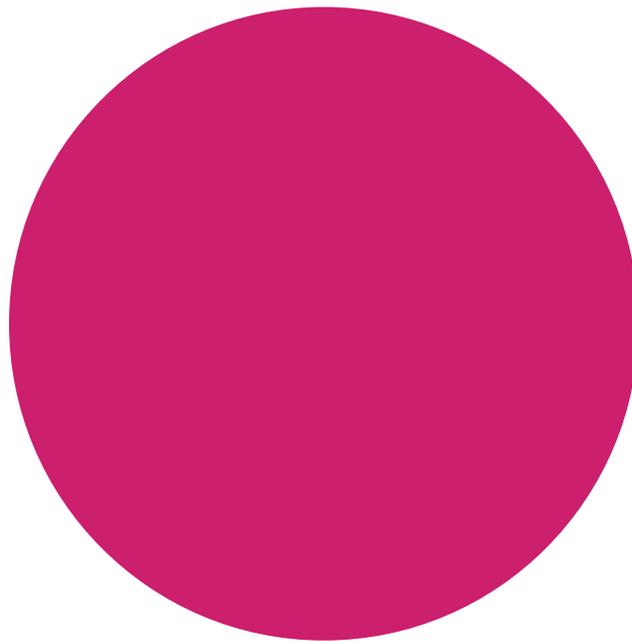


Misean Cara Learning Brief No. 2019/03

# Supporting Resilience in the Face of Climate Change

Learning from a Misean Cara Effectiveness Review



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## Introduction and Background

In 2018, C12 Consultants conducted effectiveness reviews of seven projects funded by Misesan Cara in Uganda, Kenya and Malawi, in order to establish the effectiveness of project implementation from design and planning to delivery.

This Learning Brief is based on the synthesis of information presented in the evaluation's Thematic Learning Report, aiming to unpack the concept of **resilience** in relation to climate change, to describe how resilience is being addressed by Misesan Cara, and to provide recommendations on how this can be built on.

## Resilience Frameworks: An Overview

For the purpose of this review, Misesan Cara and C12 agreed on a framework for analysing climate change resilience based on three key elements:

**Preparedness:** The capacity to manage crises or shocks when they happen, e.g., having a Disaster Management Committee or early warning system in place.

**Adaptation:** Adopting new practices and technologies to better cope with the effects of climate change, e.g., switching from cattle to camels.

**Damage Limitation:** Changing practices to reduce the effect of climate change on production, e.g., mulching maize fields to help conserve moisture and reduce the effect of dry spells on crop production.

These elements provide an initial resilience lens through which to review the effectiveness of a project. Resilience, however, is a multi-faceted concept; the following section looks more closely at the elements of a resilience framework.

## Response to Shocks and Stresses

The resilience approach is underpinned by the understanding that shocks and stresses are part and parcel of the development context and should not be seen as unexpected events. The most vulnerable people, who are usually the target of development assistance, are disproportionately affected by shocks and stresses,

hence the need to build resilience to absorb, adapt to, and mitigate the impact.

Analysis of resilience can be focused at different levels, for example at the level of the individual, the household, or the community. These are referred to as the system or unit of analysis<sup>1</sup>. While there may be similarities across individuals, households or communities, no two are the same. Each will have a different capacity to deal with shocks and stresses. Resilience programmes must be responsive to real needs and priorities, so context-specific assessment of hazards, vulnerabilities and capacities is needed. The first of Irish Aid's five principles for building resilience, for example, is to **start with the context** and respond to an integrated, participative, shared vulnerability analysis.<sup>2</sup>



*Solar Panels powering the Wenje Solar Irrigation System (Spiritan Fathers, Kenya). [Photo: Stewart Gee]*

These foundations (assessments of hazards, vulnerability and capacity) need to be robust to ensure that activities undertaken to build resilience are effective. In their comprehensive study of resilience measurement frameworks, the Overseas Development Institute (ODI) found that half of them used livelihood "capitals" (physical, human, social/political, natural, financial) to explain factors that contribute to resilience.<sup>3</sup> This is not surprising, as many of the resilience frameworks used have evolved from earlier sustainable livelihoods frameworks.

