Savings and climate resilience

A review of successes and challenges in current programming

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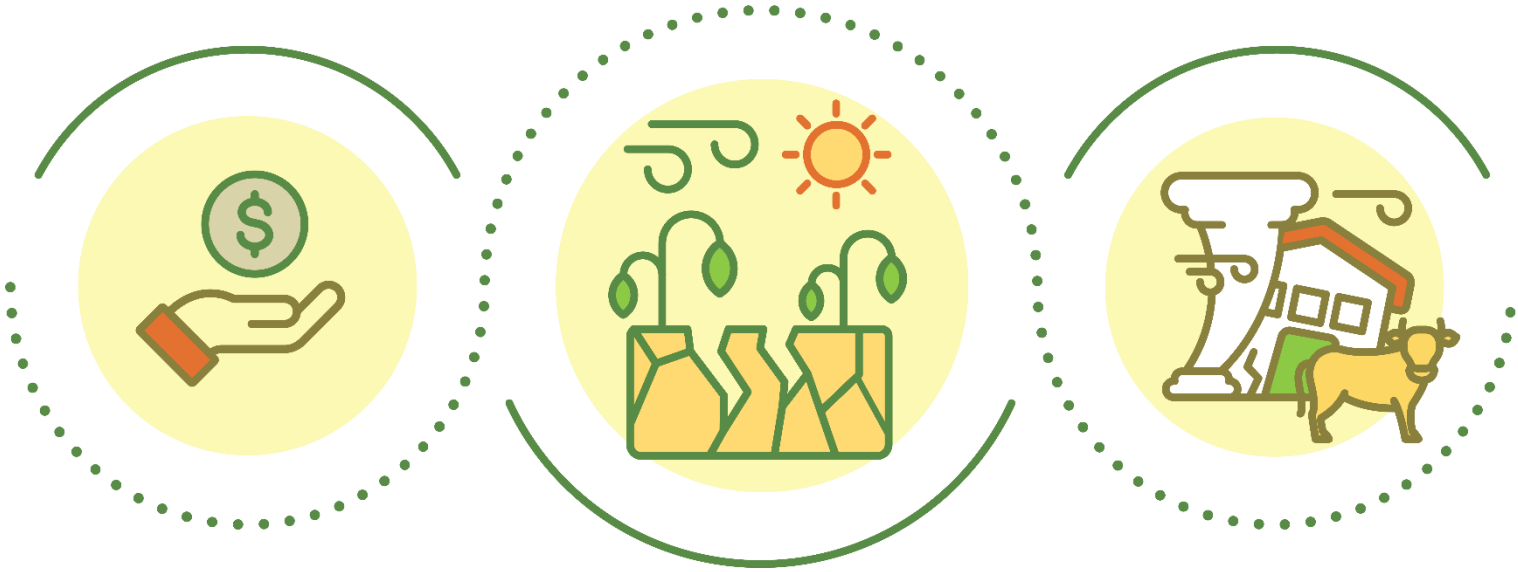
Authors: Elisa Sandri, Leonie Beckmann, James Robinson



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The Mastercard Foundation's Savings Learning Lab

The Mastercard Foundation Savings Learning Lab is a six-year initiative implemented by Itad, in partnership with the SEEP Network, that supports learning among the Foundation's current savings sector portfolio programs: Scale2Save, implemented by WSBI and Savings at the Frontier, implemented by OPM.

The Savings Learning Lab support learning among the partners and the wider sector through the generation, synthesis, curation and dissemination of knowledge on savings focused financial inclusion.

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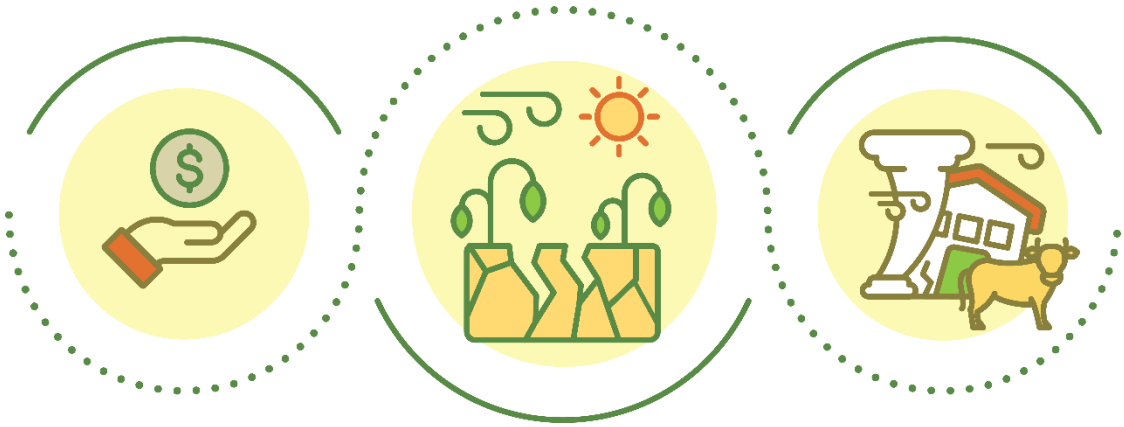

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1 Rationale and Scope of the Review

Rationale

Climate change is the most urgent challenge of our time, with significant consequences to humanity and to the natural world. The impact of climate change has disproportionately affected people living in poverty, particularly those dependent on agricultural and pastoral livelihoods, as well as among marginalized communities, women and girls. The existing vulnerabilities of these populations is often amplified by long-term climate stressors or disasters.

