, using new seed varieties and adoption of crop rotation and mulching. These positive findings of the Effectiveness Review are in line with the general thrust of the project proposal, which states that smallholders will have implemented improved agricultural practices to adapt livelihood practices to climate change. The 'general strategy' within the proposal specifically lists the use organic fertilisers and pesticides⁴ as well as new seed varieties suited to changing conditions.

Tree planting: Improving green cover by planting trees yields a number of benefits and helps communities adapt to changes in a number of ways. Trees can help stabilise slopes and bind soils to prevent soil erosion; they can also be harnessed and sustainably supplement livelihoods (provided harnessed trees are replaced). For a household to score positively on this characteristic, it must have planted at least 10 trees between 2012 and 2014. A total of 59% of the intervention group met this requirement vs. 31% of those in the comparison group. The questionnaire also asked respondents how many trees had been planted in 2010 and 2011 – and how many of these trees had survived. A median of 45 trees had been planted by project households (compared with 25 trees by comparison households). Of these, a median of 19 trees had survived until the time of the survey (compared with 15 trees for the comparison households). The most popular type of tree planted by project households was *madero negro*, along with another four species (*marango, cedro, caoba and pochote*). *Madero negro* plays a number of adaptive functions including soil stabilisation and heightened nitrogen fixation. Interviews with key informants revealed that an additional objective of tree planting in this context was to retard soil degradation and improve groundwater retention.

Understanding climate change: Learning about shifts in environmental dynamics and understanding the potential local impacts of global climate change are essential in adapting to future conditions. This is why a key component of the 'general strategy' in the project proposal was a climate change training and awareness-raising plan that will be implemented using existing research on climate phenomena and food security. The Effectiveness Review also outlines how the project arose from a concern that the impact of climate change on rural livelihoods in the north-west of Nicaragua was becoming more severe, with increased patterns of irregular rainfall and prolonged dry seasons leading to soil degradation, the emergence of new crop diseases and food crises. Smallholder farmers were seen as lacking information about these changes and what they could do to reduce their risks, and were continuing to use traditional production techniques that left them increasingly vulnerable. Furthermore, the project document outlines how awareness of climate change was raised through workshops delivered by the project team on soil and water conservation and on the impact of climate change on agricultural production, food security and agri-business. This emphasis on enhancing an understanding of climate change translated into just over 45% of households from project communities being aware of the concept of climate change (they mentioned at least three types of risk that climate change brings to their household), compared with 25% of households from comparison communities.

Ability to influence others: A defining feature of this project was that it was predicated on the ability of 'direct' beneficiaries transmitting learnings to other community members. A key component of the project proposal focuses on outlining the manner in which the project will effect a 'campesino-to-campesino' (smallholder-to-smallholder) transfer of knowledge for the use of CCA techniques, methods and strategies. Using volunteers who first apply the new knowledge gained to improve farming techniques on their own plots and then use these to demonstrate the improved techniques to others, the project aimed to spread awareness of climate change to a larger group of smallholders. This is why 73.9% of the intervention group reported that they had shared knowledge of production techniques with other household members or with others in the community, and that these others had at least sometimes applied what they had told them (vs. 65.9% in the comparison group).

Crop production: An important characteristic that was part of the of the project logic but on which no significant change was noted in the Effectiveness Review was an increase in crop production. Households scored positively in terms of crop production if they sold at least one of their crops – that is, the household produced enough to be able to sell the surplus. Lack of positive change on this could have a large number of reasons but perhaps the most reasonable explanation is that the assimilation of new knowledge on climate change and ways of adapting to these changes will impact crop production over the long term and not merely in the three years that the project was operational.

Transformative

The project led to improvements in transformative capacity mainly through better organising communities through the establishment of risk management and preparedness committees and by through certain improvements in the position of women. Changes in women's empowerment mainly have implications for the individual and household level, but improved cooperation and collaboration for better risk management holds the potential to effect transformational change at the community level.

Involvement in risk management and emergency preparedness committees: This characteristic examines households' involvement in a risk management and emergency preparedness committee. A household scored positively for this indicator if the respondent was aware of the existence of a risk management and emergency preparedness committee within the community and a household member had attended a meeting during the previous six months. It is of course debatable whether this is a better indicator of absorptive capacity as opposed to transformative capacity, but it has been accommodated in this section as it signifies an increasing degree of leadership and social cohesion in the community. This is because the effective running of these committees necessitates a degree of self-organisation and cooperation. Leadership was also evident as interviews with key informants also reveal that members of these committees were charged with liaising with government authorities to ensure improved coordination for effective risk reduction. The Effectiveness Review for this project finds strong evidence of increased involvement in risk management and emergency preparedness committees as well as knowledge of a risk management plan for both direct project participants and other cooperative members (43.5 % of the intervention group vs. 21.3% of the comparison group). This flows logically as the project set out with the intention of directly involving 120 smallholders and establishing these committees. It is entirely likely that mere participation in risk management committees is not a signifier of transformative capacity, but this increased participation combined with other markers of positive change such as an increasing understanding of climate change, improved production practices and increasing crop diversification signifies a shift in thought and reflection.

Women's empowerment: Section 3 examined the manner in which empowerment and shifting power relations can be an important pathway to transformational change. This initiative helped alter the position of women beneficiaries to a certain degree. In households that were direct beneficiaries of projects, women had a much greater say in decision-making on crop cultivation. Similarly, 87% women beneficiaries covered by the project actively offered their opinion on farming activities versus only 76% in comparison households. Additionally, women covered by the project were also likely to have their voices heard in community meetings to a greater degree than those in comparison communities. While the Effectiveness Review clearly highlights that women had a greater say in decision-making there was no evidence that the project had any effect on many other indicators of women's empowerment, including land ownership, involvement in financial decisions and time use.

5.2.2 To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

This intervention was informed by an analysis of existing risks posed by environmental degradation and a changing climate. The proposal talks about how increasing aridity in the north and west of the country coupled with irregular rainfall patterns is causing multiple, concatenate crises that include food shortages. Despite the country's history of conflict and instability, the project documents do not carry any analysis of politics risks. This information has been imputed from reading a variety of project documents but no document carrying systematic vulnerability or risk analysis was part of this review.

5.2.3 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

The main building blocks employed included CCA and livelihoods. This was evident from a number of activities that took place, including the propagation of new adaptive agricultural techniques, encouraging crop diversification and raising awareness on the impacts of climate change. Subsidiary building blocks include DRR and NRM, as seen through activities such as risk management planning, establishment of emergency preparedness committees and tree plantation.

5.2.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

The project focused sharply on the inclusion of women. All direct target beneficiaries of this initiative were women, who received the programme of support described at the beginning of this section. At the same time, the project contributed to a number of changes in women's empowerment and their position in the community. The evaluation report talks about the changing self-perception of women who, through the project, realised that they could be income generators within their household. This apart, according to the Effectiveness Review for this initiative, the project appears to have empowered women to better influence decisions about crop cultivation and other farming activities. While these improvements in women's empowerment were seen, there are no significant differences in the ability of women to control spending and other financial decisions.

Social change process – securing and enhancing livelihoods: This key social change process came about because the primary thrust of the initiative was to ensure smallholder farmers could strengthen their livelihoods. This was seen through activities that contributed to crop diversification, grain storage and adoption of new agricultural techniques. These activities were aimed at enhancing crop yields but the Effectiveness Review found no statistically significant results on this count.

Social change process – informing and learning: This pertains to processes that develop information and knowledge to support decision-making and action. This was seen through activities that helped enhance an understanding of climate change, establishing a risk management plan and supporting the transfer of knowledge from direct to indirect beneficiaries. Learning was a key component of this initiative as it hinged on the transfer of knowledge between direct and indirect beneficiaries. Apart from the details listed earlier on in this section, interviews with key informants reveal that knowledge outreach was achieved through a network of promoters/facilitators (made up of about 20 women) who worked through events such as talks, exchanges and visits to the farmsteads. This allowed 'indirect' beneficiaries to get to know and reflect on the effects of climate change, and imbibe some techniques, practices and strategies to reduce their effects.

Social change process – empowerment: Changes in levels of empowerment were witnessed through activities that led to improvements in the degree to which women influenced household decisions. Additionally, joined-up action on risk management as seen through participation in risk management committees was reflective of improving power dynamics. Key informants were also keen to highlight that the community undertook a high degree of leadership in running risk management committees and through formulation/updating of risk reduction planning. They also pointed out that women actively promoted resilience-enhancing behaviours within indirect beneficiaries of the project, which was also emblematic of a shift in the position of women in this conservative society.

Multi-stakeholder collaboration: The project was predicated on a multi-stakeholder approach and leveraging the power of smallholder farmers themselves. This was primarily seen through the targeting of only 120 direct beneficiaries, who were then leveraged to effect positive changes by raising awareness on what they had learnt among other members of their cooperatives and among their neighbours. Also, during the project, specific participants were trained as local promoters, established demonstration plots on their land and used these to spread awareness on new techniques they had learned. At a higher level, the entire project

was only made possible through collaboration between Oxfam and the Centro para la Promoción, la Investigación y el Desarrollo Rural Social (the Centre for Promotion, Research and Rural Social Development).

5.3 Pakistan: Community-based Disaster Risk Management and Livelihoods Programme⁵

The four-year Community-based Disaster Risk Management and Livelihoods Programme in Pakistan started in June 2008 in four districts located in the provinces of Punjab, Sindh and Baluchistan. This deep dive/case study focuses on the work of two of Oxfam's partner organisations in Muzaffargarh and Rajanpur districts, both of which are located in Punjab; in these districts the programme supported over 21,700 people living in 60 villages. The overall aim was to reduce people's vulnerability 'particularly by reducing loss of life and assets and promoting livelihood resilience in times of extreme flooding' (Hughes, 2012: 1). The main interventions at the community level included DRR training (including first aid and search and rescue) and village disaster management planning (absorptive capacity); construction of raised emergency shelters, culverts, water harvesting ponds and 'flood-friendly' pit latrines (absorptive capacity); livelihood, agriculture and animal husbandry training (adaptive capacity); and the distribution of goats and hand pumps to exceptionally vulnerable households (absorptive capacity) (Walsh and Fuentes-Nieva, 2014: 5). Eighteen months after interventions at the community level began, the programme area was hit by extreme flooding (July–September 2010); this provided Oxfam with an opportunity to evaluate the vulnerability reduction component of the programme in the face of an extreme event. The results in the analysis are in some cases disaggregated by district; however, the Effectiveness Review did not analyse the differences between the results.

5.3.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

The Effectiveness Review investigated the extent to which the supported and unsupported households possess characteristics assumed to be important for successfully coping with and recovering from extreme flooding events (absorptive capacity). Overall, the supported households scored more positively on most of the resilience characteristics, and there was 'strong evidence that participating households were better prepared to manage flood-related risk...and lost fewer assets during the 2010 floods' (Walsh and Fuentes-Nieva, 2014: 2). The qualitative report highlights that this was due to better access to information and knowledge of what to do when a flood occurs (both characteristics of absorptive capacity).

Disaster preparedness and disaster risk reduction: Awareness of disaster management strategies can help people persist during shocks and stresses, demonstrating absorptive capacity. The Effectiveness Review found there was very strong evidence that the programme generated positive changes in terms of reducing flood-related risk. Participating households were more aware of disaster management plans and/or the contents of these plans (77.6% of the intervention households vs. only 10.6% of the comparison group in Rajanpur district, and 79.2% vs. 3.9% in Muzaffargarh district). Participating households were also found to be more involved in disaster preparedness meetings (65.3% vs. 4.9% in Rajanpur district and 64.8% vs. 0% in Muzaffargarh district).

Early warning systems: Oxfam programme staff highlighted that, as a result of the programme, capacity to use early warning information and systems had been enhanced at two levels: at the community level, people were more aware of risk and hazard information, and some volunteers were trained to be part of the Rescue and Emergency Department; and at the national level, programme partners helped build the capacity of district government members and district interventions in terms of early warning information and systems; this included

helping establish an Emergency Resource Control Centre used to inform and disseminate early warning information to government departments and communities. These interventions increased absorptive capacity through helping people prepare for and reduce their risk of flooding. The Effectiveness Review noted that participating households received approximately two days' advance warning of the floods, versus only one day in the comparison households; this increased their ability to take intentional protective action, including evacuating themselves and their assets before the floods hit. Participating households consequently lost less livestock, grain, equipment and tools during the 2010 floods than the comparison households. The Effectiveness Review stated that the advanced early warning was so effective owing to improved networking and communication opportunities between various stakeholders at different levels, as well as the fact that early information was translated for local use, thereby enhancing 'local capacity to act on information' (Walsh and Fuentes-Nieva, 2014: 10).

Livelihood diversification: There is no evidence the programme helped promote livelihood diversification (which can enhance absorptive capacity as people can rely on other sources of income during stress/shock). The qualitative study highlighted that this may be because livelihood diversification 'per se was not a programme objective, and programme timeframes and implementation further constrained its achievement' (Walsh and Fuentes-Nieva, 2014; 12). Despite being one of the programme's expected results, 62.9% of the participating households, compared with 62.2% of the comparison group in Rajanpur district, and 68.6% vs. 57.2% in Muzaffargarh district, were seen to have dependency on a greater variety of climate-dependent livelihood activities (particularly those not dependent on climate/presence of flooding). Oxfam programme staff highlighted that the programme's livelihood interventions focused on traditional activities (such as livestock and agricultural production), rather than on new economic opportunities or options for livelihood diversification. In addition, the qualitative review highlighted that there were a number of local constraints to livelihood diversification, including lack of secure land tenure, displacement, and poor access to state and other services and support, particularly by women. These are all characteristics that limit people's absorptive capacity.

Access to assets and contingency resources: One of the core components of absorptive capacity is the ability to rely on a source of money in the event of a shock or stress. This can be in the form of a social protection programme, an insurance policy or (most often in remote underserved areas) savings, remittances and convertible assets. Interestingly, participating households went from being relatively poorer with less asset ownership at the baseline to being relatively more wealthy, 'with a positive change in relation to household asset ownership over time vis-à-vis their comparators' at the time of the data collection (Hughes, 2012: 32). Participating households reported being in a better position to meet household needs after the intervention, and they also experienced less asset and related loss during the 2010 floods, thereby demonstrating absorptive capacity. The greatest positive change in asset ownership was in the acquisition of household items, including televisions, fans and fridges; and of farm equipment, such as tractor wagons. The analysis did not investigate why households chose to buy these items rather than other productive assets. Furthermore, the qualitative review found gendered differences in asset ownership, with women demonstrating less access to or control over incomes and livelihood assets than men, meaning their absorptive capacity depends on intra-household dynamics.

