



Analysis of ARC-D baseline-endline assessments in 10 communities of Chikwawa District, Malawi

Executive Summary

The following document compares the results from two ARC-D applications – baseline and endline assessments – in 10 communities of Chikwawa District in Malawi over a 1.5 year timeframe, based on the risk scenarios of floods, heavy winds and droughts. The assessment informed the “Promoting Sustainable Partnership for Empowered Resilience (PROSPER)” Programme in Chikwawa District, Malawi. **The results indicates that on average, communities increased disaster resilience by 40% due to programme interventions.** The highest increase in resilience occurred under the Floods risk scenario, followed by Droughts and Heavy Winds. The thematic area with most improvement was *Understanding Disaster Risk and Strengthening Governance to Manage Disaster Risk*. The communities with the most significant improvements were Suweni and Joseph, while the least improvement occurred in Mpokonyola and Nyambalo.

Limitations from the process include the small sample size not representative of Traditional Authorities or of Chikwawa District, the need to complement the “Analysis of Resilience of Communities to Disasters” or ARC-D Toolkit with a household resilience measurement tool, logistical

constraints, and lacking a control group to compare outcomes. Success factors are attributed to the adequate preparation of facilitators in the ARC-D application, available information on Part A for the endline assessment, enhanced coordination between governance structures, and usefulness to communities for identifying gaps in Disaster Risk Reduction (DRR) and land use sectors.

Actors such as GOAL, other PROSPER consortium members, national or community agencies can use these findings and learnings to identify for the future, what aspects of resilience can be leveraged, strengthened, or transformed to better support community disaster resilience. Meanwhile, lessons in how to improve ARC-D assessments while providing well-documented evidence of impact of interventions or other factors are shared.

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1. Background

1.1. The PROSPER programme

“Promoting Sustainable Partnership for Empowered Resilience” or PROSPER was a multi-stakeholder resilience programme supporting the Government of Malawi, designed to reduce extreme poverty and end the recurrent cycle of crises and humanitarian assistance. It was funded by UK Aid under the BRACC (Building Resilience and Adapting to Climate Change) programme. Between December 2018 and March 2023, the programme would target more than 950,000 vulnerable people in the districts of Balaka, Chikwawa, Phalombe and Mangochi.

GOAL Malawi was part of the implementing consortium with Concern Worldwide, CUMO Microfinance Limited, Food and Agriculture Organization (FAO), Kadale Consultants, United Nations Development Programme (UNDP), United Nations Children’s Fund (UNICEF), United Purpose, and United Nations Resident Coordinator’s Office, together the “Promoting Sustainable Partnership for Empowered Resilience (PROSPER)” Programme.

In early 2021, a premature closure was announced by the funder, closing operation for most of the consortium members, due to pandemic-related budget cuts. The project implemented resilience interventions in the Chikwawa District by improving anticipatory, absorptive and adaptive capacities and facilitated transformative systems change including access to markets and financial services. The PROSPER programme started in December 2018 and ended in August 2021 (during March 2021 the Foreign, Commonwealth and Development Office (FCDO) communicated the decision to terminate the grant to the consortium).

The programme’s vision was to be a collective and influential voice for innovation, evidence and impact, and to provide a collective platform for enhanced engagement on policy and programme implementation to build the resilience of households and communities, strengthen shock sensitive social protection, expand climate smart agriculture, reduce exposure to hazards and risks, and achieve food and nutrition security by diversifying and improving income generation and economic opportunities.

1.2. The ARC-D toolkit

The “Analysis of the Resilience of Communities to Disasters” ARC-D Toolkit assesses a community’s resilience to disasters through qualitative and quantitative data and analysis. It consists of a practical assessment guide that evaluates 30 components using the Focus Group Discussion method with knowledgeable actors from the community. It is accompanied by an orientation manual for the user and a digital platform for data gathering (CommCare).