Development programs are increasingly aiming to support populations already affected by the impacts of climate change through a variety of interventions that aim to strengthen climate resilience. Programs focused on inclusive finance are also designing interventions to reach development outcomes, and within those programs there are considerable discussions on how savings can contribute to resilience more broadly. Yet, in the broader literature, there is little evidence on how inclusive finance, and particularly savings products, enhance climate resilience and support populations to anticipate, cope and adapt to climate shocks and stresses. This review brings together literature from the financial inclusion and climate change sectors to fill this gap in knowledge.

Box 1. Definitions of resilience for this review

No common definition of resilience exists, and it is understood and interpreted quite differently depending on its framing and use. For this review we have been influenced by BRACED, a flagship climate resilience program funded by DFID between 2015 and 2019, where resilience is understood as:

'ability to anticipate, avoid, plan for, cope with, recover from and adapt to (climate related) shocks and stresses' (Bahadur *et al.*, 2015)

Further information on Itad's understanding of climate resilience, including definitions, our learning on measuring climate resilience, and suggestions on how this can be improved see our recent, 2021, Practice Paper "Improving resilience measurement: Learning to adapt".

Scope

We reviewed program documents and literature to understand how programs designed to increase climate resilience have used savings components to achieve these aims, and reviewed

the available evidence on whether, and how, these components have led to improved resilience and the challenges that they have faced in doing so.

In this review, we focused particularly on disaster preparedness, response and adaptation to climate change. Nevertheless, as stressed in Itad's recent Practice Paper on resilience measurement, for a system, community, or individual to be truly climate resilient, there are wider system processes at play that go beyond the sum of a set of capacities to respond to climate change.[1] This paper provides insights from across the current literature and shares illustrative examples of programs and activities that have common experience in the three areas.

Through the review of literature, we found that savings interventions play a crucial role in supporting climate resilience interventions. The aim of this paper is to inform future programming in financial inclusion and climate resilience on what works to enhance resilience through savings initiatives. The paper is aimed at donors, practitioners and researchers working on savings-led initiatives and climate resilience programming.

It is important to note here that other types of shocks, including the COVID-19 pandemic, can offer insights into how savings groups contribute to resilience. On top of the risks posed by climate change, vulnerable communities and individuals face a variety of shocks and stressors that hinder livelihoods, as starkly highlighted during this COVID-19 pandemic. There are important lessons for savings groups emerging from the pandemic that can be useful for programs working in areas affected by a variety of shocks, including climatic ones. We have included some of these examples below.

In the following sections, we briefly outline our methodology, explore the link between savings and climate resilience by looking at examples, successes and challenges of savings programs in supporting disaster response, preparedness and adaptation.

2 Methodology of the Literature Review

We conducted a targeted review of literature, aimed at collecting evidence of savings interventions that support climate resilience (or climate resilience interventions with a savings component). We reviewed and collated a variety of documents, particularly focusing on program reports, and gathered the evidence in a matrix to respond to a set of agreed key questions:

- **How do savings products support individuals and communities to respond, prepare and adapt to climate change?**
- **Is there any difference in how formal and informal savings products strengthen resilience to climate change?**
- **How can savings services and products be more sustainable, enhancing adaptation to climate change?**

To identify relevant documents for the review, we applied criteria such as geography, time frame, intervention type, quality of evidence and language. The retrieval of resources was done in three stages:

1. Initial screening of the literature based on Itad's relevant project experience of savings and climate resilience. At this stage, we also accessed the Savings Evidence Map we produced for the Savings Learning Lab to identify relevant literature.

[1] Faulkner and Sword-Daniels (2021)

2. An internet search to identify key titles in academic literature and program documents, using a variety of key terms: 'Savings', 'Climate resilience', 'Adaptation to climate change', 'Financial products', 'VSLAs', 'Savings groups'.
3. Snowball sampling from the reference lists of the first set of papers, refining the search and adding to the list of titles.

We excluded sources that focused solely on other types of financial services (such as loans). However, we included relevant literature of programs that utilized a savings component even where climate resilience was not the focus. It is worth noting that the majority of the evidence we found linking climate resilience to savings components focused on savings groups, but we have taken into account the evidence from other types of savings initiatives. We then followed this process with a synthesis of evidence and a consolidation of key findings from the literature that are presented in this review.

In the next section (section 3), we have outlined examples of how savings initiatives were used in programming from the literature, common successes and challenges and an overview of key findings.