In terms of being able to rely on savings, 47% of participating households in Rajanpur district reported being able to survive off of savings or sell assets to cope with a shock, compared with less than a quarter of comparison households; in Muzaffargarh district there was only a 1% positive difference between the intervention and comparison households in this area. Households were assigned positive scores depending on the length of time they would be able to rely on this coping strategy, although the number of months was not provided in the Effectiveness Review. Nevertheless, while contingency resources can be used to recover quickly after a shock, Section 3 also described how post-disturbance coping behaviours can lead to poverty traps, as the strategy may push a household below the critical functioning level.

Access to self-help groups and social capital: Being able to access self-help groups can enhance social cohesion, and also provides people with support in time of need (e.g. flooding). The Effectiveness Review found that in Rajanpur district 78.2% of intervention households demonstrated participating in and receiving support from community self-help groups, compared with only 5.6% of those in the comparison group; in Muzaffargarh district this figure varied more greatly, with 73% of participating households vs. less than 1% of comparison households participating in and receiving support from such interventions.

Access to safe drinking water: Access to safe drinking water is important for general well-being as well as helping prevent disease, demonstrating absorptive capacity. The programme helped install 15 hand pumps in Muzaffargarh district, which has improved access to safe water and also reduced the risk of disease. The third-year interim report highlights that access to 'sufficient water for drinking and irrigation purposes has increased house hold income by 10% due to increase in crops yield' (Ahmad, 2010: 18). In addition, women's organisations participated in site selection for hand pipes, to try and reduce the time and domestic burden of collecting water as well as incidences of violence.

Adaptive

The programme specifically aims to support adaptive capacity and the results demonstrated that the 'supported households emulate characteristics assumed important for reducing risk associated with extreme flooding events and, to a certain extent, adapting to emerging climate trends and uncertainty to a far greater extent than the comparison households surveyed under the study' (Hughes, 2012: 32–33). Nevertheless, it is important to note that, because of lack of a baseline, the results may be biased and simply 'reflective of these initial baseline differences' (ibid: 18).

Access to seasonal forecasting and climate information: The Effectiveness Review highlights that 'positive and highly statistically significant differences were found for the characteristics relating to access to seasonal forecasting and disaster preparedness information' (Hughes, 2012: 21). A total of 75.3% of intervention households in Rajanpur district reported greater use and service satisfaction in terms of access to seasonal forecast information, compared with 23.3% of non-intervention households; in Muzaffargarh district the difference was even greater (74.8% vs. 15.7%). In addition, 62.9% of intervention households in Rajanpur district and 43.4% in Muzaffargarh district reported greater use and service satisfaction of climate trend information, compared with 5.1% of non-intervention households in Rajanpur and 3.4% in Muzaffargarh district. Accessing such information on climatic conditions can help inform adaptive decision-making, but in this case the Effectiveness Review highlights that the programme appears not to have affected attitudes to climate change. A total of 35.3% of intervention households in Rajanpur district and 62.3% in Muzaffargarh district demonstrated a positive change in attitudes to climate change, as opposed to 45.2% of non-intervention households in Rajanpur district and 53.5% in Muzaffargarh district. It was not evident why there was a more positive change in Rajanpur district among non-intervention households.

Livelihood innovation: Section 3 argued that adaptive capacity results from accessing a diverse array of productive assets (land, credit, markets, livestock and natural resources), which can help facilitate the use of information, changing market/climatic conditions and new practices. Statistically significant differences were found between the intervention and comparison households for all the characteristics in the livelihood innovation dimension, which included reported greater use and service satisfaction of farming extension support (53.5% of intervention households vs. 7.3% of comparison households in Rajanpur district and 50.3% vs. less than 1% in Muzaffargarh district), access to market information (61.8% of intervention households vs. 9% of comparison households in Rajanpur district and 48.4% vs. 10.4% in Muzaffargarh district), access to credit (30.6% of intervention households vs. 8.3% of comparison households in Rajanpur district and 16.4% vs. 6.8% in Muzaffargarh district) and access to livelihood innovation support (59.4% of intervention households vs. 4% of comparison

households in Rajanpur district and 34.6% vs. less than 1% in Muzaffargarh district) (Hughes, 2012: 23).⁶

Transformative

The programme contributed to building transformative capacity by increasing the ability of vulnerable communities to participate in decision-making processes through empowering vulnerable communities by encouraging them to become active agents of change.

Participation in decision-making processes: Through participating in disaster preparedness meetings and being more aware of their villages' disaster management plans, households have also demonstrated characteristics of transformative capacity. For instance, the qualitative review demonstrates that individuals have been involved in informing and providing early warning information about potential flooding to government authorities through the programme. Oxfam programme staff also highlighted that volunteers from community-based organisations (CBOs) have been able to join meetings with local government representatives, which enabled them to (1) share perspectives on community needs and problems and suggest solutions (some of which have subsequently been included in district disaster management plans); and (2) learn more about the local governments' plans for DRR, which they are then able to pass back to other community members, thereby enhancing two way communication and collaboration. Progress has also been made in terms of women's participation in decision-making and interventions, which the third-year interim report highlights has helped promote women's rights and the development of gender-sensitive disaster management plans (Ahmad, 2010: 4).

Empowerment: Training and increased awareness about the risk of climate change has helped support social mobilisation, and a new discourse around risk and DRR. This has empowered participating 'villagers to demand and access information that had previously been denied them' thereby demonstrating 'knowledge-based empowerment' (Walsh and Fuentes-Nieva, 2014: 14). These interventions helped communities save lives and assets during the 2010 floods and also provided them with the confidence and ability to inform others of the risks. Oxfam programme staff also reflected on the fact that the programme has influenced people's perceptions of hazards and preparedness. In addition, the programme and wider interventions in the area have helped challenge cultural perspectives about natural hazards, as prior to the programme communities often thought a flood or disaster was sent by Allah, whereas through increased awareness and understanding of hazards and risk they have demonstrated improved approaches to DRR and disaster preparedness.

5.3.2 To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

The programme area is located on the floodplains of the Indus and Chenab Rivers, and is vulnerable to flooding, which in recent years has become more extreme and less predictable; it is also based in a drought prone area. Oxfam programme staff stated that they used historic flood trend information during the design of the programme, and noted how they had never experienced the magnitude of flooding in 2010. While the government has constructed some formal structures to reduce the risk of flooding for 'the majority of the districts' residents and state owned infrastructure, the homes and agricultural fields of the supported population are situated in areas that are completely unprotected'; they are consequently a lot poorer and are unable to relocate to safe areas given their socioeconomic status and lack of political power (Hughes, 2012: 3). In terms of natural hazards, the area is also at risk of earthquakes, landslides, strong winds, cyclones and tsunamis. While Oxfam programme staff said that, through participatory planning and historic analysis, other stresses were taken into account, these were not included within the documents reviewed.

Oxfam programme staff said that all programme data collected were disaggregated and analysed by sex and sometimes age, but within the majority of documents data were not disaggregated by sex, disability, age or ethnicity. In addition, no baseline data were available,

and comparisons were made only through respondents' recall, making analysis of impact a challenge. While a gender analysis of the interventions was occasionally undertaken, the qualitative follow-up review recognised that the programme could have been improved if a gender and power analysis was included as a central component and the evaluation, including collecting data disaggregated by different groups and using a political-economy analysis of risk at different scales.

5.3.4 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

The programme draws on a number of building blocks, including CCA, WASH, strengthening livelihoods and DRR (see absorptive capacity for more information on DRR and disaster preparedness).

CCA: While the programme was not explicitly designed to address issues relating to CCA, there is evidence it has positively affected people's ability to adapt to climate trends and uncertainty. Nevertheless, the programme appears not to have affected attitudes to climate change (see section on adaptive capacity).⁷ Recommendations from the Effectiveness Review acknowledge there is scope to expand the work on CCA, looking at the impact of climate variability and climate change on livelihoods.

Livelihoods: Although there has been no evidence the programme has helped promote livelihood diversification, livelihood training and practical support has been provided through the programme since as early as 2009. In addition, statistically significant differences were found between the intervention and comparison households for all the characteristics in the livelihood innovation dimension, although the report does not explain what interventions took place to support these characteristics (see adaptive capacity section for more information).

WASH: One of the main expected results as stated in the programme's proposal includes 'reduced incidence of waterborne diseases in disasters' (Hughes, 2012: 4). Although no information is available in the Effectiveness Review or the qualitative study about this intervention, the third-year interim report shows that, in Muzaffargarh, CBOs and the local partner have been collaborating with government agencies and are participating in hand hygiene campaigns, for instance around Global Hand Washing Day and through a health and hygiene session conducted at schools. Hand pumps have also been installed, providing access to safe drinking water and reducing the spread of diseases (see absorptive capacity).

Social protection: Access to services can help promote people's capacity to anticipate or respond to change. Significantly 'greater proportions of intervention households reported being in receipt of external support (in terms of cattle, goats, agricultural inputs, food aid, cash for work food, home building support, agricultural training, livestock training, kitchen garden support, IGA [income-generating activity] training, First aid training and emergency rescue training)' (Hughes, 2012: 15); most of which were as a direct result of the programme.

5.3.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

Social change process – accountable governing: The participatory approach the programme took was successful in linking different communities and institutions. Trust between community members and the two local partners also meant 'a new technical discourse developed in the intervention villages within a relatively short period of time, enabling villagers both to demand access to information and to secure that access more readily than they had in the past' (Walsh and Fuentes-Nieva, 2014: 11), demonstrating accountable governance.

Social change process – empowering: Participating households were more aware of their villages’ disaster management plans and had participated more in disaster preparedness meetings and decision-making processes, which is a key component of empowerment. In addition, through participatory planning, the programme enhanced ‘local ownership and mobilisation of local knowledge during implementation’, as well as helping build partnerships at different scales (Walsh and Fuentes-Nieva, 2014: 10). As a result of the programme, people were empowered to demand and access information, which they were then able to transfer to neighbours not participating in the programme. Participating communities could also invite government ministries to their forums, further enhancing their voice. Community volunteers were able to inform government officials about changing water levels, and their needs were also reflected within the district disaster management plans, improving two-way communication and accountability.

Social change process – informing and learning: In comparison with non-participating households, participants were found to be more aware of their villages’ DRR plans and were more likely to participate in DRR meetings. They were more likely to have access to seasonal forecasting, climate trend, disaster preparedness and market information (see capacities section for more information). Participating households received a two-day warning (one day more than non-participating households) about the 2010 floods and were able to save more livestock, grain, equipment and tools as a result. Oxfam’s partners have also helped build the capacity of local government officials in terms of increased use and understanding of climate information and early warning systems, through multi-stakeholder dialogue and learning.

Social change process – securing and enhancing livelihoods: Participating households experienced less asset and related loss during the 2010 floods in comparison with non-participating households. Access to contingency resources, such as savings and convertible assets, and ability to meet household needs, household food security and asset ownership also increased. Yet there was no evidence livelihood diversification was promoted. The follow-up qualitative study highlights ‘the need for clear livelihood objectives, targeted interventions, and appropriate timelines if these are to be pursued’ (Walsh and Fuentes-Nieva, 2014: 14).

Multi-stakeholder collaborations: The main expected results as stated in the programme’s proposal include the establishment of CBOs, ‘with active decision-making participation of women; and increased capacity of communities, local partners and government personnel to plan and implement gender-sensitive disaster preparedness and mitigation measures’ (Hughes, 2012: 4). Oxfam programme staff stated that all groups, including the socio-economically or politically marginalised, are involved in planning and activities, and that this process is led by local organisations so interventions are culturally sensitive. Nevertheless, the interventions and programme documentation do not acknowledge who the most vulnerable are.

The programme encouraged multi-stakeholder collaboration between communities, local partners and relevant government ministries, which resulted in enhanced multi-stakeholder capacity to issue and understand early warning systems. The programme showed these relationships could be developed relatively quickly, with hugely beneficial effects, as demonstrated by the more effective response to the 2010 floods. The Effectiveness Review highlights important factors for the success of this project: building local ownership and traditional knowledge, participatory planning and action and development of vertical linkages and relationships between different stakeholders at different scales.

5.4 Nepal: Mainstreaming Disaster Risk Reduction and Enhancing Response Capability⁸

This project’s overall objective was to increase resilience to floods in communities through support to strategies that enable them to better prepare for, mitigate and respond to natural disasters. The community-level activities carried out included the formation of community disaster management committees, small-scale disaster mitigation activities, community training

on hazards, first aid and search and rescue and the establishment of a flood early warning system. These communities are spread across three river basins and are particularly vulnerable to flash flooding. Overall, the Effectiveness Review found households in project communities met thresholds for positive scores in 73% of characteristics of resilience, as opposed to 47% of characteristics among households in the comparison communities. Most of these changes were in absorptive capacity, where the project resulted in clear improvement in participation in disaster preparedness, awareness of contingency planning, and access to early warning systems.

A flash flood in September 2012 affected project areas, which allowed the Effectiveness Review to test the effectiveness of the early warning system operated in an actual flood event and to track losses incurred as a result of the flood. Although project communities took more action to protect crops and protect household assets, they lost more crops *and* assets in the floods of September 2012 than comparison households did. A few contributing factors are explored in the section on absorptive capacity. The floods may have also sparked transformative political changes, with vulnerable households relocating to safer lands, although this process became increasingly controversial as high-level politicians became involved.

5.4.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

This project highlights the inherent complexity in trying to ensure households and communities are better equipped to deal with shocks like flash flooding and heavy rainfall. Although the data show this project had particular success in building absorptive capacity, with strong participation in preparedness activities, high awareness of a disaster response plan and the establishment of a functioning early warning system among intervention households, the Effectiveness Review reveals that project communities had higher asset losses than comparison communities after a flash flood in September 2012. The flood occurred at the tail end of the project, at a time when one could reasonably expect that preparedness and mitigation activities had helped communities prepare for flooding and better protect their assets. These mixed results require qualifying the project's apparent success in building absorptive capacity, and recognising that indicators related to project outputs (e.g. participation in community disaster preparedness meetings) are not the only factors that contribute to resilience in the face of a shock. Acknowledging this does not mean absorptive capacity was not enhanced by the project, but rather takes into account the limitations of a capacity-based approach.

A few factors gleaned from project documents and interviews with Oxfam staff illuminate why communities suffered losses after the flooding.

1. **The severity of the event:** Communities were prepared for regular annual flooding, but the 2012 flash flood was described as a 'once in every 10 years event'. The Project Closure Report states that the flood did not cause damage to the extent that a flood of a similar magnitude would have done a decade previously. However, as the Effectiveness Review shows comparison households lost fewer assets in spite of having a similar exposure profile, this claim needs to be taken with a grain of salt. Comparison communities may have been better equipped to deal with floods because of external factors beyond the scope of the project. One indicator showed comparison households were cultivating a wider range of crops than project households (including drought- and flood-tolerant households), with 94% scoring positively on crop diversification vs. 81% of project households. A diversified crop profile, and particularly raising flood-resistant crops, is considered an important component of absorptive capacity for farming households.
2. **Small-scale mitigation measures were insufficient:** The project included construction of gavin walls to tide the river flow and divert the current. The flash flood

was a particularly strong event, and overwhelmed these locally produced and small-scale mitigation measures. Oxfam staff stressed that the failure of the gavin walls was the primary reason why communities loss assets and crops. The management response indicates that that a number of livestock and other assets were saved owing to effective functioning of the early warning system.

