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SCALE
Strengthening Capacity in Agriculture Livelihoods and Environment

Best Practices: Cascading Resilient Agriculture Approaches within Food Security Programs

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About SCALE

SCALE (Strengthening Capacity in Agriculture, Livelihoods, and Environment) is an initiative funded by USAID's Bureau for Humanitarian Assistance (BHA) and implemented by Mercy Corps in collaboration with Save the Children. SCALE aims to enhance the impact, sustainability and scalability of BHA-funded agriculture, natural resource management, and off-farm livelihood activities in emergency and non-emergency contexts.

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Background

Technical staff in USAID/Bureau for Humanitarian Assistance (BHA)-funded food security programs often employ a cascaded training of trainers (ToT) approach to reach large numbers of community members. However, evidence from midterm and final evaluations of Resilience Food Security Activities (RFSAs) points to a number of limitations and shortcomings when employing a cascade training approach. In particular, technical understanding can diminish at every training level.

> *"The training (cascade) approach used, which involves various layers of training of trainers, has likely diminished the transfer of technical capacities to field agents and affected the quality of gardening activities. In general, field agents demonstrated deficiencies in their understanding of the approach, with some having inadequate capacity to supervise activities effectively, convey technically sound messages, and address false rumors."*
> *– Respondent from the IMPEL midterm and final evaluations review*

Resilient agriculture approaches, which seek to strengthen the resilience of farmers and their farming systems to environmental and economic shocks and stresses, do not use a prescribed set of techniques and require a different cascading approach for quality to be maintained at scale. The Resilience Design in Smallholder Farming Systems Approach and the Permagarden Approach, for example, both require practitioners to develop skills in observation, assessment and analysis, design, and monitoring and adaptation over time. Whether applied to a small-scale garden or a larger farm plot, these approaches encourage farmers and those who support them to think differently about agricultural development and identify ways to work with natural systems rather than against them.

Further, USAID's Global Food Security Strategy (GFSS) for 2022-2026 focuses on the interconnected objectives of:

- Inclusive and sustainable agriculture-led economic growth that increases access and availability to nutritious food and creates sustainable entrepreneurship opportunities;
- Strengthening resilience among people and systems that lifts communities from entrenched poverty and combats intense shocks and stresses; and
- A well-nourished population, especially among women and children.

The strategy highlights the need to address the short- and long-term effects of climate change that can undermine agricultural practices, labor, and livestock, with an emphasis on locally led solutions. Resilient agriculture approaches directly address each of these critical elements and provide implementing partners with the tools needed to meet the challenges of this moment.

This document presents a set of best practices for BHA-funded program staff to consider when cascading resilient agriculture approaches to partner organizations, agricultural extension staff, and farming communities. The practices are based on RFSA evaluations and incorporate past learning on adaptive management, mentorship, and the use of demonstration sites, as well as adult learning principles and social and behavior change studies. Staff are encouraged to apply these best practices when cascading resilient agriculture interventions, whether at the garden- or the field-level. The best practices presented here can be used to support a range of agricultural activities, such as those targeting nutrition and food security, environmental regeneration, or income generation.

Best Practices

BHA-funded program staff should consider these practices when cascading resilient agriculture approaches to partner organizations, agricultural extension staff and farming communities.

Take a Farmer-led approach to Resilient Agriculture by learning from local solutions and adaptations and co-developing training.

Secure Community and Local Partner Buy-in to enhance the project's potential for long-term success.

Engage the Right Mix of Expertise in the Training Process so that the skill sets possessed by the trainers encompass all aspects of the resilient agriculture approach.

Provide Mentorship, Coaching, and Refresher Trainings to reinforce the concepts used in resilient agriculture approaches and provide opportunities to deepen skill sets.

Encourage Farmer-to-Farmer Sharing of successes as a way to inspire farmers, encourage collaborative problem solving, and highlight examples of locally appropriate adaptations.

Use Demonstration Sites to best communicate the productivity gains that can be attained by using a resilient agriculture approach.

Consistently Reinforce Minimum Standards through Monitoring Visits that demonstrate the importance of continuous observation and adaption, and provide opportunities for staff and farmers to problem solve together.