Since 2015, the ARC-D has been applied in 20 countries in four continents: Honduras, Nicaragua, Guatemala, El Salvador, Cuba, Colombia, Ecuador, Mexico, Haiti, Niger, Sudan, South Sudan, Ethiopia, Kenya, Uganda, Malawi, Philippines, Bangladesh, Sierra Leone and Spain. It has been widely used in in urban and rural contexts, with more than 300 evaluations carried out to monitor and evaluate GOAL’s programmes and other donor programmes such as from European Union and USAID. The ARC-D manual is available in French, English, and Spanish on GOAL’s resilience website: resiliencenexus.org.

Components of the ARC-D

Part A: Basic information & risk scenario selection

Part A. Assesses the general context of the community and determines the risk scenario.

It captures essential data about the local population, governance structures, the built environment, the attributes of the system, vulnerable groups, shocks and stresses and coping mechanisms.

Operationally, Part A requires the completion of tasks and activities such as deskwork and document revision, interviews with key informants and in-field observations. The scope of Part A is defined by the context.

Part B: Community Disaster Resilience Characteristics Assessment

Part B. Evaluates the level of community resilience to the chosen disaster risk scenario of Part A. Using a 1-5 scale, 30 key questions are discussed and validated with an already selected Focus Group. Each question is given a score from 1-5, where 1 indicates characteristics of very weak resilience (you assign 1 point), and 5 indicates characteristics of strong resilience (you assign 5 points). At the end of the entire evaluation process, a total resilience score for the 30 questions is calculated and is equivalent to **the level of the community resilience to disasters**.

A) The 30 components can be classified in 4 key thematic areas from the Sendai Framework 2015-30 on DRR:

1. Understanding disaster risk
2. Strengthening governance to manage disaster risk
3. Reducing vulnerability to improve resilience
4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery.

B) These 30 components can also be grouped in 8 key system sectors: education, economic, environment, political/governance, health, infrastructure, social/cultural and disaster risk management.

The CommCare application for digitalizing data

To digitalize data from assessments, ARC-D uses an open-source data collection platform called CommCare that operates on Android devices or internet browsers and stores data on cloud-hosted servers. The CommCare application can work offline and once connected to the internet, sends the assessment data to the project's CommCare database. This sent data can then be exported onto an offline Excel or Power BI dashboard.

1.3. Objectives

To compare the results of baseline and endline ARC-D assessments to learn how the PROSPER programme contributed to building community disaster resilience in Chikwawa District.

2. Methodology

2.1. Timeframe and risk scenarios

The baseline and endline assessments were applied between February 2020 and July 2021, a period of 1.5 years. The risk scenarios identified during the baseline assessment were the same risk scenarios analysed during the endline assessment: *floods, droughts, and heavy winds*.

2.2. The process

GOAL set up a team from the Monitoring, Evaluation, Accountability and Learning (MEAL) unit to apply the assessments in two parts: data collection and contextual analysis of communities for Part A via Key Informant Interviews (KII), desk research and observation, and evaluating the level of community resilience to the chosen disaster risk scenario for Part B via the realization of Focus Group Discussions (FGDs). The data was later reviewed and digitalized into CommCare.

2.2.1. Resources involved

The budget for the endline assessment provided a good idea of general cost of implementing ARC-D assessments. Approximately €600 were spent for the 10 endline ARC-D assessments, or €60 per assessment. This included snacks for participants, accommodation, per diems and mobile data services. Staff wages are not included; the team was made of 1 driver and 4 facilitators. No data on the baseline assessments costs is available at the time of developing this case study.

2.2.2. Selection of Communities

Chikwawa district is located in the Southern Region of Malawi, with a population of just over 560,000 people. It is made of wet and dry seasons that result in different types of disasters with floods and prolonged dry spells dominating. Its administration, the district council, is composed by councillors, members of parliament, Traditional Authorities and Interest Groups.