3. **Differing levels of preparedness:** Communities were not sufficiently prepared for the flood at the *household* level. Community-wide measures, such as the early warning system and the community disaster management committees, all functioned effectively before and after the flood. The early warning system reached 85% of project households before the flood hit, compared with only 21% of comparison households. Furthermore, the project had established strong linkages from local to higher-level government authorities, which facilitated the relief and response process. Although the *system* on the whole was prepared to deal with the flood, individual households had differing abilities to absorb its impacts.

Other evidence from project Effectiveness Reviews highlights the positive impact the project had in enhancing absorptive capacity. Disaster contingency planning improved considerably, with high proportions of households reporting being aware of disaster management plans and receiving disaster preparedness information, as well as high levels of confidence in the availability and reliability of early warning information in the future (98% of intervention households reported confidence vs. 30% of comparisons). Intervention households had higher levels of participation in savings groups than comparison households, and 65% of said they would be able to survive on their current savings for a month if a shock were to occur, compared with only 56% of comparison households.

Adaptive

Enhancing adaptive capacity was not a primary aim of this project, and this is also reflected in the small overall change in adaptive capacity (2% positive change in adaptive capacity index vs. non-beneficiary households). Many changes in adaptive capacity measured in the index are not related directly to project activities, such as access to credit, change in wealth indicators and cropland affected by silting and erosion. For this project, the primary indicator that drives the positive change in adaptive capacity is climate change awareness, which shows good evidence of attitudinal shifts in terms of climate change and its effects.

Climate change awareness: Adaptation to climate change requires a good understanding of the phenomenon and its associated extreme weather events. Over 83% of intervention households responded positively to awareness of climate change, compared with just over half of non-project households. Beyond beneficiaries, there were changes at higher policy levels in terms of climate change awareness. One of the project's key results was mainstreaming CCA and DRR into district planning process, which it aimed to do through trainings delivered to district stakeholders. At the time of the Project Closure Report, the Dadeldhura district had consolidated an annual development plan in which CCA and DRR were included as one of seven sectoral priorities. Project staff explained that the local disaster risk management plan guided these authorities in their integration efforts, combining scientific understanding of climate change with local priorities to prepare for climate extremes.

Environmental degradation: One indicator not directly measured in the Effectiveness Review but that comes up multiple times in project documents is the wider impacts of deforestation activities in the watershed. Environmental degradation is a stress that can directly undermine adaptive capacity, and deforestation in particular can cause erosion, silting and landslides. The field assessment report mentions that two of the target communities depend heavily on the forests, with about 93% of households considered forest users (District Development Profile 2010/11). Uncontrolled settlement in the forest area and deforestation have gradually resulted in depletion of forest resources. Furthermore, road construction with heavy equipment has caused

several landslides in the area, which has further increased the vulnerability of people living along the river.

Project communities were actually *worse off* than comparison communities with regard to the impacts of erosion and silting on their agricultural productivity, with 16% more households in project communities reporting being impacted by erosion or silting than comparison communities. A fifth of land cultivated by intervention households is affected by silt or sand, compared with 8% of land in project households. This featured a few times in focus group discussions with beneficiaries, with people explaining the problem was primarily with larger stones and boulders being carried downstream during floods that were very difficult to move from riverside agricultural lands.

Assets and access to credit: The project showed no change in asset ownership or other wealth indicators between project and comparison households. Comparison households had better access to remittances or formal earnings than project households. Comparison households also had higher access to credit (92% vs. 85% in project communities), though the levels of access to credit were high in both groups.

Transformative

Transformative capacity is described as the ability to change the 'rules of the game', altering policies and underlying risks and shifting power structures. This project has strong evidence of having contributed to higher-level changes in risk-informed planning, facilitated local community organisation, improved women's leadership in community issues and even resulted in some household relocation to less exposed areas (though this decision has become highly politicised over time).

Policy changes: The project closure report explains that the project was successful in linking DRR village, district and national development planning processes. After extensive outreach to government officials, the project resulted in the district's annual development plan highlighting DRR and CCA as one of seven sectoral priorities. A key informant interview explained that the local district risk management plan guided the district authorities, ensuring higher-level consideration of DRR was based on community priorities and planning. All empowerment efforts were grounded in analysis of community-level vulnerabilities and how women, children, and men would be impacted differently and their different disaster related needs. Indeed, nearly a quarter of supported households were involved in local district planning processes, at the village or district level, compared with less than 2% of project households. This change resulted in higher confidence in local leadership and government support in times of crisis, with 55% of project households and only 8% of comparison households reporting confidence in these authorities. Government authorities need constituents' confidence to effect transformational change. This trust in leaders is key to allowing them to identify policy windows, developing collective visions of change and creating enabling environments for higher-level changes.

Relocation to safer areas: According to interviews with programme staff, in the areas where communities reside along the riverbanks, flash floods caused about 300 communities to be displaced. Authorities and local disaster management committees stepped in to help relocate community members to safe areas, which sparked a wider movement to remove flood-affected communities from exposed lands to rehabilitated areas. This type of radical change, which ultimately shifts the risk profile communities face, is characteristic of transformative capacity. In this case, communities would be able to better protect their assets and livelihoods by replanting crops in safer areas.

Though this decision began at the community level, and the community disaster management committee was the driving force in bringing political parties to the ground, the issue has since become highly politicised. Senior political leaders from multiple parties have been involved, visiting flood-affected communities and compromising the ability of district authorities to take appropriate action, according to Oxfam programme staff. The process of relocation is divisive,

and community members have both positive and negative perceptions of the process. In some areas, this process of identifying vulnerable households and relocating them is ongoing, but it is beyond the scope of Oxfam's original intervention. Though the idea originated in participatory community disaster management committees, the issue has been captured by political elites, making any transformative changes beyond the scope of Oxfam's original intervention. Transformative capacity pertains to people's agency to make choices to transform their risks, vulnerabilities and capacities, and any actions that disempower communities (whether or not this was the case with these relocations) are not considered a valid component of a resilience capacities framework.

5.42. To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

This project is based on an analysis of hydro-meteorological risks, especially with regard to flooding in the river basin. Vulnerabilities are assessed thoroughly in each project area based on a comprehensive participatory vulnerability and capacity assessment in each community, which allows disaster management groups to understand how hazards impact men, women, children, people with disabilities and lower castes differently. This assessment forms the baseline for local decisions on disaster management by community groups, informing the hazard mapping and the DRR plan.

The project also takes into account issues of women's inclusion by creating women empowerment centres (WEC) in the early stages of the project. The project uses WECs as a platform to engage with a host of issues that affect women: violence against women, caste issues and poverty issues, among others. By making linkages to relevant issues in the communities, the intervention is able to work with broader dimensions of community vulnerabilities rather than confining itself strictly to DRR. This is also a vector for identifying female leaders and ensuring strong female participation, including of lower-caste women, in intervention activities. Over 40% of members of the community disaster management committees had to be women or from marginalised groups.

Risks associated with environmental degradation do not feature strongly in project documents, though they did come up in focus group discussions that fed into the Effectiveness Review. These emerged over the course of the programme, with issues like deforestation proving to have wider impacts.

Lastly, the project proposal considers political risks, as the project is meant to help streamline national, district and community responsiveness and preparedness for disaster events, which requires strong political buy-in at all levels. Results from the project show the project was highly regarded by local authorities. However, as the case of the resettlement of flood-affected households shows, the project may have been a victim of its own success. Higher-level political forces ultimately interfered with decisions that belonged to the community-based disaster management committee.

5.4.3 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

This is a DRR project at its core, and activities focused on improving community-level DRR and better linking the government-led humanitarian coordination system. DRR activities enhanced both absorptive and transformative capacities. The indicators that had the biggest effect sizes between comparison and project communities were 'awareness of a community DRM plan', 'access to early warning system' and 'confidence in local leadership and government support in times of crisis'. These classic DRR activities underpinned the success of the project.

The project also built on previous experience of a WASH project in the intervention community. The infrastructure associated with the project and the knowledge built was still present, and

technologies such as rainwater harvesting were being used for livelihood promotion. Some elements of this could be incorporated directly into the DRR programme; for example, in 2009 Oxfam supported the development of a WASH contingency plan for Dadeldhura district, which was revised as a disaster preparedness plan incorporating other hazards. The WASH and DRR project elements were then further complemented by a 'gender justice' component through the establishment of WECs. These three elements formed the basis for the project's success, which was described by staff as a model project in the post-project follow-up. Local-level institutions initially supported through these building blocks have continued operating after the close of the project.

5.4.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

Social change process – accountable governing: Nearly 80% of project households reported confidence in local government support mechanisms in the event of a disaster, compared with 2% of comparison households. These high levels of confidence show local governments were more responsive and participation activities led to increased accountability in times of crisis.

The project aimed to establish stronger links between local, district and national response structures to deal with crises, which was also key to improving accountability. The project closure report ascribes the success of this to collaboration with local development agencies, explaining that this enhanced mutual fund allocation and ultimately led to the development of a 'culture of ownership' and 'helped to maintain and manage the structural and non-structural risk reduction works carried out, replenish the contingency and response items, and updates the response, preparedness and community action plans. The collaboration with development agencies enhanced the accountability and ownership'.

Social change process – empowering: The project's core focus on participation in decision-making forums for better disaster preparedness enhanced empowerment, with 25% of project households involved in local or district committees. These committees aimed to be the mouthpiece of the communities but also the driver for addressing DRR concerns at higher levels of governance. They ultimately established good linkages with district-level authorities and created political platforms for women, lower castes and other vulnerable groups.

Another key project activity that contributed to empowerment was running WECs. These were used as a method of ensuring women would be able to identify and participate in community-level issues and as a platform for advocacy. These WECs ultimately ensured a high level of inclusion of women in community disaster management committees, hitting the 40% participation target that was initially mentioned in project inception documents.

Social change process – informing: The project's core logic included increasing awareness of disaster events in order to prepare for them. The project tracked access to early warning information, receipt of disaster preparedness information and whether households were aware of local disaster preparedness plans. The project performs well across all of these indicators.

Social change process – planning and managing: In this case, the process of 'planning and managing' is intimately tied to the 'empowerment' component of this project. A total of 23% of project households were actively involved in the disaster planning process, either at village or district level. According to the Effectiveness Review, the project was held in high regard by local government officials and helped support more effective links between community-based disaster management and district-level plans.

Women and disadvantaged groups' inclusion in the process of planning and managing was primarily through their participation in community disaster management committees. The project outline specified that 40% of members must be from disadvantaged groups. This owed in part to the participation of the WECs, which helped ensure sufficient participation of women during the inception phase of the committees.

Multi-stakeholder collaborations: Previous engagement in the project area on WASH initiatives had resulted in good relations with local authorities and organisations, supporting productive collaboration. As seen in the section on ‘accountable governing’, the project’s emphasis on creating stronger links between government authorities and communities was accomplished with the support of local development agencies. These organisations collaborated in mutual fund allocation and cultivated a ‘culture of ownership’, in which they all felt responsible for meeting the project’s objectives. This in turn resulted in strong collaboration with government authorities, which ultimately integrated the project’s DRR objectives into annual development plans. A key part of this project’s success was in the good relations between Oxfam, project partners, communities and government officials. How these relations have changed since higher-level authorities have been involved in relocating vulnerable households is not clear, but the site remains a model for Oxfam Nepal and project activities have continued beyond the lifetime of the initial project.

5.5 Vanuatu: NGO Climate Change Adaptation Programme: “Yumi stap redi long Klaemet Jenis”⁹

The Vanuatu NGO Climate Change Adaptation Programme, known locally as *Yumi stap redi long Klaemet Jenis*, was implemented in 2012 by a large consortium of partners including Oxfam, CARE International, Save the Children, the Vanuatu Red Cross Society (in partnership with the French Red Cross), the Vanuatu Rural Development Training Centre Association (VRDTCA) and the Secretariat for the Pacific Community-Deutsche Gesellschaft für Internationale Zusammenarbeit (SPC-GIZ). The overall goal of the programme, and one of the three objectives, was to ‘increase the resilience of women, men and young people in Vanuatu to the unavoidable impacts of climate change’. The remaining two objectives aimed to enhance ‘capacity, collaboration and information sharing amongst the NGO sector and with the Government’ as well as develop and implement ‘policy and practice that better support women, men and young people in Vanuatu adapt to climate change’ (Sterrett, 2015: 14). Through participatory vulnerability and capacity assessments, community members helped choose and prioritise interventions, which ultimately led to ‘improvements in food and nutrition, water security, capacity building and empowerment, community cohesion and disaster preparedness’ (ibid.: 58).

Partner agencies within the consortium are also active members of the Vanuatu Climate Adaptation Network (VCAN), which was established at the same time as the programme and includes other civil society organisations working in Vanuatu. The programme has developed a shared approach to resilience through its Resilience Framework, which was developed to guide programme activity, monitoring, evaluation and learning in the Vanuatu context. The Resilience Framework has also been used outside of the programme including by the wider VCAN and the Vanuatu government; it has also informed Oxfam’s wider theory of change.

Overall, the programme reached 5,064 women, men and young people, within 39 communities across 12 islands in the provinces of Torba, Tarea, Shefa and Penama in Vanuatu. The programme maintained a good gender balance: it worked with 57% male participants and 43% female participants, and 51% of participants were either youth or children (Sterrett, 2015: 21). The programme also included a small sample of people with disabilities. It targeted remote areas in order to try and reach the most vulnerable populations. Unfortunately, baseline surveys were inconsistent, so comparing outcomes across the programme has been difficult.

5.5.1 To what extent is there evidence that Oxfam’s interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

Although most of the interventions contribute to building adaptive and in some cases transformative capacities, the programme has also resulted in positive change across a number

of characteristics of absorptive capacity at the household and community level, including through livelihood and crop diversification, food and nutrition, water security, the use of traditional knowledge and social networks. Data from key informant interviews show that over 80% of respondents felt they could meet their basic needs, which is important as it supports general well-being and people's ability to cope with, and recover more quickly from, shocks and stresses, demonstrative of absorptive capacity.

Diversifying livelihoods and crop diversification: The programme supported the diversification of livelihoods and promoted crop diversification through improved access to tools, varieties of seeds and crops and through training. These strategies are important for promoting absorptive capacity as they enable people to rely on different sources of income in case of a shock/stress and contribute to year-round food security. Community members report that new strategies have allowed them to plant more disaster-resilient crops, diversify the crops they use, generate income from the sale of vegetables, chickens and weaving items and to preserve and store food. These new strategies have helped enhance food security and nutritional benefits, thereby contributing to their well-being and ability to prepare for and respond to a shock or stress. The Evaluation Report states that more women (90%) than men (73%) felt they had resilient livelihoods. Women also stated the programme interventions (in particular improved access to water) increased their time for other tasks such as gardening, cleaning, washing and talking to other women; however, an interview with Oxfam programme staff highlighted that the programme may actually have increased women's burden and workload. Livelihood diversification has also led to more flexibility, which has contributed to their adaptive capacity.