3 Savings and Climate Resilience

Savings and borrowing mechanisms have been included in climate resilience programming with the aim to support people both before and during shocks (disaster preparedness and response), as well as in support of climate adaptation. The following sections (3.1 and 3.2) draw on the available literature to highlight the main mechanisms through which savings contribute to improved disaster preparedness, response and climate adaptation. We will illustrate program successes and main challenges in linking savings initiatives to climate resilience outcomes.

3.1 Savings, Disaster Response and Preparedness

Examples and Successes

Overall, **savings mechanisms are most frequently mentioned in relation to disaster response as a mechanism to help members cope with shocks**.[2] Growth in savings, often through savings groups, is frequently a means to **withstand shocks and avoid negative coping strategies**, such as sale of assets or reduced food consumption.[3] As an example, in Kenya, PROGRESS (BRACED) aimed to build savings to help pastoralists smooth consumption during prolonged periods of drought.[4]

The literature shows that **savings mechanisms can be key to ensure individuals do not incur additional debt** as a result of extreme weather or shocks. Under CARE's GRAD (Graduation with Resilience to Achieve Sustainable Development) program in Ethiopia, members of the savings groups were able to sustain a prolonged period of drought without having to access loans from microfinance institutions.[5] In other cases, savings groups modify their objective from providing livelihood assistance, informally becoming short-term key emergency response agents until more formal support is provided by the government or NGOs during emergencies.[6]

[2] Gash and Odell (2013)

[3] Alliance for Financial Inclusion (2019)

[4] Faulkner and Silva-Villanueva (2019); Leavy et al. (2018)

[5] Murphy, Hepworth and Verkaart (2019)

[6] Murphy, Hepworth and Verkaart (2019)

Communities' access to intangible assets created through savings groups, such as social networks, also contribute to enhancing resilience.[7] A recent evidence review on resilience building mechanisms through self-help groups, highlighted that savings groups are a key mechanism to enhance social capital by building group solidarity and networks.[8] For example, thanks to the creation of savings groups in the R4 Rural Resilience Initiative in Senegal, new social groups were formed and/or existing structures within communities were supported. The bonds created through the savings groups contributed to mutual solidarity in the occurrence of weather shocks and helped improve social support systems among members of the same groups.[9] This important point was also found in literature beyond climate resilience. After the 2015 earthquake in Nepal, for example, households that were part of informal savings groups were able to deal with the shock better than those who were not, despite only 23% of households reporting the use of savings after the earthquake. It emerged that the benefits of savings were more likely to be linked with the social support created by being part of a savings group, rather than with the cash.[10] On top of social capital, the literature stresses the importance of savings groups for increasing women's empowerment and autonomy[11] as well as women's increased participation in community affairs.[12]

Further, climate resilience literature stresses the importance of disaster preparedness to ensure communities are ready to face climatic shocks.[13] However, the link with savings initiatives is not always explicit and in many programs there is no intentional linking of components. **A handful of programs used savings groups as mechanisms to provide trainings or to disseminate weather warnings**. For example, in Ethiopia, Market Approaches to Resilience (MAR – BRACED) transmitted weather warnings to savings groups to plan agricultural activities and mitigate the impacts of drought or flooding, for example by keeping cattle away from flood areas or by pooling savings in an emergency fund.[14]

In our review of recent reports on the impact of COVID-19 on savings groups, we have found that savings groups have been used as platforms to disseminate health messages. The benefits of internal structures developed within savings groups in face of a climate shock can be compared to how the groups function in local communities during the COVID-19 pandemic. The Evidence Review of Women's Groups and COVID[15] found that some savings groups in the Democratic Republic of Congo, Mali and Nigeria support their communities with the help of local governments or NGOs with building hand-washing stations, raising awareness, and encouraging members to use and produce protective equipment. In Nigeria, CARE provides remote training for savings groups on COVID-19 prevention and symptoms, as well as encouraging groups to raise awareness on the virus via WhatsApp groups.[16] Given the importance of dissemination via savings groups highlighted by this case, there might be crucial insights into how savings groups can play a more central role in disaster preparedness mechanisms in the future.

[7] Bahadur et al. (2015); Jones, Ballon and von Engelhardt (2018); Weingärtner, Pichon and Simonet (2017)

[8] Cabot Venton, Prillaman and Kim (2021)

[9] Murphy, Hepworth and Verkaart (2019)

[10] Petryniak, Kurtz and Frischknecht (2015)

[11] Yaron, Dutu and Wilson (2018); Concern Worldwide (2018)

[12] Faulkner and Silva-Villanueva (2019); De Hoop et al (2020); Lovell, Twigg and Lung'ahi (2019); Evidence Consortium on Women's Groups (2021)

[13] Bahadur et al. (2015)

[14] Wilson, Vekaart and Nel (2019); Yaron, Dutu and Wilson (2018)

[15] Evidence Consortium on Women's Groups (2021)

[16] De Hoop et al. (2020)

Challenges

Personal savings are an important mechanism for coping with shocks but may not be large enough to cope with large or recurrent shocks. In some cases, savings groups struggle to pay out to all group members in need, particularly if the groups face multiple shocks or large-scale disasters.[17] For example, a study of self-help groups in Ethiopia[18] has shown that during extended periods of drought, savings groups members skipped savings cycles or dropped out as they could not contribute to the group. In one case where the majority of members were going to leave the group due to the challenges caused by the drought, the group decided to equally share the revenue from the interest accrued among members to help them cope and to retain members. Despite some challenges, participation in savings groups generally remains an important mechanism to deal with the immediate aftermath of a shock.