Budget for Resilient Agriculture Activities to ensure that adequate time, staff resources, and funding is dedicated to consistent, high-quality implementation roll out and cascading.

Detailed Descriptions of Best Practices

Take a Farmer-led Approach to Resilient Agriculture

Resilient agriculture approaches are systems-based and are most successful when implemented through an iterative process of observation followed by adaptation. They also rely on incorporating insights gained through engaging indigenous knowledge of local environments, farming systems, and resources. Training on these approaches often requires a mindset change, not only for farmers but also for project staff, local partners, and community leaders.

If program or extension staff are accustomed to lecture-based trainings and top-down technology transfer models, they may find it difficult to move to a process of co-developing solutions based on farmer expertise. The cascade training model itself even implies that knowledge is generated at the top of the pyramid and then is "transferred" level by level until it reaches the lowest level, which is usually community members. However, resilient agriculture approaches rely on using farmer knowledge and experience to generate context-appropriate solutions. This means that, rather than cascading a set of technical principles solely in a top-down direction, **resilient agriculture training sessions welcome knowledge exchange in all directions - simultaneously cascading key technical principles while also using participatory training approaches that bring out participant knowledge.**

Conducting formative research and developing a Social and Behavior Change (SBC) strategy are a few steps programs can take to understand the enabling factors and barriers to adopting new behaviors. SBC is a process of engaging individuals and communities in ways that motivate them to adopt and sustain desired behaviors. It does so by first identifying the various factors that influence people's behaviors and then addressing them with approaches that are most likely to be effective. SBC helps program staff understand how different individuals think about a problem, the enablers and barriers that make it easier or harder for them to practice a behavior, and how their household aspirations influence their decision-making process. Incorporating SBC enables teams to better understand nuances within local contexts, such as identifying how staff at various levels may feel about an issue and how this differs from farmers in a target community. The Make Me a Change Agent training is one resource that can help establish the core skills essential to SBC roll out within program teams. Through using SBC approaches, program teams can gain a deeper understanding of local contexts, household aspirations and pain points, which are central to facilitating the mindset shift needed to successfully cascade resilient agriculture practices.

> *"CRS's learning around agriculture and SBC found that implementing teams were generally unaware of adult learning principles and methods, and preferred to use a lecture format during training. CRS found that prior training and mentoring in facilitating discussion and demonstration was key to success in rolling out new agriculture techniques." - Introducing Social Behavior Change to Agricultural Development, CRS*

Further Reading on this Topic

Make Me a Change Agent: An SBC Resource for WASH, Agriculture, and Livelihoods Activities

Introducing Social Behavior Change to Agricultural Development

Triggering Change: Five Pivotal Moments in Permagarden & Resilience Design Training

Secure Community and Local Partner Buy-in

Resilient agriculture approaches rely on early community engagement, community visioning, and an understanding of community aspirations to set realistic goals and design for impact. Involving a wide range of relevant local actors as the project implements and cascades its resilient agriculture approach can enhance a project's potential for long-term success. Local partners can include public or private sector extension agents, government officials, community organizations, and other local leaders. **Involving these actors in decision-making around the establishment of demonstration sites, training schedules, and the prioritization of activities can lead to new insights and their continued involvement in the project.** During this initial engagement, it is critical to ensure local stakeholders are meaningfully engaged in the design of project activities, so they can see the value of a participatory and collaborative innovation process. During this phase, it is also important to engage farmers in the process to emphasize the role of farmer knowledge in developing resilient agriculture solutions and help shift the mindset of all actors away from a top-down, information dissemination approach.

Photo Credit: Kristin Lambert

Increase community buy-in by identifying influencers and innovators who can inspire other community members to adopt new practices. Influencers and innovators help spur the essential process of testing, iterating, and adapting practices to local conditions. These actors can also be consulted early on to help shape project activities and approaches.

Further Reading on this Topic

Resilience Design in Smallholder Farming Systems Approach (Step 1: Site Assessment, Community Engagement)

Resilience Design Facilitator's Guide (Forthcoming!)