Water accessibility and safety: The programme has supported communities to improve water accessibility and safety, which has helped improve general well-being as households have better access to clean drinking water and more water available for vegetables and crops. Access to clean water is also helping people prepare for shocks and stresses. For instance, in Motalava, rainwater harvesting systems have been put in place near schools to ensure safe drinking water is available during the dry season and in the case of a cyclone, thereby demonstrating absorptive capacity through improved well-being and disaster preparedness. Unfortunately, no data were available to quantify the impact of these initiatives.

Social networks: Communities feel they have 'social networks which extend beyond the immediate community', with 73% of women and 94% of men feeling they have resilient social networks they can rely on; unfortunately, no data were available to compare the differences between households participating in the programme and those not. The programme has helped enhance the feeling of community cohesion and social capital, as community members have come together 'to design and implement the project, in spite of difference between families (for example, land conflicts). This includes women working with women, youth working with youth, but also women working more with men' (Sterrett, 2015: 44).

Adaptive

A key objective of the programme is to support women, men and young people to understand, plan and adapt to the impacts of climate change. This objective speaks directly to enhancing adaptive capacity, which is defined as the capacity to make intentional adjustments and incremental changes in anticipation of or in response to change, in ways that create more flexibility in the future. The Evaluation Report highlights that, while the programme has built adaptive capacity at the institutional level, most of the interventions and thus impacts have occurred at the individual, household and community level.

Access to climate information: Access to information on, and knowledge of, weather, climate variability, climate change and CCA are key aspects of adaptive capacity, as they can help support adaptive decision-making. The programme undertook various initiatives to improve the initially poor access to climate information, including through awareness-raising, training, education activities and workshops. As a result, the community members now have 'more knowledge of climate change and its potential impacts': 100% of community members

interviewed as part of the evaluation were able to identify at least one aspect of climate change (cause, effect, impact); of these, 95% of women and men stated that their understanding had increased (Sterrett, 2015: 22). Nevertheless, gender differences exist: '25% of women compared to 6% of men felt that they were unable to access relevant information about climate change' (ibid.:40), commenting on their inability to read community notice boards, access a radio, mobile phone or television for weather forecast information and attend council meetings or trainings owing to other commitments. The Evaluation Report does not highlight if access to climate information initiatives account for the differentiated needs and abilities of men, women, children and people with disabilities to engage with these initiatives.

Programme interventions have also tried to link traditional knowledge and climate science information to support the creation of joint knowledge (which is contextually and culturally sensitive) that can inform community decision-making. Oxfam Programme staff highlighted how VRDTCA's 'kustom days' allowed 'knowledge holders including traditional weathermen and chiefs to share traditional knowledge with the broader community including women and girls' thereby demonstrating increased access to climate information as well as characteristics of transformative change. Oxfam Programme staff highlighted another strategy by CARE which used 'community notice boards as a way of sharing traditional agriculture calendars, seasonal forecasts, disaster alerts and project information'; although there were challenges in how inclusive this approach was in terms of illiteracy, particularly for women. Oxfam programme staff also highlighted that traditional meeting spaces (*nakamals*) are mostly off limits to women, however this is where a lot of knowledge transfer and decision-making takes place; it is unclear to what extent the programme has been able to challenge these specific dynamics.

Community action on CCA: The Evaluation Report states that there has been medium to high rate of success in terms of strengthening 'the capacities of women, men and young people to plan and take action on climate change information' (Sterrett, 2015: 51), although an interview with Oxfam programme staff highlighted this rating may be subjective. Community action on CCA includes preparing for and mitigating the impacts of different shocks/stresses at home and in their livelihoods, knowing what to plant and when, how to store and preserve food and helping 'educate others and spread information about climate change' (ibid.: 23), which demonstrates another characteristic of adaptive capacity. As a result of the programme, community members are adapting to climate change in multiple ways across WASH, NRM, agriculture, DRR and other sectors. For instance, new agricultural techniques have been initiated which include establishing a community garden to trial diverse and drought-resistant vegetables; composting and mulching, which improves soil quality and reduces water use; establishing bee hives, which have helped pollinate fruit trees and increase food production and so on; however, the scale and uptake of these types of adaptation strategies have varied depending on the location (ibid.: 21).

Coastal protection and NRM: NRM and DRR initiatives are being undertaken to build social-ecological resilience and to help people reduce the impact of climate variability and extremes through preparedness and planning. Initiatives have included planting trees and grasses along the coastline and exposed areas to reduce erosion and to prevent water logging, 'reviving traditional methods of conservation' and 'conducting waste management and rainwater collection to reduce storm runoff, which often floods homes during the rainy season' (Sterrett, 2015: 24). However, the Evaluation Report recognises it is too soon to assess the long-term impact of these initiatives.

Improved knowledge and capacity of partners: The programme has been successful at enhancing the knowledge and capacity of individual agencies that are part of the consortium, other NGOs that are a part of VCAN and working in Vanuatu and the government. This reflects one of the programme change outcomes, which has been achieved through coordination and collaboration with other stakeholders and has led to enhanced effectiveness in terms of CCA programming and implementation at the community level. Factors that have increased capacity include specific training and skills development that enhance knowledge about climate change and other related issues, including gender and social inclusion, NRM, CCA and communicating

climate change, as well as a range of site visits to learn from the success and challenges of other projects (Sterrett, 2015: 30). The Resilience Framework and associated tools have also helped develop capacity at all levels, as it has been adapted to the Vanuatu context and has been used by consortium partners, the VCAN and the government to inform their understanding of resilience.

Transformative

There is early evidence of transformative capacity *vis-à-vis* change in policy processes, through the consortium partners and the VCAN convened by Oxfam. The programme also resulted in positive changes across a number of characteristics of transformative capacity at the household and community level, which include greater women and youth participation in decision-making processes and activities. There has been limited progress in terms of the involvement of people with disabilities.

Influence on government policy and planning: There is early evidence of transformative capacity as a direct result of increased collaboration between the consortium partners, the VCAN and the government, which has enhanced individual agencies' influence on government policies and planning processes. This has been achieved 'through emphasising the importance of gender and equity as foundation blocks of sustainable development, and the effectiveness of focusing on capabilities rather than technological fixes for development issues' (Sterrett, 2015: 31). Consortium partners and the VCAN have together influenced the content of two national policy development processes on CCA practices; these have helped promote transformative change through their focus on community-based adaptation and language around equity. One of these, the National Climate Change Adaptation and Disaster Risk Reduction Policy and Action Plan, was launched following Cyclone Pam, with the prime minister at the time providing the VCAN with an award that acknowledged civil society inputs.

Through the programme there has been evidence of enhanced transformative capacity at all levels (from the local to the international); in fact, Oxfam programme staff noted that the extent of multi-level influence had exceeded their expectations. At the local level, the programme has helped promote 'rights-based and asset-based approaches so that consortium partners are better able to work in a participatory way with communities' (Sterrett, 2015: 31). For instance, CARE has developed a gender action plan and has involved communities in collectively considering 'project successes, impacts, challenges and future priorities', demonstrating an inclusive approach to the programme design and delivery (ibid.: 38). The programme has also promoted 'a more consultative and inclusive approach taken by government in developing CCA policy and practice' (ibid.: 28), helped raise government awareness about the work of civil society on climate change issues and demonstrated impact at different levels, including international influence, by helping improve Vanuatu's contribution to the Warsaw Conference of Parties (COP19).

Participation in activities and decision-making processes: As Section 3 showed, participation in decision-making processes is necessary for empowerment and challenging the *status quo*. In addition, transformation involves engagement of power at the local level, which entails changing individual values, capabilities and choices. The Evaluation Report states that the programme has helped strengthen decision-making/governance structures that enhance 'community involvement and increase community ownership' (Sterrett, 2015: 8). The programme has also increased the participation of different groups (women, youth and people with disabilities) through 'vulnerability and capacity assessments, awareness raising, community activities and decision-making' (ibid.: 49). Women in particular noted that the programme had increased their involvement in decision-making processes at the household and community level and stressed 'their views are taken into account more than prior to the project' (ibid.: 44). Men have also been seen to recognise 'the knowledge and skills of women in [CCA] by listening to their ideas and acting upon them' (ibid.: 13), which demonstrates an increase in transformative capacity. Nevertheless, gender differences still exist: '20% of women compared to 7% of men feel that they are not part of fair and inclusive leadership and decision making

process'; while 53% of men compared to 36% of women feel that they do not have connected and responsive national government' (ibid.: 40). The Evaluation Report notes further work is needed to support collaboration between members at the local level and the government on climate change issues, particularly to ensure outcomes are sustained.

The programme also saw a change in transformational capacity through youth reporting that they are more 'interested in being involved in climate change activities, more confident to speak up within the community, and better able to contribute to decision making processes' (Sterrett, 2015: 50). Conversely, the Evaluation Report highlights that, despite the explicit inclusion of people with disabilities in the programme, they 'remain disadvantaged in their communities' (ibid.: 48). Oxfam programme staff highlighted, however, that there is still likely to have been greater success supporting people with disabilities to prepare for shocks and stresses than if the programme had not existed.

5.5.2 To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

Vanuatu's location means it is subject to a wide range of geological (earthquakes, tsunamis, volcanoes and landslides) and hydro-meteorological (cyclones, floods and droughts) hazards, as well as being impacted by El Niño and La Niña events. While this programme is focused on climate change, it is aiming to build people's resilience to all types of shocks and stresses. Climate variability and climate change are already having great impacts at the local level, particularly given that 80% of the population rely on subsistence farming. In addition, 'structural factors such as institutional weaknesses, geographical remoteness, the absence of basic infrastructure such as access to safe water, gender inequalities, a lack of knowledge of the risks, and poor access to information, education and health services' compound people's vulnerability to these hazards and risk (Sterrett, 2015: 14). Vanuatu experienced severe loss and damage as a result of Cyclone Pam in 2013, and has also been affected by El Niño more recently. Oxfam programme staff reflected that the Vanuatu government had been in a state of emergency ever since Cyclone Pam, and NGOs are still trying to deal with this 'double disaster'. The programme has not yet been able to analyse in detail how communities have fared since the interventions and in the aftermath of these events. Moreover, according to Oxfam programme staff, the government of Vanuatu has faced challenges in recent times in terms of corruption, with 14 politicians sentenced to jail in 2015, including the minister of climate change; there has consequently been a lot of change in the policy environment in Vanuatu.

5.5.3 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

The programme has built on existing projects and building blocks that assist community members in adapting to climate change and help strengthen the efficiency and sustainability of interventions.

CCA: The programme aims to increase the ability of communities to adapt to the impacts of climate change; this includes people having increased knowledge about, and capacity to adapt to, climate change, as well as providing community members with opportunities to articulate their priorities to governments and other service providers (see sections on 'adaptive capacity' and 'transformative capacity' for more detail). The Evaluation Report highlights that building on existing projects and working to integrate CCA into existing work has helped avoid the 'siloining' of climate change as a separate sector. Findings from the evaluation indicate that CCA practice has 'increased in all communities' as a result of the programme (Sterrett, 2015: 24), and community members are adapting to climate change in multiple ways, including through WASH, NRM, agriculture, livelihoods and DRR interventions (see the 'adaptive capacity' section for more detail).

Livelihoods: The programme has initiated interventions that have demonstrated improved diversification of livelihoods and improved access to tools, varieties of seeds and crops and training. Consortium partner programme areas of focus include the Vanuatu Red Cross's focus on food production and protection; CARE's programming on community gardening, targeted training of food and nutrition and women's empowerment; and VRDTCA's work that includes community tree planting. These interventions have resulted in an increased number of ways to generate income, and more time available to undertake other activities.

Access to markets: Oxfam programme staff highlighted that as Vanuatu is a small island developing state, most of the economic opportunities are through local markets and local exchange, and there is not a lot of trade. Nevertheless, while there appear to be additional economic opportunities available as a result of the programme, the Evaluation Report does not specify how the programme supported communities or individuals in selling their goods or accessing market information. Oxfam programme staff highlighted these areas were not part of the programme design, and success in this area would have been unrealistic in the time available given the distance between the intervention areas from the capital city, Port Vila, and other markets.

WASH: WASH interventions are being undertaken through consortium partners programming, for instance by the Vanuatu Red Cross and the VRDTCA. The programme has supported better access to clean drinking water and more water available for vegetables and crops in communities. This has helped improve general well-being and has enabled people to better prepare for shocks or stresses.

5.5.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

Social change process – accountable governance: The programme has increased consultation and coordination between communities, partners, NGOs and the government on CCA initiatives, policies and strategies. This has led to more inclusive-decision making that better reflects community priorities, and programme partners who previously worked in silos to conduct 'peer monitoring' to check each other's progress, both of which demonstrate accountable governance.

Social change process – empowering: As can be seen from the transformative capacity section, women, men, youth and people with disabilities have all participated in the programme. This has broadly led to improvements in 'capacity building and empowerment, community cohesion and disaster preparedness' (Sterrett, 2015: 58), as well as in terms of involvement in decision-making, community activities and governance structures. Nevertheless, participation varies between groups in terms of equality, with the Evaluation Report stating that, as a result of the programme's focus on women, 'gender realities are gradually changing, becoming more equitable' (ibid.: 60), while limited progress has been made in term of the inclusion of people with disabilities. There has also been empowerment at the consortium level, as partners have gained the confidence, skills and networks needed to work on the project and to implement CCA activities and interventions.

The programme took a gender-sensitive approach to risk and has engaged in gender and other social dynamics that exist within Vanuatu, in a 'traditionally male dominated and largely patriarchal society' (Sterrett, 2015: 13). The programme has helped improve women's access in decision-making processes within private and public domains and also challenge gendered roles and responsibilities through interventions that have targeted, for instance, access to water and livelihood activities. In terms of targeting specific groups, Oxfam programme staff highlighted that youth are one of the focus areas of the programme, because Vanuatu is a very young country. Child and youth participation has increased in decision-making processes and programme activities, and, through the programme, youth have been brought together from different islands, which has started a climate youth movement in Vanuatu. The programme has also aimed to enhance the inclusion of people with disabilities within these processes, although

the Oxfam programme staff highlighted that these interventions have probably not been as coordinated as they could have been.