Questions around how effective savings are in different contexts where shocks can be of multiple nature were also highlighted during the COVID-19 pandemic. A study in Kenya and Uganda found that during the pandemic, relying on savings was the second most common coping strategy after a reduction in food consumption. Reliance on savings was particularly common among the salary-earning workers and self-employed.[19] A recent evidence review of women's groups and Covid-19 provides additional lessons learned[20].

Finally, although a link with Micro-Finance Institutions (MFIs) or other formal institutions can in theory support savings groups, the evidence we reviewed in the climate change literature did not indicate a strong link between savings groups, MFIs and disaster preparedness (see Box 2).

Box 2.Typhoon Yolanda in the Philippines

In November 2013, Typhoon Yolanda hit the Philippines, making history as the strongest ever typhoon hitting the country, destroying approximately 90% of Tacloban City on the island of Leyte. A year later, Mercy Corps commissioned a study in Western Leyte to understand the characteristics of households that contributed to disaster recovery, in particular looking at the role of formal financial services, diversified income sources and social capital.

The results of the study showed that informal savings contributed, alongside other coping strategies, to stronger recovery after the typhoon, while formal savings did not appear to be more effective for recovery. The author of the study highlights that this is potentially because of the limited access to formal savings, following the challenges related to reaching commercial banks in the direct aftermath of the typhoon. This finding shows that informal savings can be accessed more easily, hence be more effective as a recovery strategy.

[17] Leavy et al. (2018); Wilson, Yaron and Béné (2018)

[18] Weingärtner, Pichon and Simonet (2017)

[19] Kansiime et al. (2021)

[20] Evidence Consortium on Women's Groups (2021)

SAVINGS AND DISASTER PREPAREDNESS AND RESPONSE - KEY FINDINGS	
	Several programs have included savings groups as a key activity for disaster response, as they provide a buffer against the impacts of shocks on household finances and livelihoods; can fill gaps between the shock occurring and the formal response provided by governments and NGOs; and are key to ensure that individuals and/or communities do not incur additional debt as a result of weather extremes or shocks.
	Savings groups are not commonly used as a mechanism for disaster preparedness, but they could play a key role in the dissemination of early warning messages to communities and individuals.
	Savings groups help populations access intangible assets, such as social networks, which are key to ensure individuals can provide mutual support at times of crises.
	Although savings play a key part in helping individuals and communities cope with shocks, the size of savings and the frequency of shocks might affect the ability of a savings group to provide support to its members.

3.2 Savings and Climate Adaptation

Examples and Successes

The role of savings groups in climate resilience programs is most often to accrue capital to invest in income diversification activities, often through the set-up of VSLAs, RuSACCOs or SILCs.[21] Evidence from our review suggests that VSLAs, combined with basic business trainings and improved market access, help to create new income through petty trading, animal fattening and natural resource management.[22] In Ethiopia, MAR (see Box 3), set up VSLAs in agro-pastoralist communities and provided basic trainings to members of VSLAs to run micro-businesses. As a result, beneficiaries' new micro-businesses created additional income which was used to cope with long periods of drought. The income from these activities was also reinvested in the VSLAs which then communally bought animal fodder for fattening. Members of these groups were not only able to save animals from dying during periods of drought, but also to sell the livestock for a higher price.[23]

There are also examples where savings were key to help individuals make direct investments into climate smart agriculture. In Malawi, for example, farmers who were offered a savings account, which included a commitment feature,[24] increased investment in agricultural inputs and reported an increase in production of 21%.[25] However, the literature pointed out that at times there are inconsistencies between programs' expectations around climate-resilient

[21] Village Savings and Loans Associations (VSLAs); Rural Savings and Credit Cooperatives (RuSACCOs); Savings and Internal Lending Communities (SILCs)

[22] Wilson, Yaron and Béné (2018); Madajewicz, Tsegay and Lee (2017); Leavy et al. (2018)

[23] Yaron, Dutu and Wilson (2018)

[24] The commitment savings account allowed farmers to specify an amount to be transferred to the ordinary and commitment savings account and provided farmers with a release date when the bank would allow access to the funds (Brune *et al.*, 2015).