The capacity of a community to prepare for, minimise and/or deal with shocks and stresses is crucial when addressing resilience. When a hazard strikes, the internal capacity of the community is mobilised to address the unfolding event. This is often referred to as

<sup>1</sup> For ease of reading, the term "community" is used from this point forward.

<sup>2</sup> Irish Aid. (2016). *Irish Aid Policy Brief: Building Resilience*. DFA, Dublin. The five principles are 1. Start with the context;

2. Be responsive; 3. Invest in partnership; 4. Foster coherence and collaboration; 5. Act on feedback.

<sup>3</sup> ODI (2016). *Analysis of Resilience Measurement Frameworks and Approaches*. ODI.

a **contingency plan**: something in place to help save lives and reduce damage to property or infrastructure. If this is insufficient, then the event could turn into a disaster. In this case the community will require external help to address both immediate and recovery needs.

**Disaster** happens when the situation of a community lacks the capacity to handle a shock situation and requires external help to meet its immediate needs. During normal times, therefore, as well as having hazard-specific contingency plans in place, **capacity** should be increased so that when a hazard strikes the event will not turn into disaster.

If the community's capacity is more than adequate to address the hazard event and prevent a disaster, then it can be considered **resilient**. The community will be able to chart its own recovery. **Resilient recovery** is when the community has the internal capacity to pick up the pieces and resolve the situation.<sup>4</sup>

Resilience as a concept incorporates much more than the basic assets of a community. The interaction between the community and other actors is also a key determinant of resilience. Building networks, collaboration and increasing access to information will help to address constraints in the environment. These are crucial building blocks that should be incorporated in a resilience framework by taking a holistic approach to assessing hazards, vulnerabilities and capacities.



Lilian Edomasia in her vegetable nursery where crop diversification is an effective climate change adaptation strategy. (Franciscan Brothers, Uganda) [Photo: Stewart Gee]

## How can Resilience be Measured?

Building resilience usually requires a long-term approach. In measuring resilience as an **outcome**, what must be measured is the capacity of the target group

to protect and build assets (finance, property, knowledge, well-being, security and social cohesion) in the face of shocks and stresses.

What builds resilience depends on the context, the scale of the community or group being targeted and the shocks and stresses to which they are vulnerable. Indicators for strengthened capacity might include early warning and monitoring information, emergency response and adaptation plans, participation in institutional decision-making and networks of influence, access to assets and markets, psychological health, and access to public services or diversified revenue.

Research has found that a combination of qualities and capitals (e.g. physical, social, human, financial, natural) will provide a more accurate picture of resilience.<sup>5</sup> For example, at the individual level, psychological health can be a key determinant of a person's ability to manage shocks and stresses, yet most sustainable livelihood frameworks do not include this aspect.

## Findings of the Effectiveness Review: Reviewing Resilience

Resilience in the face of climate change requires that communities have the capacity to be flexible. Shocks and stresses can occur rapidly, and beneficiaries, as well as project teams, need to be prepared for this. Programming approaches also need to incorporate regular hazard and vulnerability assessments and to adapt accordingly.

Through the effectiveness review process, the evaluators found evidence that project delivery was at a high standard across all the projects visited (listed at the end of this Learning Brief), and of positive impacts with target groups, some of which can be seen in the photographs on these pages. The projects were seen to be making a significant difference to beneficiaries, often on limited budgets and timeframes.

The following is a summary of the more specific findings of the effectiveness review, focused on climate change resilience in project design and delivery. The three elements referred to above, preparedness, adaptation and damage limitation, were used for analysis, though a certain amount of overlap was noted. The findings and consistent themes across all seven projects are summarised below.

<sup>4</sup> Biñas, R. (2018). *The Resilience Paradigm: Facts for Transformation*. Caritas Germany, Cordaid.

<sup>5</sup> ODI (2016). Op cit.

## Preparedness

Though this was not a major focus in project design or implementation, a number of significant elements were noted:

- All projects featured some aspects of preparedness, notably where Village Savings and Loans (VS&L) groups were implemented. However, these were not usually designed in response to specific shocks, or strategically equipped to deal with shocks or stresses.
- Some projects had conducted participatory rural appraisal (PRA) or vulnerability analyses to inform project design against major threats.
- Some projects featured activities such as training on early warning and crop monitoring for disease and pest-control purposes.
- Improved inter-organisational coordination provided a foundation for preparedness at institutional level.
- Specific targeting of children with disabilities and other vulnerable groups was linked to preparedness.