Social change process – informing and learning: The Evaluation Report states that there has been a high rate of success in terms of increasing understanding of climate change and its potential impacts for all groups. Nevertheless, findings from the evaluation show ‘men have been able to access climate change information more than women’ (Sterrett, 2015: 21), and there are still power structures that prevent women from accessing traditional knowledge – two areas that still need targeting. Progress appears to have been made in terms of linking stakeholders together, with community priorities being included in policy and practice. Building on existing projects and tools has also helped reduce duplication and enhance CCA efforts across Vanuatu, as have efforts to link traditional knowledge with climate science. Members of the consortium are also reported to have enhanced their knowledge and capacity for CCA programming. The use of the Resilience Framework in and outside of the programme (including by the VCAN members and government) has helped ‘establish a common language for CCA practice and a definition of impact’ (ibid.: 34), thereby demonstrating enhanced learning. Learning is also demonstrated as the programme is ‘contributing to the overall development of a national approach to CCA’ (ibid.: 34). It is also evident at the community level through new courses, training and a new CCA educational curriculum that links schools to government policy-makers.

Social change process – securing and enhancing livelihoods: As previously discussed, the programme has initiated interventions that have demonstrated improved diversification of livelihoods and access to tools, and varieties of seeds and crops. Roles and responsibilities have been challenged through the programme and there have been additional opportunities for income generation, although the provision of information on access to markets appears to be limited. As a result of the programme, all target groups are adapting to climate change through food and nutrition security, and have enhanced water accessibility and safety, which has improved general well-being and helped people prepare for shocks and stresses.

Multi-stakeholder collaborations: Building on previous projects, linking traditional knowledge with climate science, using a community-based approach, coordinating technical support and networking among civil society organisations have all helped promote multi-stakeholder collaboration and capacity-building. The programme also involves a consortium of diverse partners, who are also active members of the VCAN. These partnerships have helped reduce duplication and build the capacity of these partners and the outreach of the programme. Attesting to the strength of these relationships, there are proposals to join the VCAN with another group, the Vanuatu Humanitarian Team, to create a Vanuatu Resilience Network to support future CCA and DRR efforts.

The programme has also helped enhance community cohesion and social capital, as community members have come together ‘to design and implement the project, in spite of difference between families (for example, land conflicts). This includes women working with women, youth working with youth, but also women working more with men’ (Sterrett, 2015: 44). There has also been greater collaboration across scales and sectors from the local to the government level. Nevertheless, despite these successes, the Evaluation Report notes more work needs to be done to help communities, NGOs and governments work together ‘to ensure that plans are turned into concrete actions that benefits all communities, in particular those most at-risk from climate change impacts’ (ibid.: 8).

5.6 Timor-Leste: Improving Land and Water Management to Reduce Impacts of Climate Change on Communities¹⁰

The Improving Land and Water Management to Reduce Impacts of Climate Change on Communities programme ran from July 2012 to December 2014 and built on a previous CCA programme, which ran from June 2010 to March 2012. Phase 1 focused on awareness-raising and involved a large participatory analysis of climate change impacts and the development of CAPs. Phase 2 aimed to 'review and improve the implementation of the CAPs' to promote food security and CCA strategies that support more diverse and sustainable agricultural practices, NRM, 'more inclusive planning and management systems, improved linkages to district-level support and sharing of program lessons' (van Duijn, 2015: 9). The consortium was made up of Oxfam, Caritas Australia and Catholic Relief Services (international NGOs, INGOs), which supported 15 local partners (local NGOs, LNGOs) working with 132 community groups from four districts (Covalima, Bacau, Viqueque and Oecusse) in Timor-Leste. Only a few of the interventions are new as a result of the second phase of the programme – these include improved food and seed storage, keyhole gardens and infiltration wells. The Impact Study reviewed the work of seven local partners, working in nine villages across the four districts mentioned above.

5.6.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

While the programme is oriented towards increasing adaptive capacity, a number of the factors identified over the course of the study were absorptive in nature, as demonstrated below. As a result of the programme, the income of households has increased all year around, owing to alternative livelihood strategies and the fact that households are no longer reliant on seasonal crops.

Food security: One of the key objectives of the programme is to promote food security (in the context of climate change). Enhanced food security was gauged using specific indicators that considered the availability of food to eat and sell (absorptive capacity). Results demonstrated that food security had improved, and the proportion of households experiencing hungry months went down from 97.1% to 67.7% after the programme (based on recall). Before the programme, communities 'relied on wild foods and sold livestock in order to buy their basic food necessities' (Oxfam Australia, 2014: 15). Nevertheless, the programme resulted in improvements to all of the indicators for food security and as a result fewer coping strategies were needed. The Impact Study showed that 18.1% of respondents foraged for wild foods compared with 90.2% before the programme; 55.1% of respondents had to sell their livestock compared with 93.1% before the programme; and 59.6% had to limit the number of meals they had compared with 87.1% before the programme. The Evaluation Report highlights that, at the household level in all of the communities, increased food availability had the greatest impact on children, then women and finally men.

Post-harvesting process/food processing: Post-harvesting and food processing can help protect the quality and quantity of agricultural goods available to eat and sell, and may also help improve the nutrients available to a household, demonstrating absorptive capacity. All of the INGOs conducted training in this area, reaching 60.4% of beneficiaries; of those 61.5% undertook this activity on their own farms. As of December 2014, there were 14 food processing groups with 144 members, more than 90% women; in addition, 48.4% of the total respondents reported that men were involved in food processing after the training, demonstrating a shift in roles and responsibilities. This strategy had the lowest impact in terms of food to buy and sell:

households reported having 61.4% more food to eat as a result of post-harvesting process/food processing, and 61.2% more food to sell.

Crop diversification: Most farmers in Timor-Leste are semi-subsistence smallholders who rely on growing rice, corn and some tubers. Crop diversification can help people secure an income throughout the year by using crops that have different seasonal profiles, which can help improve flexibility in case of a shock or stress. All of the LNGOs supported the uptake of crop diversification through a variety of vegetables and tree crops, 81.6% of beneficiaries participated in training on crop diversification and, of those, 87.8% implemented this strategy. As a result of this intervention, 81.5% of respondents stated they had more food to sell; nevertheless, the 'implementation of this activity was limited due to lack of water' (Oxfam Australia, 2014: 15).

Food storage and seed banks: Storing food and seeds helps improve absorptive capacity as these contingency resources can be used to help households cope with shocks or stresses. All of the LNGOs conducted training in this area: 55.9% of respondents participated in training on food storage, and of these '91% were implementing on their own farm'; of those, 100% said this intervention had increased the availability of food to eat and '76% said it had increased food to sell' (Oxfam Australia, 2014: 33). In terms of seed banks, a total of 51% of respondents undertook training; of these, 48.9% reported using seed banks (ibid.); of these, 100% of respondents said the intervention had increased food to eat and '73% said that it had increased food to sell' (ibid.). As a result of these interventions, participating households were able to use their reserves and no longer had to go to market each time they needed food (van Duijn, 2015: 28), thereby saving time for other activities.

Savings, credit and loan groups: Savings, credit and loans are important contingency resources that can be used to cope with shocks and stresses. A total of 64% of respondents participated in training on savings and credit groups. Of these participants, '93% confirmed that they would continue to stay involved in the group', and of those, 91% said that as a result of being a member of a savings and credit group, they had more food to eat; '86% said that it had increased their income' (Oxfam Australia, 2014: 40). The most common reason to borrow money from savings and credit groups was to cover school expenses, 'home building and renovations, basic needs', purchasing seeds and in times of emergency to prevent the sale of assets (ibid.). While some members have reinvested their earnings, interest rates range from 2% to 20% per month, which could result in further debt or poverty (Barrett and Constan, 2013). Both women and men were able to access loans from savings and credit groups, but 'decision making on what loan to get, and planning on how to pay it back is done by husband and wife together' (van Duijn, 2015: 22).

DRR and flood management: DRR initiatives can help people persist during shocks and stresses, demonstrative of absorptive capacity. Five of the LNGOs undertook flood management training and activities that included 40.6% of respondents; all of those trained said they found it useful. This intervention benefited men the most as they are responsible for the land; however, the project documentation was not clear about what this training or interventions entailed.

Adaptive

The majority of the interventions are targeted at improving agricultural productivity, including new farming practices. Improving production practices based on training, inputs or climate information can help participating households bring in more income and improve efficiency, thereby improving well-being and flexibility to deal with shocks and stresses, demonstrative of adaptive capacity. As a result of these interventions, all of the respondents working with the LNGOs reported there was an impact on their food security, which is interpreted as food available to eat and to sell (Oxfam Australia, 2014: 24–25). In addition, the Evaluation Report highlighted that these interventions helped create extra time that was used for additional

livelihood activities like gardening and farming, both of which are productive activities that could help increase revenue generation, contributing to adaptive capacity.

Composting, terracing, fencing and irrigation: A number of interventions aimed to reduce the exposure of crops and vegetables to hazards and changing conditions and help farmers manage natural resources and build socio-ecological resilience, thereby promoting adaptive capacity. These include **composting** and **terracing**, interventions that help improve soil fertility and therefore productivity for growing crops, as well as helping prevent erosion, landslides and further environmental degradation, demonstrative of adaptive capacity (Oxfam Australia, 2014: 47); **fencing**, which helps protect the crops from being eaten or trampled on by animals, thereby helping people protect their livelihood and source of income; and **improvements in water supply**, through watershed management and irrigation, which can help secure the water flow for crops and agriculture all year around, thereby contributing to food and income security and ensuring crops are more viable and productive in changing climatic conditions. All of these interventions reveal changes that can help improve efficiency and flexibility to deal with changing conditions and uncertainty, demonstrative of adaptive capacity. The results are outlined below:

- All the NGOs provided training on composting to increase soil fertility: 93.2% of respondents were trained, and of those 80.2% used this strategy on their farms; of those, 86.7% said they had more food available to eat, and 82.4% said they had more food available to sell.
- Six of the LNGOs provided training on terracing: 61% of respondents received this training; of those, 98% were implementing it on their own farms; of those '96% said they would continue to do so, 91% said it had increased their income and 95% said it had increased their food to eat' (Oxfam Australia, 2014: 47).
- All of the LNGOs provided training on fencing. 75.2% of participants were trained; of these 95% used this strategy on their farms and 'all of them said they would continue to do'; 93% said implementing the activity had increased their income and 91% said it had increased their food to eat' (Ibid.: 49).
- Five out of seven LNGOs provided training on micro watershed management to a total of 49% of the respondents, but only half of those said they were implementing it on their own farms. Participating households were also provided with training related to water availability, and 89.4% of respondents said this was useful. As of December 2014, over 30 infiltration wells had been constructed, but the impact on water availability was not yet evident.

Permanent plots and the use of keyhole gardens: The use of permanent plots allows people to plant vegetables year round, thereby improving food and income security, characteristic of adaptive capacity. Nevertheless, the evaluations acknowledged that restrictions in access to vegetable seeds and a reliable water source limited the impact of this intervention in some cases. The use of keyhole gardens, however, is designed on raised beds that help 'maximise scarce water and nutrient resources' including through the use of recycled grey water from participants' houses, thereby helping support year-round food and income security (Oxfam Australia, 2014: 29); women are the main drivers of this intervention, as they are able to use the gardens close to the house, therefore reducing the burden on their time. Overall, 83.5% of beneficiaries were trained to use permanent plots and 87.9% of those trained put this into practice; 81% of respondents said that as a result they had more food to eat, and 79.5% said they have more food available to sell. In addition, there were NRM advantages, as 86% of those trained said it had reduced slash and burn agriculture in their area.

Tree planting: Tree planting helps reduce soil erosion, landslides and river shifting and ensure more water is retained, thereby increasing water availability, supportive of adaptive capacity. All the NGOs provided training on tree planting, which was delivered to 72% of respondents; of those '96% said they had planted trees on their own farms and would continue to do so. Of these, 84% said it had increased their food to eat and 82% said it had increased their food to sell' (Oxfam Australia, 2014: 44-45). Nevertheless, the Evaluation Report highlights the

importance of selecting the correct species, and location for reforestation, so interventions are relevant to climate change. In addition, all of the LNGOs have provided training on **nurseries and seedlings** (to 75.5% of respondents) to 'support tree planting, vegetable gardens and crop diversification'; but success has varied due to water availability (Oxfam Australia, 2014: 52).

Understanding climate change: In order to adopt new strategies to engage with climate stresses and shocks, people need to be aware of changing conditions, which can support adaptive decision-making. All the focus group discussion respondents in the Impact Study said they did not know about climate change before the programme, but '96% of respondents said that they were now aware that changes had occurred in their environment'; they also had increased 'knowledge about the impacts this had on their farms and their levels of food security' (Oxfam Australia, 2014: 7). Oxfam programme staff highlighted, however, that this information was related to a more generic analysis of variable weather patterns and seasons to support resilient livelihood systems and practices, whereas access to weather and climate forecast information is sparse. This point was verified in the programme documents, as farmers claim not to have 'received any regular information on weather or climate predictions' and they still rely on traditional knowledge, which is becoming less reliable because of changing climate conditions. While weather stations and summary climate sheets that include information on weather patterns and planting seasons have been produced in some areas, the Evaluation Report highlights that implementing partners found it difficult to explain the scientific information to farmers' (van Duijn, 2015: 16).

Transformative

Two main initiatives have contributed to transformative capacity: the use of CAPs, which has proven to help enhance social cohesion, collaboration at different scales and greater community participation in decision-making processes; and the development of community rules (called TaraBandu), which have contributed to local regulation and fundamental change in NRM practices and enhanced local accountability for environmental sustainability, thereby demonstrating transformative capacity. The programme has also demonstrated some impact on challenging traditional gendered roles and responsibilities.

CAPs: As mentioned above, the use of CAPs has proven to help enhance social cohesion, trust and collaboration between members of the community and other stakeholders, and greater community participation in decision-making processes, thereby demonstrating more equitable power dynamics and characteristics of transformative capacity. CAPs are a participatory process that has enabled communities to self-identify their needs and means of meeting them in a way that is context-specific, thereby facilitating empowerment and an important enabling environment for 'community action, change and processes' (van Duijn, 2015: 8). A total of 80.4% of respondents participated in the formulation of the CAPs, and 81.6% were expecting to participate again in the future, with some communities updating theirs annually. Although it is not clear to what extent the CAPs have been implemented, the process has helped communities participate in decision-making processes. Through this process, communities have received training on proposal writing, which has empowered them to request assistance from sub-district and district-level government, thereby holding them accountable to change. In addition, NGOs have helped link communities and CAPs with the local government, which helps ensure their needs and voices are heard; however, to date resource allocation from the government to support CAPs has been almost non-existent. Oxfam programme staff highlighted that, while the training in proposal writing may not have had the desired success, it is more the overall process of participatory planning and linking the process to local authorities (such as the village council) and local government (such as district agriculture extension workers) that has had the most significant impact.