It has a total of 12 Traditional Authorities. Approximately 27.6 % households are poor while 39.8% households are reported to be in ultra-poverty. Agriculture is the main economy (Chikwawa District Council, 2017-2022).

A sample of 10 communities were purposively selected from 5 Traditional Authorities (TA) in the Chikwawa district where the PROSPER Programme was implementing resilience building activities. Selection criteria of communities consisted of accessibility, type of hazard and the number of households in the community. The 10 selected communities were target areas of the PROSPER programme for Disaster Risk Response (DRR) and Climate Smart Agriculture (CSA) activities.

Table 1. Selected communities and Traditional Authorities (TA) from Chikwawa District

| TA Maseya | | TA Chapananga | | TA Ndakwera | | TA Makhuwira | | TA Katunga | |
|-----------|--------|---------------|---------|-------------|----------|--------------|------------|------------|------------|
| Joseph | Kalima | Kuwani | Galonga | Suweni | Ndakwera | Nyambalo | Kanyimbiri | Kapasule | Mpokonyola |

In these communities, 80% of the land is owned by the community members and 20% by the private sector, mostly companies engaged in commercial farming and other businesses. The most common livelihood option of the targeted communities is subsistence farming (70%), piece work or casual labour (commonly known as “ganyu”) is 15% and employment is 5%. Those employed also include people that are seasonally employed, usually for a minimum period of six months. One of the country’s major sugar producers, Nchalo Illovo Sugar Estate is in the district; the estate occupies a large area of land and is the main employer of casual labourers and seasonal workers.

2.2.3. Part A: Community context

During the baseline, a comprehensive assessment of the context of the communities was conducted that included field visits to develop Key Informant Interviews (KII) and in-field observations. These focused on the socio-economic profile of the communities, demographic information, main hazards affecting the communities and the frequency of occurrence (risk scenarios). Structured observation and walks through the communities were conducted to describe the topography, natural and physical features associated with the communities. For the baseline assessment, Part A information was updated. Some brief KII were carried out to confirm if any major changes had occurred in the communities. Only a completed evacuation structure in Kalima community was identified.

More detail on the community's context can be found in the ARC-D report and the Chikwawa District Council report, as well as the Resilience Nexus¹. Part A was concluded with the team confirming the **risk scenarios** against which the communities' resilience was going to be assessed. These are:

Table 2. Risk scenarios analysed for each community

| Risk scenario: Drought | Risk scenario: Floods | Risk scenario: Heavy Winds |
|------------------------|---|----------------------------|
| Ndakwera | Kapasule, Kalima, Joseph, Suweni, Galonga, Kanyimbiri, Mpokonyola, Nyambalo | Kuwani |

2.2.4. Part B: Resilience assessment

Part B of the toolkit was implemented by the MEAL team in Malawi who had been previously trained and certified on usage of the toolkit, these included 4 facilitators divided into 2 groups (one male and one female). One person in each group was responsible for notetaking and the other for facilitating discussion. For mobilization during field visits, a driver was contracted.

The team did everything possible to ensure at least 8 community members, and no more than 15 community members, were present at each FGD. The FGD's comprised of representatives from village committees, teachers, community-based workers, men, elderly women from different livelihoods and faiths, and other vulnerable groups as identified in the context analysis. GOAL staff managed the mobilization of focus group participants to the location of the FGD sessions. Snacks were provided to participants.

Figure 1: Disaster Resilience Scores (ARC-D Toolkit)

| Level Description Table | | |
|-------------------------|-----------------------------|--|
| 1 | 0-30% (30-45 points) | Minimal or no resilience Little awareness of issue and no action |
| 2 | 31-50% (46-75 points) | Very Low Resilience Some awareness and motivation, some action, but action is piecemeal and short term |
| 3 | 51-70% (76-105 points) | Low Resilience Awareness and long-term actions, but these are not linked to a long-term strategy and/or not all aspects of the problem are addressed. |
| 4 | 71-90% (106-135 points) | Close to Resilience Actions are long-term, linked to a strategy and address main aspects of the issue, but there are still deficiencies (especially systemic) in implementation |
| 5 | 91-100% (136-150 points) | Resilience Actions are long-term, linked to a strategy, addressing all aspects of the issue, embedded in society and sustainable |

Source: ARC-D Toolkit, GOAL, 2019

¹ To view results from each community, activate the Community filter by District, Traditional Area or Community.