## Adaptation

All projects were designing and implementing activities that addressed adaptation. The review process sought to ascertain what the major shocks and stresses were, and for the most part, activities were appropriate to adapt to those shocks. Examples included:

- Sustainable agriculture, including crop diversification, incorporation of livestock, agro-forestry, water conservation, and kitchen gardening. Such diversification makes agricultural systems more resilient.
- Irrigation schemes designed to adapt farming practices to weather the shocks of drought and dry spells.
- Access to safe potable water for household use had improved resilience against disease (and reduced the risk of crocodile attacks, as children were no longer sent to fetch water from the river).
- Income diversification away from subsistence farming reduced vulnerability to climate-based shocks and provided alternative livelihood options. Activities included trading, tailoring, carpentry, fish farming, work on local water projects, and stove production.
- Beekeeping in conjunction with afforestation activities, such as planting of woodlots and tree nurseries, was effective as an adaptation response

to dwindling wood supplies as well as contributing to the overall functioning of the forest ecosystem. Fruit trees were particularly well received.

## Damage Limitation

All projects were implementing activities that addressed damage limitation, specifically designed to limit the damage caused by prevalent shocks and hazards. In many cases, these altered existing practices to make them more robust. Examples include:

- Sustainable agriculture practices such as mulching, minimum tillage, use of manure or compost, plant populations, hybrid seeds and crop rotation, which helped to mitigate the impact of drought or dry spells, and at the same time reduced carbon release.
- Use of indigenous micro-organisms (IMO) in pig-rearing and banana cultivation.



*This piglet was reared by a farmer using IMO to keep the pigsty clean and to boost the piglet's immune system. (SSHJM, Uganda) [Photo: Stewart Gee]*

- Forest conservation practices helping to preserve soil and biomass resources which are under threat and protect against potential local energy deficits and desertification.
- Energy-efficient stoves and smokeless briquette making helped to protect against the stress of dwindling fuel supplies and had a positive impact on forests. They also contributed to improved health and saved time and money for households. In some cases, production and sale of stoves and briquettes generated income for project participants.



*Rose Lanyero, Chairperson of the Fish Farming Group at the WACFO project in Pabo, Uganda, feeds her fish with homemade feed. Diversification of household income in this way is an effective adaptation to climate change [Photo: Stewart Gee].*

## General Findings

- Some projects feature strong synergies between activities, which is evidence of the promotion of a resilient system. For example, the Environmental Conservation Project (St. Patrick's Missionary Society, Malawi) combines the activities of VS&L, energy-efficient stove production, income diversification, afforestation, forest conservation, beekeeping and sustainable agriculture. Each of these activities strengthens the others, and the impact on livelihoods and community resilience is much greater as a result. In addition, the activities are designed so that benefits are realised across multiple timeframes: VS&L and stove groups provide immediate tangible benefits; sustainable agriculture and forest management interventions generate benefits in the medium term; and woodlots are planted with a view towards the long-term benefit for the community.
- The capacity-building approach cuts across all three categories. Parallel activities such as adult literacy also strengthen the basis for improved resilience.
- There is strong evidence that VS&L activities help to diversify income and food sources, as well as providing individuals with a means of recourse in the event of a shock. Where this activity has been implemented in conjunction with others, the overall impact tended to be higher. There are elements of risk, however, in that, if improperly managed, VS&L can lead to circles of debt, stripping of individual assets, and damaged social relations. Also, VS&L groups have been known to lose effectiveness when shocks are experienced at a community level.
- Irrigation is one of the most successful interventions in providing an adaptation response to climate change. However, physical or geographical factors

may limit the scalability and replicability of irrigation systems.

- Targeting the most vulnerable (particularly people with disabilities) may require a more flexible approach to building resilience, as vulnerability to shocks and stresses differs on a case by case basis.

## Key Observations and Learning

The effectiveness review found that Misesa Cara is currently supporting projects that are helping communities adapt to climate change by offering alternative livelihood strategies and by helping to limit the impact of shocks. Project activities are generally appropriate for the challenges prevalent in the communities they serve, and much is already being done to increase resilience.