Local regulation through TaraBandu: As mentioned above, community rules (called TaraBandu) have contributed to local regulation and accountability in terms of NRM. This process has led to fundamental and positive changes that are contributing to the reduction of maladaptive practices at the local level, such as slash and burn and tree felling. It has also

helped promote environmental sustainability, thereby demonstrating transformative capacity. While the success of these regulations has varied, with different sanctions in place for violation in different communities, 38.6% of participants participated in the formulation of TaraBandu, and of these 'all of them reported that they would continue the practice in the future' (Oxfam Australia, 2014: 59).

Human rights and social inclusion: Informants from the evaluation were 'unanimous about the greater equity between men and women' in the programme area, and, while this cannot be attributed to the programme alone, 'orientations on women rights were part of the early stage of community emersion' (van Duijn, 2015: 22). While there are still gendered roles and responsibilities, the project promoted a number of interventions that increased women's inclusion and participation in decision-making processes and leadership, these included 'gender separated consultation meeting and adjusting the timing and location of trainings to women's availability' (ibid.). Nevertheless, while young people took part in the programme through games and contests, and youth and people with disabilities were targeted through the training, there is no evidence that the project established 'greater equity than through the targeting' (ibid.).

5.6.2 To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

The project area experiences a number of hazards, including drought, erosion, shifting rivers, floods and landslides. Moreover, exposure to these hazards appears to have been exacerbated by 'local farming practices such as slash and burn' and deforestation, which have resulted in increased soil erosion and landslides (Oxfam Australia, 2014: 43). While other risks and fragility are not considered in the programme documentation, access to water is one of the greatest challenges in the intervention area, and conflict and disputes over water resources are evident. Recognition of human rights has increased in the programme area, but there is no evidence that this was as a direct result of the programme as opposed to previous NGO interactions.

The Evaluation Report includes some gender analysis, including using a power analysis of intra-household resilience benefits, but the Impact Study focused on the collection of data at the household level and data were not disaggregated by sex, age, disability or ethnicity. Oxfam programme staff advised that the 'overall target was to have 40% women in all activities, which is high by Timorese standards [however] the absence of data usually reflects inadequate monitoring and follow-up systems'; they were also not aware of any specific measures to consult with children or people with disabilities.

5.6.3 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

CCA: This programme builds on the CCA work of the consortium members, and is part of a wider intervention in the area. In addition, the goal and objectives are all related to improving knowledge and capacity to deal with climate-related risks and shocks. Interventions build on communities self-identified priorities through the CAPs and therefore the majority of interventions are linked to resilient livelihoods and NRM (as discussed below). The mid-term review refers to these activities as no-regret interventions, which will have benefits 'regardless of the kind of climate change impact[s]', and will also help 'future proof' food production as 'changes become more severe (van Duijn, 2015: 28). There has also been improved flood management and DRR planning as a result of the programme (see 'absorptive capacity' for more information).

NRM: The project has been building on a number of NRM interventions to try and help reduce the risk of erosion, landslides and river shifting, as well as to help create more sustainable and productive practices. The programme has demonstrated great success in terms of uptake and

positive impact, including through the following interventions: ‘tree planting (72% of respondents were involved), nurseries (75.5%), terracing (61%)...flood management (40.6%) and micro watershed management (49%)’ (Oxfam Australia, 2014: 8); see the capacities section for more information on these interventions. The use of locally developed TaraBandu or community laws has also had a great impact on other NRM practices and the reduction of slash and burn agriculture.

Livelihoods: The majority of programme interventions aimed to improve agricultural productivity through training, the use of new agricultural practices and inputs that helped households improve the productivity, efficiency and sustainability of their farming practices. These interventions contributed to improved food security, which is defined as more food available to eat and sell and greater flexibility to deal with shocks and stresses; see ‘adaptive capacity’ for more information on these interventions. While interventions are contributing to an increase of products to sell, accessing markets is still a challenge, and Oxfam programme staff highlighted that this is particularly true in the ‘target locations that are generally very remote and also suffer from various market distortions related to government programmes, subsidies and other factors’.

5.6.4 On which social change processes and multi-stakeholder collaborations were Oxfam’s interventions based on building resilience capacities?

Social change process – accountable governing: The programme has drawn on communities’ self-identified priorities outlined in the CAPs, and has initiated interventions accordingly, thereby demonstrating accountable governance. However, a number of the interventions were restricted owing to limited access to water, which resulted in crops dying for instance, and lack of capacity by LNGOs to make judgments on the back of this, demonstrating a lack of accountable governance. The use of TaraBandu/community rules is one intervention that has proven successful in terms of regulating NRM, including the sharing and management of water resources; this initiative should be promoted and scaled up for improved accountable governance of natural resources. NGOs were reported to be overambitious during the planning stages, which may result in a lack of trust in terms of managing expectations. In addition, in terms of longevity, the programme ‘has not been able yet to connect the CAPs with other government initiatives’ which has implications on wider outreach, uptake and resource allocation (van Duijn, 2015: 30).

Social change process – empowering: The process of designing and using the CAPs to guide implementation has helped increase community capacity to plan CCA measures and women and men’s access to decision-making processes, which is necessary for empowerment and challenging the *status quo*. Nevertheless, while 46.6% of the ‘group members at the end of the program were women...no data was available on the participation of women in the CAP formulation and decision-making’ (van Duijn, 2015: 15). In addition, while youth and people with disabilities were targeted through the training, the Evaluation Report acknowledged that ‘there is no evidence of establishing greater equity than through the targeting’ (ibid.; 22). For instance, young people took part in the programme through games and contests, but recommendations for greater inclusion and equity included exploring ‘ways of increasing youth participation closer to their interest e.g. building their skills in marketing and business’; recommendations also included continuing leadership training and the promotion of women in leadership roles (ibid.; 8). In terms of capacity-building initiatives, 43.6% of those who participated through the programme were women. While the programme proposal suggested including specific adaptation strategies appropriate to the needs of people with disabilities – that is, through keyhole gardening, which is close to home and easy to access – Oxfam programme staff highlighted that there was a lack of technical expertise in disability programming at the partner level; there was also no information in the programme documentation about whether these interventions were achieved.

Social change process – informing and learning: A high proportion of the households have been trained in adaptation strategies, and 48.9% to 92.3% of the households have adopted

these practices. However, as there have been previous interventions in this area, participants are more likely to take risks and engage in new strategies, and there was no evidence that farmers would be able to adapt on their own without external support. Demonstration sites and exchange visits helped respondents learn about practices they could replicate, and there has subsequently been high uptake of these technologies by participating farmers; the demonstration sites have also benefited indirect beneficiaries (van Duijn, 2015). While there was a high level of uptake and positive impact in terms of capacity-building initiatives, farmers have reported not receiving the information they need to change their planting seasons, and, while weather stations and summary climate sheets have been produced, organisations 'found it difficult to explain the scientific information to farmers' (ibid.: 16). The programme has helped promote wider learning interventions, including advocating for an International Climate Change Conference in Dili, which helped raise general awareness about climate change, its impacts and best practice on adaptation practices. Partners have also advocated for a national climate change centre at the National University of Timor-Leste, which, among other things, will help improve multi-stakeholder engagement and awareness of TaraBandu.

Social change process – planning and managing: The development of the CAP was a participatory process that enabled communities to self-identify their needs and use these to plan activities and mobilise community action. A total of 80.4% of respondents participated in formulating the CAP, a process that enabled them to engage in wider planning and decision-making processes. The formulation of TaraBandu/community rules, something 38.6% participated in, has been a useful planning and local regulation intervention for effective NRM.

Social change process – securing and enhancing livelihoods: As demonstrated in the capacities section, a number of interventions have contributed to increased knowledge and use of new livelihood and sustainable farming practices through the programme. The results of the Impact Study demonstrated that, based on recall, the proportion of households experiencing hungry months went down from 97.1% to 67.7% as a result of the programme; they also had more crops and vegetables to sell, thereby increasing household income. Saving and lending groups have been successful in helping people secure and enhance their livelihoods, and these loans have had a range of benefits, including being used for schools and the trading of animals. Nevertheless, the increased volume of production and access to markets is still a challenge.

Multi-stakeholder collaborations: The programme was gendered-balanced, and reached 12,226 direct beneficiaries (5,930 women and 6,296 men) and 14,497 indirect beneficiaries (7,032 women, and 7,467 men); 87 people with disabilities also participated. The specific activities were informed by the CAPs from Phase 1 and were therefore seen to be relevant to the community and the local context. Nevertheless, because of previous engagement in this area, participation of households fluctuated as people who were expecting to receive food and goods left when they realised they were not going to as part of this programme.

Overall, the programme demonstrates good multi-stakeholder collaboration and involves international NGOs, who are supporting 15 local partners (LNGOs) working with 132 community groups, thereby helping to improve knowledge and build capacity and networks. There are also linkages with the local government and a range of different ministries; for instance, LNGOs worked in partnerships with 'the Ministry of Agriculture... and Forestry and the National Disaster Management Directorate... of the Ministry of Social Solidarity' (Oxfam Australia, 2014: 8). The mid-term review recognised 'the participation of government officials in trainings' demonstrating capacity and relationship building, and the 'contributions of Permatil through technical trainings was highly valued by local partners' (van Duijn, 2015: 32, 7). Working with local partners was 'very effective thanks to their knowledge of local culture, communities and language' (ibid.: 43), which helped promote access to more remote areas and higher participation by beneficiaries in the area, including women. Nevertheless, Oxfam programme staff highlighted that there were a number of limitations in terms of the update of CAPs. These include the fact that 'decentralised development programming is new in Timor-Leste...and most local government entities lack the funds and experience to support requests from communities'. In addition, Oxfam programme staff highlighted that CAPs are multi-sectoral in nature, and consortium and local partners have

encountered a number of challenges in terms of resourcing constraints and lack of technical capacity to be able to implement every aspect of the CAPs.

5.7 Chad resilience projects in Bahr El Gazal region¹¹

In this highly food-insecure and drought-prone region of the Sahel, Oxfam's intervention has aimed to strengthen food security while securing pastoral households' access to water and veterinary services, supporting agricultural production and providing economic opportunities for women. The main activities carried out in the project were the distribution of seeds, training on agricultural techniques, training community animal health workers, restocking sheep and goats for women's livelihood projects, vaccination of livestock and training on market gardening. Although income-generating activities with animals were unsuccessful, the project had strong impacts on raising incomes through market gardening. This did not make people less poor, as communities were highly indebted and faced high fees for use of land by traditional authorities. Even without a large impact on revenue and incomes, the project did have some positive impacts on key components of absorptive and adaptive capacity. Transformative capacity was marginally enhanced, particularly in relation to empowering women, but deeply entrenched socio-cultural norms prevented a larger impact in this sphere.

5.7.1 To what extent is there evidence that Oxfam's interventions contributed to build absorptive, adaptive and transformative capacities?

Absorptive

The Bahr el Gazal region has been consistently plagued by crisis. High food prices and drought have created a situation of chronic and quasi-structural food insecurity for the very poor, who constitute 30% of the population, and income-generating activities are rare. As a result, baseline 'absorptive' capacity in the region is relatively low and the site has been the subject of humanitarian interventions. Oxfam programme staff stressed that most of the donors in Bahr el Gazal were humanitarian, with very little long-term development focus in the area.

From this low baseline, the project demonstrated an improvement on a number of indicators of absorptive capacity, which include 'access, availability and quality of veterinary care', 'access to water for agricultural activities/irrigation', 'access to drinking water' and 'access to a grain bank'. The project laid the infrastructure for better absorptive capacity: building grain banks, rehabilitating wells for livestock and domestic consumption and providing opportunities for protection of livestock through veterinary auxiliaries.

Access to water: The most significant difference across these indicators was in access to water, where households in project communities were 23% more likely to score positively in access to clean drinking water and access to water for market gardening than comparison communities. Access to water is one of the most basic components of absorptive capacity, allowing households to survive, maintain agricultural production and keep livestock alive in the event of a shock or stress.

The final project evaluation added that the project had significantly improved access to water for livestock by rehabilitating six pastoral wells in six villages, reducing time spent in search of water sources. Reducing travel distances and time are key in a context where water is one of the main drivers of mobility for pastoralists. This indirectly reduces loss of livestock, contributing to the protection of the pastoral system as a whole. For women, who spent a significant amount of time fetching water for domestic use, this freed them up to concentrate on productive activities.

Veterinary care: Livestock represent an important 'cash reserve' for pastoralist and agro-pastoralist households in Chad. For rural households, owning livestock is similar to

accumulating savings. Livestock can serve as a fall back in the event of a crisis, providing the family with cash, milk or meat. Unlike actual cash, however, livestock can fall ill, and veterinary services are essential to ensuring they persist during times of stress. For livestock-dependent livelihoods, increasing access to veterinary services is key to enhancing absorptive capacity. Although access to veterinary care improved over the course of this project, with 63% of intervention households reporting access to veterinary care as opposed to 53% of comparison households, the project had mixed success in protecting animals from the harsh conditions of the Sahel. Surprisingly, the project's final evaluation showed beneficiary households actually lost more animals than comparison households. Take the case of poultry – beneficiaries lost nine chickens on average compared with four in comparison households between 2014 and 2015. Survey respondents cited sickness (89%) and the heat (23%) as primary causes of these deaths. The evaluation report suggests a few possible explanations for this phenomenon. First, the households included in the project were specifically chosen for their high vulnerability, and were thus less able to protect their assets and livelihoods than beneficiaries. Second, in a pastoral context, access to veterinary services is intermittent, and it takes time for impacts such as improved access to veterinary care to take root and translate into better animal health. There was some clear evidence that livestock was becoming better protected among project households, with 51% of beneficiaries reporting having all or some heads of livestock vaccinated vs. 40% in the comparison area.

Food security: According to the Effectiveness Review, the project has some impact in reducing severe food insecurity. Dietary diversity, which allows a household to substitute food items should the supply be interrupted by a stress, did not improve, but households were better able to purchase grains. This was partly because of a slight fall in market prices, but also because of higher purchasing power of the poorest and better access to credit. These allowed for more regular meals, and for some displaced households to move back to their villages, where previously they had relocated close to markets to guarantee their physical access to grains.

Additionally, households in the intervention area had better access to grain banks than in comparison areas. Grain banks allow farmers to store harvest until favourable market conditions, or to consume harvests during the lean season. The Effectiveness Review found there was a 17% difference in access to a grain bank between intervention and comparison areas. The grain banks were located in areas where populations were particularly vulnerable owing to their distance from markets, and the mid-term report found both men and women had equal access to information on participation, market prices of grains, stocks available, etc. The final project report found 72% of beneficiaries were satisfied with the way the grain banks functioned.

Adaptive

The project demonstrated an improvement in a number of indicators of adaptive capacity, including use of improved seeds, adoption of improved agricultural techniques and increasing assets. It also shows some positive impacts of alternative livelihood activities through women's groups, though these were not unilaterally successful.