FGD sessions had to be scheduled during weekdays, when most community representatives work their daily shift, due to the rapid planning for the endline assessments. This reduced the time available for the sessions and also meant facilitators had to work efficiently to complete the assessments in each community. On average, the sessions lasted around 2 to 2.5 hours.

Participants and the facilitator discussed the sets of questions from the **30 components of resilience characteristics of the toolkit**. The facilitator detailed the Disaster Resilience Level scoring and the meaning of the scores in order for reach consensus on the resilience score. Participants were asked to give an indicative rating on how they would rate their community within a score range of 1-5 as shown in Figure 1. Subsequently, the facilitator made an informed decision based on how the group answered the guiding questions, attempting to reach a consensus and give an agreed score. The justification for each score was duly recorded by the notetaker. Owing to the tight schedules of participants during the endline assessments,

the facilitator decided to prioritize and be brief with answers and comments from participants. In this sense, knowledge on how to use the toolkit was critical for being able to efficiently apply it under the time constraints.

2.3. Reporting and data analysis

Data analysis tools in Excel were used to determine global resilience score for the 10 communities, individual community resilience scores, average percentage increase, resilience levels per thematic areas and components. Visual graphs were generated to explain the results and a report was prepared by the team facilitators. The report provides more in depth information on each resilience evaluation and analysis of results. In the Resilience Nexus, GOAL's data sharing platform, endline results can be viewed as the Community filter (ie. Mpokonyola) or District filter (Chikwawa District) is activated in each dashboard. Website: https://resiliencenexus.org/global_scores/all-scores/. The results are analysed in two main categories: communities and thematic areas/components.

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| | |
|---|---|
| Global resilience score per communities | -Score between 30 - 150 -Percentages of increase between two measurements (baseline and endline) |
| Resilience level per components | -Level from 1 to 5 -Percentage of increase between to measurements |

3. Results

3.1. Global resilience scores

The global average resilience score of the 10 communities at the baseline was 57 points (Very Low Resilience) from a scale of 150 possible points². This global average score increased to 79 points (Low Resilience) at the endline assessment, signifying an estimated 40% increase in the global average resilience score. The next table compares the scores each community received at each baseline/endline assessment.

² With 30 being the minimum score.

Table 3. Total resilience score (in points) each community received for their baseline and endline assessment

| Kanyimbiri | | Suweni | | Mpokonyola | | Nyambalo | | Galonga | | Ndakwera | | Kalima | | Joseph | | Kuwani | | Kapasule | |
|------------|----|--------|----|------------|----|----------|----|---------|----|----------|----|--------|----|--------|----|--------|----|----------|----|
| BL | EL | BL | EL | BL | EL | BL | EL | BL | EL | BL | EL | BL | EL | BL | EL | BL | EL | BL | EL |
| 61 | 77 | 57 | 86 | 63 | 74 | 63 | 75 | 61 | 75 | 57 | 86 | 54 | 84 | 51 | 81 | 49 | 71 | 57 | 85 |

On average, resilience levels per component ranged from 1.8 – 2.3, or from Low to Medium Resilience (Figure 1). Figure 2 below shows the changes in resilience levels for each of the 30 components between baseline and endline. At the baseline, the highest average scores were found in components Health Access and Awareness, Water Security and Management and Participatory Community Risk Assessment. At the endline, the highest average score was found in components Education of Children in DRR, Participatory Community Risk Assessment and Dissemination of DRR information. Most of these components correspond to the thematic area of Understanding Disaster Risk. Section 4.4 delves into these findings.