[25] Innovation for Poverty Action (2017)

investments and beneficiaries' most urgent needs during extended periods of climate insecurity. In PRESENCES (BRACED) in Niger, for example, VSLAs were provided with climate information to make informed decisions around climate-smart investments, supported by initial loans injected by the program. In reality, the majority of the VSLAs loans were used to purchase food and other immediate needs to cope with a shock instead.[26]

In some cases, savings groups are linked to other financial inclusion products, such as micro-insurance to insure livestock, and to microfinance institutions (MFIs), to prepare for disasters by increasing access to larger loans. LEAP (Linking Social and Financial Capital to Enhance Resilience of Agro-Pastoral Communities) in Mali and Senegal,[27] and PROGRESS (BRACED) in Kenya, worked with financial service providers and other actors to develop better suited financial services for agro-pastoralist communities, such as digital banking solutions, to ensure savings groups had access to formal loans after the end of the projects to increase income-diversification activities. Similarly, financial service providers are starting to develop digital platforms for financial products to provide access to savings for low-income clients.[28]

The pandemic accelerated the digitization of many savings groups. In some cases, to shorten in-person meetings, ledgers have been digitized or personal savings moved to a mobile wallet. Apart from a lower risk of transmitting the virus, this had other additional benefits such as better overview of personal savings thanks to SMS notifications or fewer human errors in ledgers leading to less group conflicts.[29] These important lessons should be considered in future programming as examples of digitalization supporting resilience strategies and savings mechanisms.

Although savings play a key role in supporting adaptation mechanisms, particularly income diversification, it is clear from the literature that they need to be linked with other interventions to be effective in strengthening adaptation. Interventions implemented by programs linked with savings to increase climate adaptation include: diversification of income streams to spread livelihood risks; adoption of climate smart technologies and innovations to reduce exposure to climate shocks; and support for market access and credit opportunities by formalizing producer groups and/or savings groups.[30] Given the complexities of resilience, these interventions should aim to build on to one another and be linked, following a logical sequencing of packages of interventions to ensure resilience is strengthened.[31]

Challenges

Although savings groups help individuals and communities diversify their livelihoods, there is some evidence that shows that savings groups often invest in climate vulnerable activities. For example, in the Partner for Resilience (PfR) project by CARE in Ethiopia, women's savings groups started planting crops and rear small ruminants to diversify their incomes. However, during the prolonged spell of drought caused by El Niño, the soil became infertile, goats and cows no longer produced milk and animals died, causing substantial losses for the group members.[32] Therefore, at times of acute climate variability, income diversification might not be able to contribute to adaptation when too closely linked with climate-dependent activities, such as agriculture, animal rearing and breeding, and short-term climate investments.

In general, savings remain too small to support people make large investments in adapting their income generating activities beyond climate dependent activities – limiting their

[26] Leavy et al. (2018)
[27] Mercy Corps (2018)
[28] Itad (2019)
[29] Arnold (2020); Munzara et al. (2020)
[30] Bahadur et al. (2015)
[31] Faulkner and Sword-Daniels (2021)
[32] Haworth et al. (2016)

options for adaptation. For example, in MAR (BRACED), the average savings were £1–£3, the evaluation of GRAD found that participating households increased their savings on average from US$12 to US$141 over the five-year project.[33] This is in line with other impact studies, that found total savings to be between US$10 and US$40 after one to two years of group membership.[34] There has also been suggestions that there has traditionally been a focus on the 'resource constraint' element of adaptation with less evidence on the other dimensions necessary for adaptation. One study suggests this is a "failure of communication" between those concerned with climate change adaptation, on the one hand, and those concerned with human agency and social decision-making processes.[35]

Box 3. BRACED – MAR (Market Approaches to Resilience), DFID, Ethiopia

The MAR[36] project, part of the DFID-funded BRACED program, was implemented in three regions of Ethiopia (Afar, Somali and the Southern Nations, Nationalities and Peoples' Region). MAR focused on strengthening climate resilience for pastoralists and agro-pastoralists, which are among the most vulnerable populations to climate change, as well as unemployed youth and women in urban areas. One of the key activities was setting up 270 VSLAs in agro-pastoralists communities to enhance climate adaptation through income diversification and linking 40 RuSACCOs with MFIs to ensure VSLAs had access to larger loans. Following that, MAR provided savings groups with trainings on basic business and financial management, and literacy on savings and lending.[37]

In the final year of the project, there was anecdotal evidence that, thanks to the savings in the VSLAs or RuSACCOs, beneficiaries were able to establish new income-generating activities such as animal fattening, petty trading and livestock trading. Through these activities, savings groups started to increase their savings and invested in the purchase of animal fodder for livestock. Thanks to the animal fodder, savings groups not only saved the animals from the drought, but were also able to sell the fattened livestock for a higher price and reinvest in the savings groups.

As a result of having access to savings, women's decision-making at the household level increased, as women were able to take out loans from the VSLAs and establish their own micro-businesses, such as sale of local drinks or coffee husks in local markets. They were also able to participate in household decisions and contribute towards household costs, such as children's school fees.[38]

[33] USAID (2017). This average is based on the mean savings amounts reported by sample households in 2012 and 2016 in four Woredas (Endamehoni, Lay Gayint, Ziway Dugda and Hawassa Zuria) in Ethiopia. Due to higher incomes and more experience with savings and credit programs, households in Endamehoni saved more money than other households and increased their savings to $325 in 2016, thereby biasing the average upwards. Averages in the other three woredas are below $104 at endline.