Asset ownership and incomes: The project introduced and supported women's home gardening groups to increase women's incomes, and the final project evaluation report shows the project was successful in this regard. The project evaluation report explains the women's group was able to invest in new agricultural equipment, as well as to disperse funds to each member of the home gardening group. Women said they used these additional revenues for feeding, clothing and maintaining their households. The evaluation emphasises that these benefits were clear, at least in the short term. However, Oxfam staff qualified these results, explaining households that saw increases in income also faced higher access fees than they had previously. Traditional contributions to authorities and high levels of indebtedness prevented this additional revenue from reducing poverty levels.

Other income-generating activities were less successful; poultry-raising, for example, was selected as an activity that could increase the incomes of women specifically and could be supported through women's groups. However, the costs incurred by women (through weekly contributions to the poultry and sheep fattening groups) were high enough that the mid-term project evaluation found women were actually losing money and chickens were dying, in spite of women's confidence that the project was working. The women groups running the project were restricted to older women, missing a key opportunity to spread knowledge and income to younger women, who may be prepared to be more open to innovation and adaptations. Furthermore, the capital costs of this activity were high, restricting possibility of reaching more women.

Beyond increasing incomes, the Effectiveness Review provides evidence that the project contributed to building the asset base of households in intervention areas. Productive assets provide a broader base of resources on which communities can draw to change their behaviours and adapt to changing circumstances. Households in the intervention area were 15% more likely to own at least one large asset, such as a cart, plough, motor pump, sheller, sewing machine, motorbike or motor vehicle, or at least three small assets, such as bicycles, lamps or torches, irons or mobile phones, in comparison with comparison areas.

Improved agricultural production practices: The project contributed to the adoption of improved agricultural techniques, through training and provision of agricultural inputs. These had clear benefits in enhancing adaptive capacity for project households: 80% of intervention households used staple crops with improved seeds, compared with 66% of project households. About 16% of project households used soil conservation techniques, compared with only 5% of comparison households. Beneficiaries were also more likely to use composting, chemical fertilisers and biological treatment than their counterparts. The Evaluation Report shows the project was successful in increasing the number of staple crops produced. Interviews with Oxfam staff showed this also had significant impacts in increasing household incomes, especially in the case of gardening groups. However, two obstacles prevented increased incomes as a result of agricultural production from translating to poverty reduction: (1) village authorities leveraged high access fees for using land for gardening, directly reducing revenues from production; and (2) households had a very high level of baseline indebtedness and needed to pay back debts and interest accrued rather than using newfound revenue to invest into household well-being.

Awareness of climate change: An understanding of climate change is essential to make informed livelihood choices and ultimately for enhancing adaptive capacity. The project attempted to raise awareness on climate change but was not successful; the Effectiveness Review found little difference in the way communities in project and comparison communities responded to questions testing their understanding of climate change. Oxfam staff explained that pastoralists were foremost concerned with their livestock, perceiving agricultural activities only as a means to buy more livestock. As a result, the pastoralists were less concerned with environmental issues that affected agricultural land, such as erosion, soil quality, climate change and other environmental preservation issues. Raising awareness on the issue is a long-term challenge that requires engaging with the nature of pastoral livelihoods and demonstrating how climate change may affect their livestock.

Transformative

The initiative has contributed to building transformative capacity by shifting the position of women in society and by enhancing the degree of social cohesion.

Empowerment: Transformative capacity engages with power dynamics at the household level. In Chad, men are in control of livestock management, which is by far the most important livelihood asset in pastoral communities. Women, on the other hand, lack economic opportunity. The income generation activities included in the project that aimed to support women's economic empowerment were supporting market gardening and sheep-rearing as a household

business. As a result of these interventions, women reported having some revenue to contribute to household expenditure (though this finding was qualified by Oxfam staff, in that generally only widowed women were truly managing household expenditure). In surveys, women reported spending this additional income on food, clothing and household needs. Although this level of economic empowerment was small, it indicates an improvement in transformative capacity.

Larger structural and cultural forces prevented further transformation, however. Interviews with Oxfam staff revealed that generally only widowed or older women were truly in charge and managing their own household resources. Furthermore, when women's gardening activities were commercially successful, village chiefs and other authorities began leveraging heavy fees. This was not directly linked to gender, but it did demonstrate that women have little power to push back against deeply entrenched hierarchical structures even when they have the direct support of an INGO.

Social cohesion: The project demonstrates an improvement in 'participation in community groups', one indicator of transformative capacity. These are indicative of the degree of social capital and cohesion in the community and are seen as a proxy of empowerment and agency. In the context of the project, community groups included market gardening groups, a farmers group, an association, a *tontine*, a community savings fund, a cooperative or the water committee. The 2013 interim project report confirmed that the immediate effect of the gardening groups on women was to strengthen social cohesion among the poor and very poor, as well as to increase access to quality inputs for market gardening. Overall, households in project communities were 11 percentage points more likely to participate in community groups than households in the comparison communities.

This social cohesion was not extended to all castes, however. Interviews with programme staff revealed that the programme had limited access to the Haddad ethnic group, which is a Sahelian Muslim ethnic group that lives without land or water rights (Olson, 1996). Involving the Haddad people in project interventions required express permission from village leaders, which was only recently granted after Oxfam staff explained they would not be able to continue working in communities where they were barred access from certain groups.

Attitudes toward innovation: The attitudes towards innovation indicator measures how open households are to experimenting with innovative practices that are not directly linked to project activities. This is distinct from adoption of improved agricultural techniques encouraged by the project. The indicator is demonstrative of the potential for local and autonomous innovation to deal with stresses that threaten livelihoods. In the case of Chad, the project did not achieve positive results in 'innovation' indicators such as 'adoption of innovative practices' and 'attitude to change and innovation'. These findings were based on survey questions gauging whether respondents agree that 'To better succeed in the future, people should experiment more with new methods and innovations' and that 'We need to use new methods and innovations to improve our living conditions'. The Effectiveness Review found no difference between attitudes towards innovation between project and comparison households. These attitudes towards innovation are unsurprising in an area where core problems, such as access to basic services and reliable water supply, are not fulfilled. Perhaps this suggests a certain baseline of well-being must be achieved before transformative capacity can be built in earnest, particularly with regard to encouraging autonomous and local innovation.

5.7.2 To what extent were Oxfam's interventions informed by a multidimensional integrated analysis of risks, fragility, vulnerability and capacities?

The project deals primarily with hydro-meteorological risks. The project logframe considers risks of epidemics and large-scale population movements, but these are not explored in any depth. The logframe assumes the security conditions remain stable in the targeted intervention zones, enabling access, programme implementation, supervision and monitoring.

Oxfam conducted an in-depth gender analysis in November 2012 in order to better understand the gender dynamics and issues in the region at the household and community levels, although not all of these factors were built into the design of this project. The analysis found women faced a number of oppressive social and economic conditions. Some of the major challenges are (1) early and forced marriage; (2) lack of access to capital for income-generating activities and no control over resources; and (3) lack of access to education. Women and children suffer more from malnutrition and other ailments related to food shortages since men have priority access to food, even that which is distributed by aid agencies. There is significant disparity between opportunities and services for men and women and for boys and girls (only 41% of women are literate against 53% of men). A gender assessment carried out by Oxfam in the zone showed that, as in the rest of the country, women in the zone suffer from discrimination and violence, both physical and sexual. However, these instances often go unreported because of cultural, social and religious barriers.

The project does not attempt to redress all of these inequalities, focusing primarily on women's economic empowerment and reducing their physical and financial burden. The project activities are designed to increase access to water and reduce usage of firewood, because women and girls are mainly responsible for these time-consuming domestic chores. They reported that having an easy access to functional water sources is one of the most important ways to improve the quality of their life. The project furnished more efficient cooking stoves and improved water sources, and women reported that the time spent collecting firewood was reduced by a quarter to a third. Women also reported that having more free time allowed them to partake in other productive activities.

5.7.3 To what extent did Oxfam's interventions use different building blocks to build absorptive, adaptive and transformative capacity? (CCA, DRR, livelihoods, market development, WASH, etc.)

Livelihoods: The project is centred on the concept of protecting and improving livelihoods, supporting agro-pastoral households to adapt to the harsh conditions of their environment. Every intervention is connected to the 'livelihoods' building block, including access to veterinary services, access to water, access to training and agricultural inputs and the creation of alternative sources of income through livestock-raising and home gardens. The project made an effort to adjust these activities as needed, with some activities phased out when they proved ill adapted to the environment (poultry-raising, e.g., or transforming camel's milk into cheese). The project's flexibility was grounded in an 'evidence-based' approach to ensure activities were best tailored to local livelihoods. On the whole, support to livelihoods resulted in small positive changes in absorptive and adaptive capacity.

Still, even these interventions did not result in significant changes to livelihood viability. Even where incomes increased as a result of the project, beneficiaries had very high pre-existing levels of indebtedness. Landless people were required to pay tributes to village chiefs, regional chiefs and landowners, among other authorities. Although gardening activities were successful in generating revenue for households (with some families doubling incomes from \$500 to \$1,000 a year), they did not reduce poverty. Beneficiaries who were successful were required to repay debts. They were also required to pay tribute fees to village authorities for using land that was not theirs; in one case of a particularly successful women's onion gardening group, women saw their tribute fees increase exponentially as village leaders clocked onto women's financial success. Often, beneficiaries had to pay fees immediately after harvest rather than waiting for more favourable market conditions.

WASH: Though the project is more heavily oriented towards livelihood activities than WASH, one of the project aims was to increase availability and access to water for domestic consumption, agriculture and livestock. This was intended to reduce the burden of women, who were primarily responsible for fetching water, as well as to ensure sufficient access to water even during drought. One of the biggest changes effected by the project was in access to drinking water and water for gardening, which yielded the most significant difference between

beneficiary households and comparison communities across the indicators measured. The construction and rehabilitation of wells was one of the key drivers in improving absorptive capacity.

5.7.4 On which social change processes and multi-stakeholder collaborations were Oxfam's interventions based on building resilience capacities?

Social change process – empowering: By specifically targeting women in income-generating activities, the project looked to empower women economically. Besides activities linked to livestock, which ultimately failed, the project evaluation states gardening activities helped improve women's incomes. This component of the project involved women in trainings, access to improved agricultural inputs and improved access to water to enable women to grow, consume and sell vegetables from their gardens. This process of empowering women was limited to the economic sphere; the project did not engage further with the factors that disempower women in Chad. Oxfam staff stated that socio-cultural constraints are pervasive and strong behavioural change components must accompany interventions to eliminate the discrimination inherent in rural Chad's patriarchal and caste-based society.

Social change process – securing and enhancing livelihoods: The project contributed to 'securing and enhancing livelihoods', with the Effectiveness Review highlighting its positive role in the use of improved seeds and access to quality veterinary care. Although the Effectiveness Review found no difference in ownership of livestock as a result of the project, a key wealth indicator for pastoral and agro-pastoral households, other indicators relevant to agro-pastoral households improved marginally over the course of the project. Project communities reported that the veterinary services were available when needed and were of at least 'medium' quality. Agriculturalists in the project areas were more likely to use improved seeds, with 84% of beneficiaries reporting use of improved seeds compared to 74% of comparison households. According to the project evaluation, all of these interventions helped secure livelihoods in the short term, but the sustainability of this intervention in contributing to a larger process of enhancing livelihoods depends on additional follow-up and support.

Multi-stakeholder collaborations: The project had significant difficulty working in an effective multi-stakeholder collaboration. Oxfam staff explained that finding reliable partners in the region was difficult; levels of corruption are very high, and civil society organisations are often shadow organisations that take money but do very little. Partner organisations that are interested in working effectively often lack capacity, the requisite organisation structures or the necessary levels of education. Furthermore, staff turnover is high enough that investment in capacity-building is challenging. Additionally, technical staff and programme managers did not always communicate well, sometimes as a result of cultural barriers.

This discordance in multi-stakeholder collaborations was partly a result of the donors in Chad, who are almost exclusively humanitarian-focused rather than resilience- or development-oriented. This results in a different approach to programming, and as a consequence the project evaluation explains that not all actors involved in implementing the project had access to the same information on the project, and the project had varying levels of efficient participation in project management. Those working on food security and livelihoods and WASH, and some field staff working on livestock only followed top-down directives, which the project evaluation states resulted in negative overall monitoring of the project activities and impeded the achievement of expected results regarding livestock income-generating activities.

6. CONCLUSION

The analysis of Oxfam's initiatives presented in the preceding sections lends itself to the collation of cross-cutting insights and recommendations on key issues that need to be considered when developing new initiatives to enhance resilience.

6.1 Effectiveness in building resilience

Taken in aggregate, Oxfam's projects have been effective in building resilience capacities, and nearly every project has contributed to enhancing one or more resilience capacity to varying degrees. On the whole, projects show more improvement in building absorptive capacity, but evidence also points to changes in adaptive and transformative capacities. These changes depend on the context of the project, but this analysis did yield a few insights on the nature of resilience across Oxfam's projects.

Interventions that enhance absorptive capacity include 'quick wins', such as the establishment of early warning systems, which can be set up and functional within the timeframes of a project, as was the case in the Pakistan project. They also include more difficult, medium-term interventions, including access to savings and contingency resources. Because the case studies provide evidence of success in both types of interventions, the relatively strong increase in absorptive capacity cannot be attributed to the short timelines of the project. This finding is reinforced by Fuller (2016)'s meta-analysis of Oxfam projects, which shows that project duration had no bearing on the overall resilience score.

The increase in absorptive capacity across projects owes partly to the prevalence of DRR projects, which are specifically designed to increase household's ability to survive hydro-meteorological shocks. However, the DRR projects we sampled, based on the Effectiveness Reviews and Evaluation Reports in our deep dive (Nepal, Pakistan, Nicaragua and Senegal) showed significant increases in adaptive and transformative capacities. Nevertheless, DRR can be an entry point for increasing all three capacities, as observed in the case of Nepal. The project was focused on DRR through the establishment of a flood early warning system and community disaster risk management groups, which were then integrated into village and district decision-making. The project gained buy-in from district-level officials, who integrated CCA and DRR into development planning as a priority. Communities were able to feed into a district-level DRR agenda based on their participatory analysis of their risks, capacities and vulnerabilities conducted at the start of the project. This empowerment process ultimately enhanced both absorptive and transformative capacities.

Drawing conclusions about how DRR and CCA programmes enhanced resilience capacities differently is somewhat arbitrary. Although DRR projects tended to be focused primarily on reducing disaster risks, CCA programmes included elements of DRR interventions. As a result, the line between what constituted a CCA programme and a DRR programme was thin. For example, the CCA projects in Timor-Leste and Vanuatu included many interventions that would enhance absorptive capacity in the event of a climate shock, including crop diversification, establishment of savings and credit groups, flood management training, improved access to grain banks and access to water.