There is, however, an opportunity to feature more elements related to **preparedness**, and to build resilience thinking into project design. This is particularly important to ensure that projects continue to respond to community needs. The following points summarise the main findings from the review as they relate to climate resilience.

### 1. Project impacts are positive, significant and visible

There are many examples of projects achieving positive changes in the communities.

In the Women and Children First Organisation (WACFO) and Children In Need (CHIN) projects run by the Sisters of the Sacred Hearts of Jesus and Mary (SSHJM) in Uganda, VS&L groups have been particularly successful, increasing incomes and enabling community members to start building an asset base, with members saving money on a weekly basis. This, along with an annual share-out, has enabled them to pay school fees, purchase livestock, rent land, buy household assets and invest in small businesses. The CHIN project also features a group activity for each group to help them generate further income.

The Environmental Conservation Project (St. Patrick's Missionary Society, Malawi) features synergies which have made a significant difference to beneficiaries, as described by one of the project participants:

*“Previously I had hunger in the house, now I can buy food... I used to be in a dirty chitenje but now I'm wearing a new one... now I'm using a pail, not a clay pot to store and carry water”.*

The Sitima Community Action project in Malawi (supported by VMM) features an irrigation scheme supplemented by solar power, which targets the most vulnerable women from surrounding communities. Some of the women have attained a measure of food security throughout the year through sales of produce generated from the scheme. In a country where the hunger months preceding the harvest require annual relief programmes, this is a remarkable achievement.

## **2. There is evidence of project activities continuing long after project assistance has ceased**

Some projects featured community members who were no longer supported by the project but were still practising the activities that were implemented.

The Inter-Congregational Sustainable Agriculture Project (ICSAP), a project spanning three countries implemented by a consortium of seven Misesan Cara members, featured a significant number of farmers who received support to construct kitchen gardens and continued to maintain these long after the project had finished. Most had also trained at least one of their neighbours in how to develop a garden, multiplying the benefits of the initiative.

The CHIN project (SSHJM, Uganda) featured the continued use of IMO in kitchen gardening, showing the real value that participants see in the process. These gardens had also been expanded to include additional local vegetable varieties.

## **3. Approaches involved activities that help communities adapt**

Needs assessments or vulnerability assessments conducted by some projects provided a strong basis from which to design appropriate interventions. This would provide a starting point for a resilience-based approach to project design. In addition, many of the activities being implemented are suited to adaptation and damage limitation categories of resilience projects. Framing these activities in line with identified threats would be a key consideration.

## **4. Preparedness programming could be more strongly emphasised by updating the approach to project design**

Many of the projects feature activities which are implemented through community structures. These include the VS&L groups, irrigation scheme committees, farmers' groups, and stove groups. These structures, while highly effective in implementing activities, are not necessarily equipped to anticipate, manage and respond to shocks and hazards. In some

cases, this is happening on a basic level, such as the inclusion of disease and pest management/monitoring into irrigation and farmer groups, but there is room to introduce a more resilience-based approach.

The ICSAP project sought to improve the cooperation and coordination of faith-based organisations, which might provide a platform for improved preparedness at an institutional level.

## **5. Scientific research is needed to improve techniques and provide a stronger evidence base**

The use of IMO in the WACFO and CHIN projects in Uganda has had a favourable response from beneficiaries and project teams, with growing interest in this technology from the wider development community.

In the Ecology & Development project (Jesuit Missions, Malawi) the application of a natural pesticide using locally sourced ingredients is said to be effective against the fall army worm which is a major threat in the local context.



*Beehives in one of the forests being conserved by forestry groups from the St Patrick's Missionary Society's project in Malawi. [Photo: Akeel Hajat]*

## Targeted Recommendations

The projects included in the effectiveness review were not designed using a resilience framework yet, as outlined above, many projects featured interventions that contributed to overall community resilience. In order to formalise a resilience approach to implementation, in these any or other projects, the evaluators recommended some adjustments.

### 1. Incorporate preparedness

Building strong communities to prepare for and manage shocks is a key component of most resilience frameworks, which should ideally come into effect during project design. Appropriate preparedness mechanisms in project activities (disaster management committees, early warning systems, etc.) are an essential component of a resilience approach. A new approach could be promoted to develop this through the analysis of existing structures and institutions to identify capacity gaps. This analysis would need to be linked to the priority hazards identified by the target communities.