3.2. Risk scenarios

Figure 3 illustrates the difference in baseline and endline results for each of the 10 communities according to risk scenario. Of the 10 communities assessed, 8 selected the Flood risk scenario; communities under this risk scenario experienced both the most significant increase in their resilience score, 59% in Joseph and 56% in Kalima and the least significant increase of 19% in Mpokonyola and Nyambalo. Overall, the communities under the Flood risk scenario increased their resilience score by 37%.

The remaining 2 communities, Ndakwera and Kuwani, increased their resilience score level percentages for the Drought and Heavy Winds risk scenarios by 56% and 49% respectively.

Most communities managed to increase the resilience levels for all or most components. The highest score at endline was obtained by the Ndakwera community for the drought risk scenario.

3.3. Thematic areas

The highest average resilience levels of the 30 components were 3.10 and 3.00, attributed to the thematic areas of *Understanding Disaster Risk and Strengthening Governance to Manage Disaster Risk*. The lowest average levels ranged from 2.90 to 2.70 for the thematic areas of *Reducing Vulnerability for Resilience and Enhancing Disaster Preparedness for Effective Response and to Build Back Better in Recovery*. See the average scores in percentages in Table 4.

In particular, Education of Children in DRR, which falls under Understanding Disaster Risk, has the highest average score, as for the most part the baseline scores calculated Medium Resilience (score 3), and with the PROSPER intervention, 8 communities increased this resilience score.

Table 4. Average % increase out of total score of 5 for each thematic area

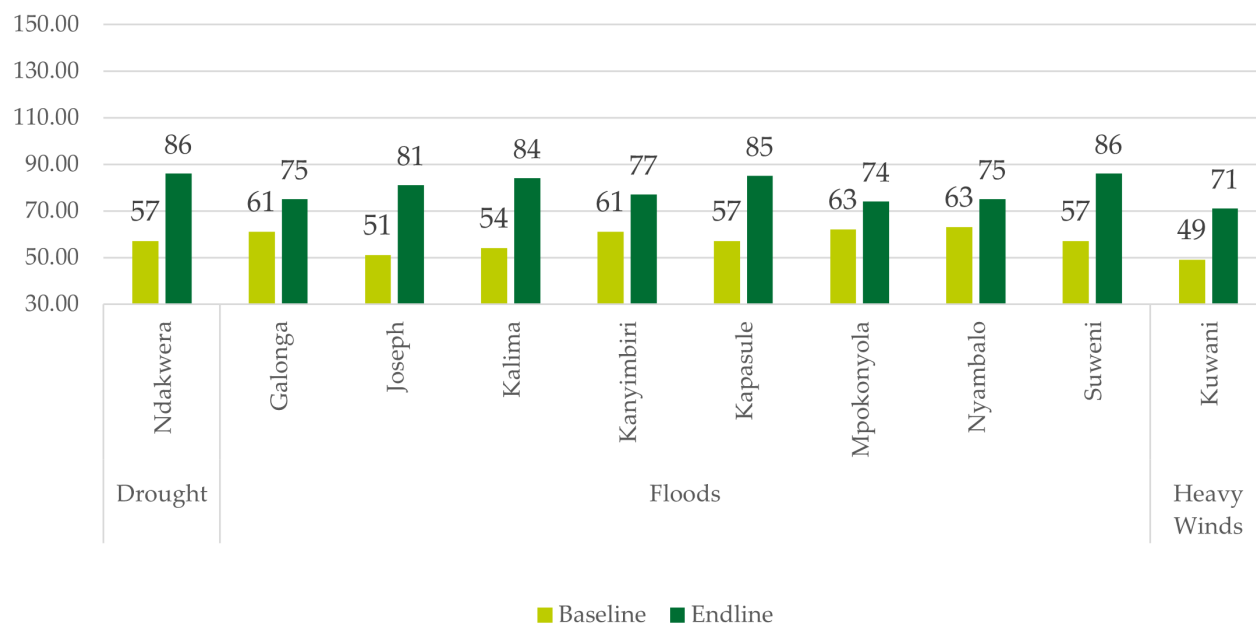
| | Thematic Area 1: Understanding Disaster Risk | Thematic Area 2: Strengthening Governance to Manage Disaster Risk | Thematic Area 3: Reducing Vulnerability for Resilience | Thematic Area 4: Enhancing disaster preparedness for effective response and to Build Back Better in recovery |
|--------------------|---|--|---|---|
| Average % increase | 39% | 55% | 40% | 47% |