[34] Gash and Odell (2013)

[35] Grothmann and Patt (2005)

[36] For more information, visit the Braced website

[37] Faulkner and Silva-Villanueva (2019)

[38] Faulkner and Silva-Villanueva (2019); Yaron, Dutu and Wilson (2018)

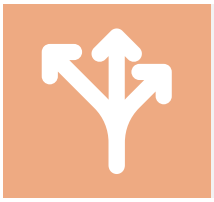
Box 4.RISE (Resilience in the Sahel Enhanced), USAID, Niger and Burkina Faso

The USAID RISE[39] Initiative in Burkina Faso and Niger brings together humanitarian and development assistance to help agro-pastoral communities and marginalized populations prepare for shocks, addressing the root causes of vulnerability. The program aimed to achieve increased and sustainable economic well-being through diversified economic opportunities with intensified production, market access, and improved access to financial services.

The project baseline survey[40] found that the most resilient households in Burkina Faso were those with diversified livelihoods, and the most resilient households in Niger engaged in a diversity of activities, including rain-fed and irrigated agriculture, animal rearing, as well as drawing on accumulated savings and remittances.

Through the savings groups set up by the program, women started to engage in new income generating activities such as petty trading and street food businesses. Women found that being a member of a savings group also increased community solidarity and social cohesion.[41] However, while beneficiaries in both countries highlighted the importance of informal community-based support to cope with shocks, the ability to share savings decreased, potentially due to the higher frequency of shocks limiting the amount of savings.

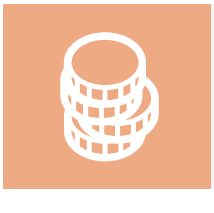
SAVINGS AND CLIMATE ADAPTATION - KEY FINDINGS



Savings are a key mechanism to support adaptation, with income diversification decreasing dependency on single livelihoods and spreading livelihood risks. However, there are challenges to consider when income diversification activities are too closely linked with climate-dependent activities.

Savings can help individuals make direct investments into climate smart agriculture, but at times beneficiaries need to meet urgent needs instead.

There are opportunities and good examples of linking saving groups with other types of financial products, such as micro-insurance or with MFIs, to ensure savings groups are prepared and can draw on multiple mechanisms to withstand shocks.



Savings initiatives are usually only able to support individuals to relatively small amounts. These are often not able to cover larger investments that could contribute more significantly to adaptation.

[39] For more information, visit the RISE website

[40] TANGO (2016)

[41] Smith et al. (2018)

4 Conclusions

The main findings from this review highlight that savings interventions play an important role in strengthening climate resilience. Below we outline some of our key conclusions and considerations for future climate resilience and financial inclusion programs.

Savings groups are key in supporting individuals in disaster response and need to be linked with other elements of resilience programming to ensure they can support climate adaptation.

The evidence from this review highlights that savings are widely used for disaster response as a stand-alone and flexible mechanism that provides a buffer in the immediate aftermath of a shock. Evidence shows that savings contribute to climate adaptation when they are embedded in broader program activities, mainly income diversification. This finding highlights the importance of streamlining activities to ensure climate resilience interventions are embedded and reinforced by all aspects of programs.

There is clear evidence that informal savings are a key mechanism for managing shocks, but there is a limit to the effectiveness when large-scale and/or prolonged shocks associated with climate change occur.

The evidence shows that savings groups' members had lower savings but were able to access them when needed and, in addition, their participation in savings groups provided members with social capital. Individuals with savings held at formal financial savings providers saved larger amounts but were less likely to access them when needed because of the logistical challenges of accessing banks during or after a shock.

Overall, evidence stresses that savings groups struggle to withstand multiple and/or recurrent shocks, posing a serious limitation to resilience building, and in particular adaptation. This is not surprising as it is in line with broader literature on the capacity of savings and savings groups to withhold shocks. Thus, it is essential for programs to ensure that savings interventions are designed to help individuals and communities to withstand multiple and large-scale shocks.

The scale of climate change and the frequency of shocks highlight the need for packages of support that help communities and individuals cope before, during and after shocks.

Programs are increasingly trying to combine savings with other financial services, such as micro-insurance, to increase climate resilience. Nevertheless, our review showed that the ready-available informal savings in some cases have played a key role in providing support during emergencies, with examples of getting the money where it is needed faster than formal mechanisms. Savings mechanisms can also be an entry point for these other services.

Further, the use of savings to support income diversification offers an opportunity to bridge the gap between preparedness and adaptation, but it is key that diversification supports a move away from climate-dependent livelihoods. Whilst income diversification activities have often been centered around livestock, joint production and similar activities, to be truly adaptive, programs need to take into consideration local climate threats to ensure income generating activities do not entirely depend on the climate.