Engage the Right Mix of Expertise in the Training Process

Cascading a resilient agriculture approach requires trainers with more than just agriculture expertise; it requires trainers with facilitation and participatory training skills and an awareness of the local context and environment. As a result, it is more effective to have two or more trainers with complementary skill sets conducting a training. For example, a trainer with expertise in water harvesting can be paired with one who specializes in community engagement and crop production. Additionally, pairing regional and local training teams can broaden the skill sets and perspectives present on a training team. Including local resilient agriculture champions on the training team helps program teams uncover context-appropriate techniques, new adaptations, and innovations, which can strengthen the uptake and impact of resilient agriculture practices.

Keep in mind that participatory trainings that incorporate experiential training methodologies require more effort from trainers than lecture-based trainings. Having multiple trainers present allows for more effective small group work and facilitated discussions.

Further Reading on this Topic

The Tropical Permaculture Guidebook

Twelve Principles for Effective Adult Learning

A Guide to Co-training in Face-to-Face Programs

Photo Credit: Kristin Lambert

Provide Mentorship, Coaching, and Refresher Trainings

Investing in refresher trainings and ongoing mentorship opportunities can greatly reinforce resilient agriculture concepts. **The process of ongoing mentorship and coaching helps both program staff and community members navigate challenges as they emerge, and share successes along the way.** There are, however, relational, process, and technological considerations to keep in mind when implementing a mentorship program.

Photo Credit: Thomas Cole

Mentoring, coaching, and refresher training efforts should start early—ideally within a few months of the initial training sessions—and should be maintained throughout the implementation period. Program staff can be connected to like-minded communities of practice, training resources, and online learning opportunities to continue to build skills and a network with other resilient agriculture practitioners. When planning a mentorship program, keep the process as simple as possible so the mentorship engagement does not stall due to competing time demands or administrative burdens. For successful mentorship, mentors and mentees must be equipped with the tools they need to easily connect (e.g., adequate Wifi, cellphone data, transportation if conducted in person, etc.) and time to invest in the process of relationship building.

Further Reading on this Topic

Resilience Design Mentorship Pilot: Approach, Findings, and Lessons Learned

Coaching and Mentoring in Agricultural Value Chains

Encourage Farmer-to-Farmer Sharing

Cascade trainings can benefit significantly by showcasing examples of successful efforts by farmers, particularly those in similar agroecological contexts. This can be accomplished in a number of different ways. A simple method can be to share videos, photos, and other media in training sessions. This includes "before and after" photos of actual sites to help participants concretely see the possibilities of resilient agriculture approaches. **Visual evidence of degraded and barren sites that have been transformed in a season or two can inspire and instill an early enthusiasm for trialing new techniques.**

Another method is to incorporate cross-site visits into a training program. This is an excellent time to engage influencers and innovators in the process by inviting them to host a training group and share their challenges, adaptations, and successes. Cross-site visits can be repeated at any point in the season to troubleshoot challenges or problems together. During a farmer training, it is also good practice to encourage farmers to collaborate when establishing their individual plots. By rotating between homesteads and helping each participant dig their household plot, farmers gain a wealth of experience problem solving and applying the techniques in different contexts. This has the added benefit of helping achieve scale while maintaining community ownership of the process.

Further Reading on this Topic

The Tropical Permaculture Guidebook

Make Me a Change Agent: An SBC Resource for WASH, Agriculture, and Livelihoods Activities (Lesson 7: Learning through Cross-site Visits)

Photo Credit: Thomas Cole

Use Demonstration Sites

Demonstration sites are a valuable tool to improve farmers' knowledge on how to apply resilient agriculture techniques, increase adoption, and engage the broader community. Program teams can use demonstration sites for hands-on activities and cross-site visits (see above). More broadly, these sites illustrate resilient agriculture approaches and their potential outcomes to a range of different stakeholders, including national and private extension agents, government officials, and local leaders. However, they must be established in a way that facilitates these outcomes.