Rather than focusing on one type of programme for resilience capacities, this points to the feasibility and importance of including a multidimensional analysis of risks. Resilience is inherently 'multi-hazard', therefore programmes should focus on incremental long-term stresses as well as large short-term shocks. While some of the projects analysed looked at multiple hazards, many were sharply focused on tackling particular shocks (e.g. drought in the case of the initiative in Chad and flooding in the case of the project in Nepal) and the researchers did

not find adequate evidence that a broader suite of risks had been considered in depth before prioritisation.

In terms of whether successfully building multiple capacities is something that needs to be 'sequenced', evidence from this sample indicates absorptive and adaptive resilience capacities can be built simultaneously. Transformative capacity is slightly trickier; the ingredients for transformational change must be included within the design of the project in order to be most effective. Creating the conditions for people's participation in higher-level decision-making processes and better social inclusion does not happen accidentally. Staff involved in the Oxfam project in Chad even had to threaten to leave the project because they were being barred access from some of the most vulnerable/at risk groups. Bringing excluded groups into decision-making forums is key to promoting empowerment and to tackling the social, political and institutional barriers that transformative capacity aims to challenge. Nevertheless, this is not a fast process, and interventions need to recognise and promote changes that are likely to be sustainable even after the project has ended.

It may also be the case that transformation cannot occur without a certain threshold of well-being, as people are less likely to attempt to engage in innovations or get involved in higher-level politics if they cannot meet their basic needs. An interview with staff in Senegal highlighted this, as communities struggled to maintain food consumption during a drought in Year 1 of the project. The interviewee highlighted that the project was beginning to see changes in absorptive and adaptive capacities, but that transformative change was still a long way off. Although the project was successful in encouraging the participation of women, this had not yet translated into a change in intra-household dynamics that would point to a real shift in power relations between women and men.

Lastly, evidence for improvements in transformative capacity must be treated with a degree of scepticism. Transformative capacity pertains to the ability to tackle the social, economic and political conditions that result in structural vulnerabilities. These changes are very difficult to observe at the household level, and indicators used to measure changes in transformative capacity were chosen generously based on available data from household surveys (Fuller, 2016). Often, these projects measured transformative change while looking at only two or three indicators, such as attitudes towards innovation and participation in planning processes. To maintain the integrity of the concept of transformation going forward, Oxfam's resilience programmes should track indicators that can demonstrate both higher-level changes and changes in intra-household dynamics. This can also integrate the 'gender justice' approach Oxfam integrates across its programming, better capturing how Oxfam's interventions have improved the position of women and vulnerable groups in society.

6.2 Multi-scalar perspective

The majority of Oxfam's evidence of generating positive changes in resilience capacities lies at the local level (community/household/individual). From the enhanced uptake of adaptive agricultural techniques to the use of credit and finance and from the improved position of women in decision-making to the establishment community risk management groups, most changes in resilience capacities have taken place at the local level. This owes partly to the nature of the data used to assess these changes; household surveys are limited in their ability to capture higher system-level dynamics. Additionally, Effectiveness Reviews that provided the bulk of data for the analysis in this report focus sharply on changes at the household and community level. This apart, the focus on the household, local and community levels is also likely related to timescales of projects. Building resilience capacities beyond the household level often requires engaging with institutional, political and environmental factors that rarely show radical changes in a few years.

This said, certain indications of changes at broader levels can be ‘imputed’ from the analysis in the aforementioned sections. A number of projects entailed NRM activities such as tree planting, soil conservation and afforestation. Even though the project intended these to benefit local communities, it is entirely likely they had a positive impact on the broader/wider environment. Similarly, certain projects effected changes in policy processes. This included opening up spaces for people’s participation in planning processes (Pakistan), supporting the creation of laws for the improved management and greater conservation of natural resources (Indonesia) and advocacy for the establishment of new government bodies (such as the municipal disaster risk reduction and management council in the Philippines). Again, while the intention behind effecting these shifts was to benefit project communities, it is likely they will have a broader impact. There is therefore a strong case for Oxfam’s resilience programmes to adopt a multi-scalar perspective to ensure higher levels of governance are firmly in view from the inception phase.

6.3 Agency, empowerment and inclusion

Deep dives revealed that issues of power had a crucial bearing on resilience capacities and need more attention. Issues of caste, religion, corruption, debt and gender have an important mediating effect on people’s capacities to deal with shocks and stresses. Bringing further attention to these issues can support design of more improved programmes that can work more effectively in local contexts, moving away from a technocratic approach to resilience-building and instead recognising the inherent difficulties in tackling such complex issues. A number of examples from the analysis in the preceding sections would support this point. The case study on Chad reveals the manner in which staff running project activities found it very difficult to include members of a highly marginalised section of the community belonging to the Haddad ethnic group. They were included only after Oxfam staff engaged in tense negotiations with community elders to ensure their inclusion. Those belonging to this group have no claim over land or access to water and their exclusion from the project may have accentuated their vulnerability and marginalisation further as project activities would have resulted in an increase in the resilience capacities of the other members of the community. Similarly, in Pakistan, Oxfam staff discussed the manner in which sustainable improvements in people’s capacity to deal with disasters could be induced only by navigating complex administrative and political structures to ensure vulnerable communities gained a voice and agency in decision-making. This was done by claiming a space for people’s representation in previously closed policy spaces, where crucial plans, including the district disaster management plans, were consolidated.

Any discussion of empowerment is incomplete without a discussion of the position of women. There is almost no project within this sample that did not acknowledge the importance of gender, and our analysis finds that ‘empowerment’ is one of the most commonly used social change processes and appears across all the projects that are part of the case study review. From engaging women in savings groups in Senegal to running WECs in Nepal, Oxfam projects demonstrate a strong understanding of the need for gender empowerment. This in turn has led to changes in their resilience capacities. For instance, the strong emphasis on gender empowerment in the NGO Climate Change Adaptation Programme in Vanuatu led to more women (90%) than men (73%) reporting that they had resilient livelihoods. Similarly, as a result of the Climate Change Adaptation among Small Producers project in Nicaragua, 87% women beneficiaries actively offered their opinion on adaptive farming activities versus only 76% in comparison households.

Overall, this points to the need for Oxfam to not only continue with but also to put a renewed emphasis on agency, empowerment and inclusion as part of building resilience.

6.4 Measuring resilience

Methods of measuring resilience adopted by Oxfam need to be geared towards tracking changes across scales, unlike current evaluations and reviews, which have focused largely on household and local levels. While the field of knowledge on resilience measurement is still nascent, a number of resilience frameworks, including Oxfam's Framework and Guidance for Resilient Development offer fresh insights (Jeans et al., 2015). This argues that, 'As an organization that works from local to global levels through a one programme approach, Oxfam is uniquely positioned and obliged to use its power and position to bring about systemic change and build the capacity of others to think and act systemically' (ibid: 5). Translating this stated vision into measurement approaches is vital.

Additionally, many of indicators from evaluation reports (and some from Effectiveness Reviews) are focused on tracking project outputs or intermediate outcomes (such as implementation of an early warning system) rather than outcomes (reduced disaster mortality and losses). Therefore, while this is established practice for projects (that typically last between three and five years), it only permits an estimation of 'latent' resilience capacities and does not communicate a picture of resilience that has been tested. Measuring outcomes or impacts becomes difficult in the context of short-term projects; a clearer focus on these aspects can help us understand whether projects are resulting in the intended benefits. The case of Nepal (included in Section 5) demonstrates that project inputs/outputs did not result in the intended outcomes.

It is also vital that an understanding of resilience (and the three capacities) be reflected in approaches for M&E from the very beginning of projects. A retrospective analysis of the manner in which project activities may have contributed to resilience will always yield only a limited perspective. A robust baseline using contextually relevant indicators that are then tracked at regular intervals is one of the factors that is vital to gain a fuller perspective on changes in people's capacities.

Finally, Oxfam's Framework and Guidance for Resilient Development notes that resilience is 'the ability of women and men to realize their rights and improve their wellbeing despite shocks, stresses and uncertainty' (Jeans et al., 2015: 4). This means it is vital Oxfam start to focus not only on gauging changes in resilience capacities but also on accounting for shocks and stresses and monitoring changes in well-being as part of a comprehensive approach to measuring resilience. This will provide a clearer understanding of whether latent resilience capacities are deployed and used in the way they are expected to for ensuring human development and well-being do not suffer as a result of shocks and stresses. It is entirely likely that major gains in well-being will not be achieved within the course of projects but the degree of dips in well-being following disasters may be recorded, providing insight into the effectiveness of resilience-building.

6.5 Social change processes and building blocks

The most common social change process that was used to build resilience was 'empowerment', closely followed by 'securing and enhancing livelihoods'. Gender justice is a key pillar of Oxfam's programming, and empowerment of beneficiaries was often a core focus of initiatives aimed at building resilience. Some did this by focusing specifically on inclusion of women into projects, but empowerment was also achieved through targeted activities: for instance, Oxfam's project in Vanuatu helped create space for youth inclusion in DRR through a range of activities that empowered them to lead a youth climate movement. Empowered and forward-looking youth can spearhead activities in contexts where top-down initiatives cannot deliver resilience for all groups.

In some cases, social change processes occurred in tandem. This applied primarily to learning and informing, which often overlapped. Although 'learning' encompasses peer-to-peer learning and

instigating a learning process that opens up potential for innovation, while ‘informing’ is more strictly concerned with using information to orient policy or livelihood decisions, these two processes were intertwined. In Vanuatu, the project was highly successful in increasing understanding of climate change and its potential impacts. The project also included efforts to link traditional knowledge with climate science, which helped bring community knowledge and priorities into higher-level stakeholder decision-making. The local knowledge helped *inform* climate policy and practice and the stakeholder forum was used to enhance *learning* about climate change. The processes helped the programme input into national policies on CCA, while also facilitating trainings and inputting into a curriculum that linked schools to government policy-makers.

Although social change processes did not reveal any ‘gaps’ in Oxfam’s resilience programming, building blocks were heavily oriented towards DRR and CCA. Market development was the least common building block among the projects sampled, though in interviews project staff in Chad and Vanuatu expressed that they were considering integrating market development in follow-up projects. Staff emphasised that successful market development is much harder to effect in the extremely remote areas where the projects were located.

6.6 Multi-stakeholder collaboration

All of the projects reviewed took a multi-stakeholder approach, with a focus on working with community members through local partners, and in some cases with community-based groups, other organisations/institutions and local/national government. Building horizontal and vertical linkages has been critical to the success of these interventions, and has also helped reduce duplication while building the capacity of partners and the outreach of interventions, for instance in Vanuatu. In addition, working with local partners has proven successful in most cases, thanks to their knowledge of the local context, culture and language; for instance, in Timor-Leste, project partners were able to reach more remote areas and ensure higher participation of beneficiaries as a result of working in the area previously.

Project interventions have helped build collective action at the community level, which has contributed to enhanced social cohesion and the participation of different groups in decision-making and implementation processes. This participatory approach has also helped ensure that civil society and local/national governments are held to account, in terms of incorporating and meeting these needs. This approach can help challenge power relations and the *status quo* at different levels, while also helping build trust and solidarity on resilience-building initiatives. Working with CBOs can help build trust and connect the local level with other stakeholders, such as local government, who can help support wider policy change. There are a number of projects through which multi-stakeholder collaboration has had an impact on policy and planning. For instance, in Nepal, the project’s emphasis on creating stronger links between government authorities and communities was accomplished with the support of local development agencies, and resulted in the government authorities integrating the project’s DRR objectives into annual development plans. Nevertheless, across the projects reviewed, there were a number of challenges associated with working in a consortium and across different scales; these include defining roles and responsibilities, high turnover of staff, funding sources, coordination and language barriers. Challenges also existed in terms of finding reliable partners to work with, for instance in Chad, owing to corruption and limited capacity of local partners, which had an impact on the scope of the project.

Building partnerships and collective action across different scales and sectors, through multi-stakeholder collaboration, reflects a system-based approach, which is critical for building resilience. Working in this way helps promote a holistic and inclusive approach to decision-making and planning that is context-specific, and helps harness and build on different stakeholders’ needs, capacities, expectations, knowledge, skills and resources. It is therefore vital that Oxfam continues to take a multi-stakeholder approach to its programming, so as to ensure the greatest impact and uptake of its work at different scales and across different

sectors. This will also help promote the sustainability of the project, even after the intervention has ended, as recognised in a number of the project documents.

Keeping these issues in mind will help ensure Oxfam improves its resilience programming and demonstrates a higher degree of effectiveness in building absorptive, adaptive and transformative capacities.

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NOTES

- ¹ 'Anticipatory capacity is the ability of social systems to anticipate and reduce the impact of climate variability and extremes through preparedness and planning' (Bahadur et al, 2015: 23). Essentially, this refers to the aspect of absorptive capacity that allows vulnerable individuals to prepare for particular shocks and stresses in advance.
- ² This section draws on Dalberg (2015); Oxfam (n.d.a.); Oxfam America (2015); and interview with Tenin Fatimata Dicko, Senior Program Officer, Oxfam America, Senegal.
- ³ This section draws on Bishop and Fuller (2015); Oxfam (n.d.b.); Oxfam (2010); Oxfam (2013a); interview with Lesbia Beatriz Gonzalez, Oficial de Programa Oxfam, Managua, Nicaragua.
- ⁴ Use of organic agricultural inputs has been seen to enhance biodiversity, which ensures healthier ecosystems that in turn support adaptive capacity (FAO, 2016).
- ⁵ This section draws on Ahmad (2010); Bilal (2010); Hughes (2012); Walsh and Fuentes-Nieva (2014); interviews with Jamila Nawaz, Programme Manager, Disaster Risk Reduction and Climate Change, Oxfam GB, Pakistan Programme and Javed Iqa, Programme Manager in Doaba Foundation, Punjab, Pakistan.
- ⁶ While 'statistically significant, the effect estimates for the credit access characteristic are much smaller than those of the other characteristics' (Hughes, 2012).
- ⁷ Attitudes to climate change were not included in the baseline as recalling such data was considered inappropriate (Hughes, 2012), therefore the significance of these results may be questionable.
- ⁸ This section draws on Bishop (2014); Oxfam (n.d.c.); Oxfam (n.d.d.); Oxfam (2014a); Oxfam (2014b); interview with Bimal Gadal, Director Sustainable Development Directorate, Oxfam GB, Nepal.
- ⁹ This section draws on Ensor (2015); Maclellan and Bradshaw (2015); Sterrett (2015); Webb et al. (2015); interview with Daniel Vorbach, Director of Programmes, Oxfam, Vanuatu.
- ¹⁰ This section draws on Oxfam Australia (2014); van Duijn (2015); interview with Wayne Gum, Portfolio Manager/East Asia Regional Manager, Oxfam Australia.
- ¹¹ This section draws on Fuller and Cardenas (2014); Oxfam (n.d.e); Oxfam (2013b); Oxfam (2013c)p Oxfam (2014c); Oxfam (2014d); Oxfam (2014e); Oxfam (2015c); interview, Kamilah Morain, Head of Programme, Oxfam GB, Chad.

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