These examples offer significant opportunities to align resilience capacities more closely. Creating a more coherent link between different activities could further support climate resilience. However, we recognize the limitations of the context in which these initiatives have been implemented.

More research is needed to continue to build the evidence base around savings and financial inclusion initiatives and climate resilience.

There is an opportunity to continue to build our understanding of best practice in the role of savings initiatives as part of programs supporting communities to build their climate resilience. There is particular opportunity in building the evidence over what combination of initiatives/services are proving to be most effective in overcoming the challenges outlined in this paper. This is particularly true of innovative programs that are not using a traditional Savings Group model where there is less evidence available. In addition, more real-time research is needed to understand the above in the context of unexpected and multiple shocks.

References

Alliance for Financial Inclusion (2019) Inclusive Green Finance: A Survey of the Policy Landscape. *AFI Special Report.*

Agrawala, S. and Carraro, M. (2010) Assessing the Role of Microfinance in Fostering Adaptation to Climate Change, *OECD Environmental Working Paper.* 15. 2010, OECD Publishing

Arnold, J. (2020) *Digitizing Savings Groups: Evidence from Tanzania Understanding the Impact of Digital Ledgers on Women's Savings Groups.* Washington, DC: The International Center for Research on Women.

Bahadur, A., Peters, K., Wilkinson, E., Pichon, F., Gray, K., Tanner, T. (2015) The 3As: Tracking Resilience Across BRACED, *BRACED Working Paper*. August 2015.

Brune, L., Gine', X., Goldberg, J. and Yang, D. (2015) Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi, *NBER Working Paper Series*. Working Paper 20946. February 2015.

Cabot Venton, C., Prillaman, SA., & Kim, J. (2021*). Building Resilience through Self Help Groups: Evidence Review*. Washington, DC: The Resilience Evaluation, Analysis, and Learning (REAL) Award.

Concern Worldwide (2018) Improving Resilience in South Sudan: Experiences and learning, *Knowledge Matters.* (21):1-40. October 2018

De Hoop, T., Desai, S., Siwach, G., Holla, C., Belyakova, Y., Paul, S. and Singh, R. (2020) Women's Groups and Covid-19 – Challenges, Engagement, and Opportunities, *Evidence Consortium on Women's Groups.* June 2020.

DFID (2014) *KPI4 Guidance*. UK: Department for International Development.

Evidence Consortium on Women's Groups (2021) Evidence Review of Women's Groups and Covid-19: Impacts, Challenges, and Policy Implications for Savings Groups in Africa. April 2021. Accessed from: https://docs.gatesfoundation.org/documents/evidence_review_of_womens_groups_and_covid19_impacts_challenges_and_policy_implications_for_savings_groups_in_africa.pdf

Faulkner, L., Silva-Villanueva, P. (2019) Routes to Resilience - Insights from BRACED to BRACED-X, *BRACED Synthesis Paper*. September 2019.

Faulkner, L., Sword-Daniels, V., (2021) Improving Resilience Measurement: Learning to adapt. Contributions from Chris Barnett and Emmeline Henderson. *Itad Practice Paper 01*. Accessed from: https://www.itad.com/wp-content/uploads/2021/03/Practice-Paper-Resilience.pdf

Gash, M. and Odell, K. (2013) *The Evidence-Based Story of Savings Groups: A Synthesis of Seven Randomized Control Trials.* Savings-led Financial Services Working Group (SEEP). Accessed from: https://seepnetwork.org/files/galleries/1206_FINAL_Evidence-Based_Savings_Web.pdf

Grothmann, T. & Patt, A. (2005). "Adaptive Capacity and Human Cognition: The Process of Individual Adaptation to Climate Change." *Global Environmental Change*, 15(3): 199-213.

Haworth, A., Frandon-Martines, C., Fayolle, V. and Wilkinson, E. (2016) Banking on Resilience: Building Capacities Through Financial Service Inclusion, *BRACED Policy Brief.* February 2016.

Hudner, D. and Kurtz, J. (2014) Do Financial Services Build Disaster Resilience? Examining the Determinants of Recovery from Typhoon Yolanda in the Philippines, *Mercy Corps Working Paper.*

Innovation for Poverty Action (2017) *Climate Change and Financial Inclusion*. Accessed from: https://www.poverty-action.org/publication/climate-change-and-financial-inclusion

Itad (2019) Increasing Resilience Through Financial Inclusion – Provider Led-Solutions from West Africa, *Savings Learning Lab Learning Brief*. Mastercard Foundation.

Jones, L., Ballon, P. and von Engelhardt, J. (2018) How Does Resilience Change Over Time? Tracking Post-Disaster Recovery, *BRACED Working Paper.* August 2018.

Kansiime, M.K., Tambo, J.A., Mugambi, I., Bundi, M., Kara, A., Owuor, C. (2021) COVID-19 Implications on Household Income and Food Security in Kenya and Uganda: Findings from a Rapid Assessment. *World Development.* 2021, January. 137. Published online.