When selecting a site for a demonstration site, program staff may gravitate towards land with good soil and access to water. Program staff may also be inclined to work with lead farmers or prominent community members with whom they have existing relationships. Nevertheless, **a demonstration site is most effective at illustrating the benefits of a resilient agriculture approach if it shows that the approach can be used by anyone in the community to transform an unproductive landscape into a productive one. I**t will do little to change the mindsets of farmers, program staff, and other project stakeholders to see a prime plot of land producing an abundance of crops.

For this reason, demonstration sites should be established on land that is representative of the land accessible to the community members. Most often, this is best accomplished by establishing a demonstration site at a training participant's home, with the participant themselves managing the site.

When selecting demonstration sites, consider:

- Proximity to target households so that the site can also serve as a training site where community members can learn and practice the techniques together before replicating them at their own households;
- Social connections and reputation of the selected farmer (i.e., are they well-respected?);
- Motivation of the selected farmer to address soil, water and productivity problems on their farm; and
- The presence of several distinguishable "problems" that are persistent throughout the community and that many agree are a priority to solve.

An additional note is to establish the demonstration site when it is seasonally appropriate, in order to increase the relevance of the exercise for participants. Resilient agriculture techniques can be very challenging to establish during the height of the dry season when soils are hard, a factor that may limit household uptake. Resilient agriculture demonstration sites can be established during the early weeks of the rainy season to avoid this. Partner training and community engagement should therefore begin 4-6 weeks prior to site establishment. Program teams should plan their activities with the seasonality in mind but remain flexible since agricultural seasons are increasingly unpredictable.

Further Reading on this Topic

Improving the Management of Agriculture Demonstration Sites in Food Security Programs

Consistently Reinforce Minimum Standards through Monitoring Visits

Photo Credit: Thomas Cole

Frequent, regular monitoring visits are an important feature of successful resilient agriculture interventions and are particularly critical in the early stages of a newly established plot. These visits help ensure the plots meet the minimum standards of a resiliently designed agricultural plot, while also serving as an important touchstone between participants and program staff. Once plots become more established, those visits may become slightly less frequent. However, **the process of observation and adaptation is one that continues for the lifespan of the plot and is an important skill to convey during a cascade training program.**

Site monitoring visits can be conducted jointly with households to help build observation and adaptation skills and may be aided by the use of a monitoring checklist that determines where improvements can be made. One such set of tools, the Permagarden Checklist, the Resilience Design Checklist, and accompanying minimum standards, are aids that can be used to troubleshoot site problems and make adjustments to improve productivity. Each checklist begins with a section on how to train communities to use the checklist, re-emphasizing the importance of encouraging community member agency in the decision-making process.

New programs also present the opportunity to contribute to the growing body of knowledge and evidence around the impact of resilient agricultural approaches. It is recommended that program teams articulate key learning objectives around the intervention and incorporate the appropriate impact indicators into their monitoring plan.

Further Reading on this Topic

Resilience Design in Smallholder Farming Systems Approach: Checklist & Guidance

Resilience Design for Agroecological Production: Minimum Standards

Permagarden: Technical Checklist & Guidance

Budget for Resilient Agriculture Activities

As touched on in the preceding sections, successfully cascading resilient agriculture practices differs from training on more conventional gardening or agriculture approaches; some of **these differences have budget implications.**

Photo Credit: Kristin Lambert

Activities to consider in your budget include:

- Conducting a barrier analysis and creating an SBC strategy in support of farmer adoption and uptake;
- Make Me a Change Agent training for project staff and partners focused on effective communication, facilitation and negotiation;
- 5-day resilient agriculture ToT for project staff and partners;
- Site selection and community aspirations/visioning process;
- Risk assessments for each target community, identifying risk factors, elements that could go wrong and adjusting site selection/targeting as needed;
- 3-day training at demonstration sites for target households;
- Monthly monitoring visits conducted jointly with households;
- Adequate staff time and logistics budget to cover mentorship and technical support/troubleshooting visits, as well as peer-to-peer learning activities such as cross-site visits;
- Impact measurement; and
- Permaculture certification course for program lead (suggested).

Further Reading on this Topic

Adaptive Thinking in Agriculture & Natural Resource Management

Resilience Design in Smallholder Farming Systems Approach

TOPS Permagarden Toolkit

Photo Credit: Rudy Nkombo

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