### 2. Identify context specific hazards/stresses

Some projects were designed on the basis of comprehensive vulnerability or needs assessments. These should be kept up to date and periodically reviewed, particularly in areas where there is a long-term engagement with communities. Where projects do not have initial assessments in place, an exercise should be conducted to inform any project adjustments.

### 3. Review adaptation activities in response to hazards/stresses

Adaptation was covered in all projects. To ensure it is fully covered in future projects it will be necessary to

systematically assess existing adaptive capacity in relation to each priority hazard identified and to identify gaps in this capacity that need to be addressed.

### 4. Review damage limitation activities in response to hazards/stresses

This component of resilience was widespread across all the projects. As with adaptive capacity, the main change required to move from a sustainable livelihood to a resilience approach would be to link the activity directly to the hazards identified and prioritised during community level assessments. Establish an understanding of potential hazards and regularly update this to see if interventions are aligned. Where some threats are not covered, build or tailor activities and outcomes accordingly.

### 5. Make project risk analyses hazard specific

In order to inform an effective and robust implementation approach, it is important to improve risk management. Structuring risk identification and management in response to hazards or stresses identified by both project teams and participants would provide a solid platform for informed project management and delivery.

### 6. Ensure that organisational and resource capacities exist to react to shock events

Early gains in community resilience can be eroded if multiple shocks are experienced in a short period, potentially negating the impact of previous good work. Responding to shocks in a relief capacity can help to protect initial gains in resilience. There is a delicate balance here, as caution is needed to avoid fostering a culture of dependence, thus undermining the objective of a resilience approach.

## Projects included in the Effectiveness Review

Member organisation	Projects
Franciscan Brothers in partnership with six other Misesan Cara members	Inter-Congregational Sustainable Agriculture Programme, Uganda, South Sudan and Kenya
St. Patrick's Missionary Society	Environmental conservation project, Malawi
Jesuit Missions	Jesuit Centre for Ecology and Development (JCED): Environment and Food Security in Kasungu District, Malawi
Sisters of the Sacred Heart of Jesus and Mary (Chigwell)	Women and Children First Organisation (WACFO): Environmentally friendly livelihoods projects for the marginalised in remote areas of Pabo Sub-county, Uganda
	Children in Need (CHIN): Empowerment of vulnerable women, unemployed youth, children and young people with disabilities, Uganda
Spiritans in partnership with the Augustinian Fathers	Wenje Water for Food Security, Kenya
VMM International	Sitima Community Action: Increasing resilience to drought and food insecurity in rural Malawi

## About Misesan Cara

Established in 2004, Misesan Cara is an international and Irish faith-based missionary development movement made up of 91 member organisations working in over 60 countries. We work with some of the most marginalised and vulnerable people in developing countries. Adopting a human rights focus, we support communities addressing basic needs in the areas of education, health, and livelihoods, as well as advocating for economic, social, cultural, civil and political rights. At times of humanitarian crisis, the trusted and long-term presence of missionaries in affected communities also allows for rapid, efficient and targeted responses.

Misesan Cara and our members work collectively and individually through the missionary approach to development. This framework is based on five values: respect, justice, commitment, compassion and integrity. Together, these establish the basis for the approach of missionaries to good development practice.

Our Strategy 2017-2021 identifies five goals:

1. Uphold the right to quality education
2. Uphold the right to better health, clean water and sanitation
3. Uphold the right to sustainable livelihoods
4. Uphold and advocate for human rights
5. Enhance and promote the missionary approach to development.

Further expressing our desire to reach the most vulnerable and marginalised, the Strategy sees Misesan Cara bringing a particular focus to bear on five groups: women, children, refugees, displaced people and people with disabilities.

### Misesan Cara Learning Briefs

This is one of a series of Learning Briefs produced by Misesan Cara with a view to promoting learning and contributing to discourse within the development sector. The Briefs are based on monitoring, evaluation and research work done for Misesan Cara. Previous issues cover topics such as education, health, project evaluation, women's empowerment and the response to the 2014 Ebola outbreak in West Africa. All Learning Briefs are available at [www.miseancara.ie/public-resources](http://www.miseancara.ie/public-resources).

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