Leavy, J., Boydell, E., McDowell, S., Sladkova, B. (2018) Resilience Results – BRACED final evaluation. *BRACED Synthesis Paper.*

Lovell, E., Twigg, J. and Lung'ahi, G. (2019) *Building Resilience for All - Intersectional Approaches for Reducing Vulnerability to Natural Hazards in Nepal and Kenya,* Overseas Development Institute.

Madajewicz, M., Tsegay, A.H. and Lee, R. (2017) *Managing Risks in Smallholder Agriculture – The Impacts of R4 on Livelihoods in Tigray, Ethiopia from 2012 to 2016*. Oxfam, September 2017.

Mercy Corps (2018) Accelerating Climate Resilience through Financial Services Innovation in Africa, *Talanoa Dialogue Input, Global Resilience Partnership.* Accessed from: https://unfccc.int/sites/default/files/resource/131_Talanoa%20Dialogue%20April%202018%20-%20Question%203%20-%20Africa%20Submission%20-%20Final.pdf

Munzara, A., Crailsheim, M., Wasson, W. and Ruan, J. (2020) *Savings Groups in the COVID Era: Creating a Resilient New Normal*. Annual Seep Conference 2020.

Murphy, B., Hepworth, C. and Verkaart, S. (2019) GRP – Examples of effective resilience programming*, Case Study, Global Resilience Programme*. September 2019.

Nazrul Islam, S. and Winkel, J. (2017) Climate Change and Social Inequality, *DESA Working Paper no.152*. October 2017.

Petryniak, O., Kurtz, J. and Frischknecht, S. (2015) *What Next for Nepal? Evidence of What Matters for Building Resilience After the Gorkha Earthquake*. Washington, DC: Mercy Corps. Available from: https://www.mercycorps.org/research-resources/whats-next-nepal

Reyd, K. (2018) *2013 Typhoon Haiyan: Facts, FAQs, and how to help.* World Vision. Accessed from: https://www.worldvision.org/disaster-relief-news-stories/2013-typhoon-haiyan-facts#typhoon-yolanda

Smith, L., Frankenberger, T., Nelson, S. and Presnall, C. (2018) *Resilience in the Sahel Enhanced (RISE) Program Impact Evaluation Midline Survey Resilience Analysis: Draft*. Produced by TANGO International and Save the Children as part of the Resilience Evaluation, Analysis and Learning (REAL) Associate Award. Accessed from: https://www.fsnnetwork.org/sites/default/files/RISE%20Midline%20Resilience%20Analysis_Report_FINAL_clean_Nov5%2718508%20Final.pdf

TANGO (2016). *Resilience in the Sahel-Enhanced (RISE) Project Impact Evaluation – Baseline Survey, Resilience Analysis.* USAID. February 2016. Accessed from: https://www.globalwaters.org/sites/default/files/Resilience_in_the_Sahel-Enhanced_Project_Impact_Evaluation_Baseline_Survey_v1.pdf

UNISDR (2005) *International Strategy for Disaster Reduction. Terminology: Basic Terms of Disaster Risk Reduction.* [webpage] Accessed from:

https://www.eird.org/eng/terminologia-eng.htm#:~:text=Resilience%20%2F%20resilient,level%20of%20functioning%20and%20structure

USAID (2017) *Final Performance Evaluation – Graduation with Resilience to Achieve Sustainable Development (GRAD) Activity*. March 2017. Accessed from: https://www.careevaluations.org/wp-content/uploads/GRAD-Final-Evaluation-Report_for-Submission-01-05.pdf

Weingärtner, L., Pichon, F. and Simonet, C. (2017) How Self-Help Groups Strengthen Resilience - A Study on Tearfund's Approach to Tackling Food Insecurity in Protracted Crises in Ethiopia, *Overseas Development Institute Report*, June 2017.

Wilson, D., Yaron, G. and Béné, C. (2018) Evaluating the Results of BRACED Projects in Ethiopia, Myanmar and Niger, *BRACED Working Paper*. Accessed from: https://www.itad.com/wp-content/uploads/2020/02/Impact-Evaluation-Working-Paper-WEB-1.pdf

Wilson, D., Vekaart, S. and Nel, D. (2019) Resilience Insights – Lessons from the Global Resilience partnership*, Global Resilience Partnership Report*. September 2019. Accessed from: http://grpinsightsreport.info/wp-content/uploads/2019/10/GRP_Resilience_Insights_Report.pdf

Yaron, G., Dutu, A. and Wilson, D. (2018) The Market-Based Approach to Resilience in Ethiopia: Qualitative Evidence from South Omo, *BRACED Report*. Accessed from: https://www.itad.com/knowledge-product/the-market-based-approach-to-resilience-in-ethiopia-qualitative-evidence-from-south-omo/

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Itad.com @ItadLtd mail@itad.com

Itad Ltd
Preece House, Davigdor Road, Hove, East Sussex, BN3 1RE, UK

+44(0)1273 765 250

Itad Inc
1110 Vermont Ave NW, Suite 500, Washington, D.C 20005, USA

Tel: +1 (301) 814-1492