Figure 2. Spider graph comparing communities average baseline score with average endline score for each component. Each component is evaluated from 1-5, see Level Description Table.

| | | | |
|---|------------------------------|--------------------------|---|
| 1 | 0-30% (30-45 points) | Minimal or no resilience | Little awareness of issue and no action |
| 2 | 31%-50% (46-75 points) | Very Low Resilience | Some awareness and motivation, some action, but action is piecemeal and short term |
| 3 | 51%-70% (76-105 points) | Low Resilience | Awareness and long-term actions, but these are not linked to a long-term strategy and/or not all aspects of the problem are addressed. |
| 4 | 71%-90% (106-135 points) | Close to Resilience | Actions are long-term, linked to a strategy and address main aspects of the issue, but there are still deficiencies (especially systemic) in implementation |
| 5 | 91%-100% (136-150 points) | Resilience | Actions are long-term, linked to a strategy, addressing all aspects of the issue, embedded in society and sustainable |



Figure 3. Endline vs baseline Comparison: resilience score (in points) per community scores for each community.



Note: a) The ARC-D Toolkit has a minimum score of 30 points and a maximum score of 150 points; b) Communities with the yellow circle show the highest increase in resilience scores between baseline and endline, indicating they improved the most between both assessments. Joseph increased by 59%, followed by Kalima with 56% and Joseph with 51%.

Figure 4. ARC-D resilience scores/levels description table

| Level description table | | | |
|------------------------------|---|---------------------|--|
| 0-3% (30-45 points) | 1 | Very low resilience | Little awareness of issues and no action |
| 31%-50% (46-75 points) | 2 | Low resilience | Some awareness and motivation, some action, but action is piecemeal and short-term. |
| 51%-70% (76-105 points) | 3 | Medium resilience | Awareness and long- term actions, but these are not linked to a long-term strategy and/or not all aspects of the problem are addressed. |
| 71%-90% (106-135 points) | 4 | Close to resilience | Actions are long-term, linked to strategy and address main aspects of the issue, but there are still deficiencies (especially systemic) in implementation. |
| 91%-100% (136-150 points) | 5 | Resilience | Actions long-term, linked to strategy, addressing all aspects of the issue, embedded in society and sustainable. |

3.4. Analysis of findings

The dialogue during the FGD highlights that some level of action has been undertaken since the baseline to address respective risk scenarios. Reflected in the resilience scores is the introduction of resilience building interventions that has contributed to some significant changes. These are discussed for those components with the most significant findings.

Education of Children in DRR, Dissemination of DRR information and Participatory Community Risk Assessment

Education in DRR and message dissemination has greatly improved in the communities. Although previously to the assessment it already scored particularly high scores in DRR related activities due to the school's academic curriculum, the endline assessment revealed that extracurricular activities had been included as a result of PROSPER interventions. Most significantly in Kuwani with the heavy wind risk scenario.

Teachers made deliberate efforts to establish environmental clubs which encourage tree conservation, with all schools having woodlots as a teaching aid. At household level, communities that have floods and heavy wind as their risk scenario, will pass down information to their children focused on keeping safe in times of emergencies. Kuwani has improved by focusing on incorporating DRR as part of their social skills studies. The Suweni community has a drama group that helps to disseminate DRR messages in the community and surrounding communities.

At differing extents all the targeted communities combine scientific and local knowledge to determine the occurrence of impending disasters. Between assessment periods, some communities have adopted scientific methods for determining impending disasters. In other communities, weather forecast reports from ra-

dio broadcasts has helped them become better prepared. Governance structures such as the village civil protection committees (VCPC) and village development committees have also been taking a leading role in sharing this information at community meetings.

Most of the communities are aware of disaster risks in their respective communities. All of the 10 communities have completed a risk assessment at some point within the project period.

DRR on Land Use, DRR on Development Planning, Water Security and Management, Partnerships for DRR and Recovery, Hazard Resistant Livelihood Practices, Access to Financial Services

There was an improvement in the approaches carried out by the communities to manage disasters in their respective communities. The coordination between the village committees has made communities integrate DRR activities in the village development plans. Each community has committees responsible for health, agriculture, DRR in Village Civil Protection Committee (VCPC), water points, DRR education by Parent Teacher Associations (PTAs) and youth and early childhood development. All the committees work under the umbrella of the village development committee, which makes it easier to integrated DRR activities into community development plans. Consideration for land is determined by topography and land ownership. While some communities have documented land plans, other communities consider land planning as a tradition where dambo areas or shallow wetlands, are allocated for animal grazing, some areas are allocated to forest reserves, uplands are for settlement and riverbanks for irrigation farming.

Communities that scored the lowest in their endline assessments were Mpokonyola, Kuwani and Nyambalo. At the time of the assessments were Mpokonyola, Kuwani and Nyambalo.

At the time of the assessment, these communities' activities were in initial stages under the PROSPER programme e.g., mobilizing of community structures, hence their keeping under **Category Resilience** of 2.

In Ndakwera, that has affected by drought in recent years, climate smart agriculture techniques and VSLAs were introduced, and as a result has seen improved food and income security and community livelihoods. This links to their improvement in the resilience score for land use, DRR planning and access to financial services. There is an increase resilience to Hazard Resistant Livelihoods component in five communities: Kanyimbiri, Suweni, Mpokonyola, Nyambolo and Kapasule. The project also introduced catchment area conservation activities, conserving riverbank catchment and a cash for input programme, providing farm inputs at a subsidized rate or price.

Components that reduced their resilience score were Water Security and Management, and Access to Social Protection. Communities face challenges to access the required quantity and quality of water for domestic use during floods. Water sources become contaminated, and some boreholes are damaged. Likewise, when there is drought, specific to Ndakwera, the water becomes more saline and some water sources do not produce enough water, hence communities' resort to using water from unprotected sources.

Inclusion of vulnerable populations in DRR activities is well understood in all communities. There are government guidelines that encourage social inclusion for all governance structures in the community. However, it was reported that for some specific intervention committees established by the PROSPER project such as the lead farmers committee, the most vulnerable were excluded because the requirement for selection was based on the ability to own land, contribute towards subsidized farm inputs and the ability to construct kraals for livestock pass-on.

Though there are communities practicing village savings and loans (VSLAs), these are still small-scale activities and there is still reliance on external partnerships.

4. How can the findings be used?

- The assessment findings help GOAL and other PROSPER consortium members to assess how the project improved community resilience through resilience building interventions. Other actors working in Chikwawa can also use the findings as an analysis tool for identifying functional aspects that can be leveraged for better resilience outcomes or dysfunctional aspects that need to be strengthened or transformed to better support community disaster resilience.
- External partners that collaborate with the evaluated communities can utilize the results to gain a deeper understanding of their capacities and needs.
- The results of this assessment can be used by the government, external partners or community leaders to inform new programme designs, giving special attention to interventions aimed at strengthening communities' food and income security through hazard resilient practices (which need to be reinforced), as well as crop resistance.
- Income and food insecurity is still a constant stressor in communities. Loss of crops, with many households unprepared to withstand this, is still the main problem that was emphasized during FGD sessions. At the time that the endline assessments were conducted, communities were in the midst of winter cropping and expressed their need for food and income security.

- Components that score lowest at the endline and that are critical for community resilience, such as access to financial services and market and emergency infrastructure, should be the next priority for future interventions.
- Availability of emergency infrastructure in the targeted communities remains a challenge, only one evacuation centre has been constructed in the Kalima community. Other communities' erect camps in schools or use school buildings to evacuate in times of disasters.
- Activities that were related to DRR such as training of remaining Village Civil Protection Committee (VCPCs) and supporting the communities in catchment conservation can be designed to be continuous or regular objectives in future projects or programmes.

5. Success factors

- The team in Malawi that was responsible for applying the baseline and endline assessments had previous training in and experience with applying ARC-D assessments. This experience enabled the team to complete the evaluations given the time constraints.
- The baseline assessment also served as valuable input for the endline assessment for Part A, with only an update of the contextual data needed. This sped up the process during the endline assessment. This will be a positive factor if future evaluations are developed in these same communities.
- While applying the ARC-D toolkit, FGD participants were able to identify gaps that exist in their communities with regards to DRR. For example, engagement of other community members in conducting risk assessments, land use planning and DRR.

- FGD participants at baseline and endline assessments included representatives from vulnerable groups that belonged to civil protection committees, village development committees and other committees. The FGD sessions have enhanced coordination between differing committees.
- At the time of the baseline assessment, many committees were finishing their 5-year term and were about to elect new committee members that were not yet trained in DRR. By applying the toolkit during this phase of governance, gaps were identified and shared for the first time with the district responsible for supporting DRR activities. This led to a revamping of governance structures after the baseline assessment, as the district began capacitating them.

6. Challenges and Limitations

- The sample is too small to statistically represent the entire Traditional Authorities or Chikwawa District. However, it can be representative of the target areas, specifically those with the same risk scenarios.
- The assessment was applied during participant's workdays, which hindered the flexible timing of the sessions. The facilitator had to use time more efficiently by prioritizing the set of questions per component and being brief in the discussion.
- Since the ARC-D is designed to specifically measure community resilience, it is necessary to complement the baseline and endline with tools that measure household resilience as well. This will be especially relevant to programmes or projects that include household resilience

- Due to logistical constraints, the team used some community contacts to mobilise participants and did not have ample time to verify the profiles of the FGD participants, this could have led to potential bias in the selection of participants.
- In addition to assessing PROSPER communities, it could have been helpful to add a control set that assessed communities where no interventions under PROSPER took place, in order to compare the outcomes.

7. Conclusions

- PROSPER contributed to improved resilience levels in the communities of Chikwawa district with the risk scenarios of floods, heavy winds and drought. Despite limitations from the pandemic, activities were conducted until the closure of the project was announced.
- Following PROSPER interventions, 7 out of 10 communities increased from Low to Medium resilience, with the exception of Kuwani, Mpokonyola and Nyambalo which maintained their Low Resilience Status. If the programme had continued its interventions, it is likely there would have been more improvements in resilience scores by the endline assessment.
- The resilience components with highest average score by the endline was found to be Education of Children in DRR, followed by Health Access and Awareness, Community Decision Making and Women's Participation. It should be noted that Health Access and Awareness and Community Decision Making were already high during baseline assessments, therefore the intervention only came to strengthen these resilience components.
- The ARC-D assessment shows how an intervention can influence a community's resilience to disasters, what particular areas have improved and what areas should keep improving or that are critical to improve. Well applied, the toolkit increases knowledge and awareness in the community about the risks they are exposed to, their level of resilience to them, and what measures can be taken to increase their resilience to a chosen risk scenario.

Special thanks to:

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and Concern Worldwide



Innovating to Overcome Humanitarian Crisis

The GOAL Programme Innovation Lab is a dynamic and collaborative unit established by GOAL to foster innovation within GOAL's programmes and to promote this work both internally and externally with the wider development and humanitarian community.

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