Climate-Resilient Agriculture Webinar Series: Reflections and Resource Launch

Webinar 2: Resource launch





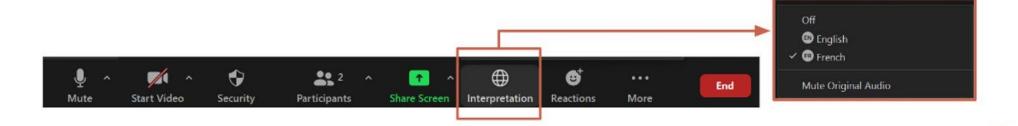


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Session Agenda	1	Welcome & Introductions
	2	Resource Launch: Permagarden and Resilience Design Tools and Guidance Materials
	3	Practical Aspects of Using the Tools
	4	Facilitated Learning Opportunity
	5	Reflections from an RD Training
	6	Q & A

Today's Presenters



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PRO-WASH & SCALE
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Resource Launch

Permagarden and Resilience Design Tools and Guidance Materials







Permagarden Approach

- Used to build intensive household gardens
- Nutrition and income goals
- Participatory approach that engages whole household
- Emphasis on living soils, banked water in soils, and building biodiversity
- Integration of household waste and use of local resources



Resilience Design

- Used to stabilize hydrology and build natural resources across a household compound or landscape
- Community-level engagement
- Create food forests that provide year-round production
- Mitigate impacts of droughts and floods across landscape





PRO-WASH & SCALE Team and Consultants



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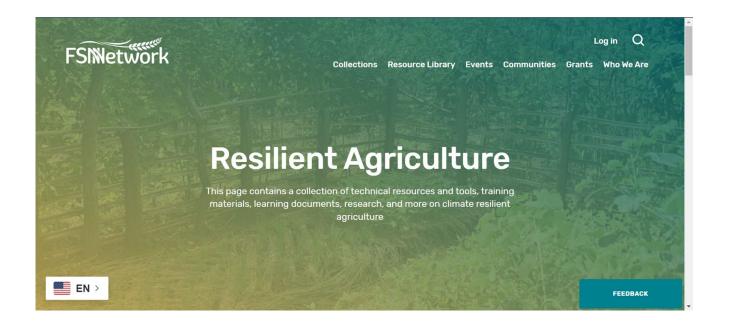
Elin Duby

Resilience Design & Social

Process Consultant

FSNNetwork

https://www.fsnnetwork.org /SCALE/Resilient-Agriculture



Resilience Design

Resilience Design (RD) in Smallholder Farming Systems is an approach that helps farmers and those who support them better understand their farming systems within their agroecosystems. Guided by a set of principles, farmers can develop a more integrated site design in relationship to their unique community and surrounding natural systems by identifying influences that affect their farms sites as well as external resources that can benefit the site. Farmers then adjust their farm design, ultimately building a more adaptive and productive farming system that is more resilient to the increasingly frequent and intense environmental and economic shocks and stresses that affect it.

- RD Technical Resources and Tools
- RD Training Materials
- Additional RD Resources

Permagardens

EN >

EEDBACK

Proposal

Integrating
 Permagarden
 Approach: A Tip
 Sheet for Programs

Implementation

- Permagarden Technical Manual 3rd Edition
- Permagarden
 Foundations e Course
- 3-Day Permagarden Training: 2nd Edition
- Resilience Design Facilitators Guide

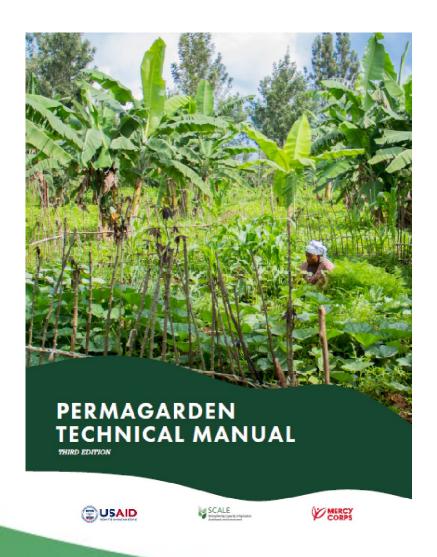
Monitoring

 Determining The Success of Your Permagarden: Permagarden Monitoring and Evaluation Tools

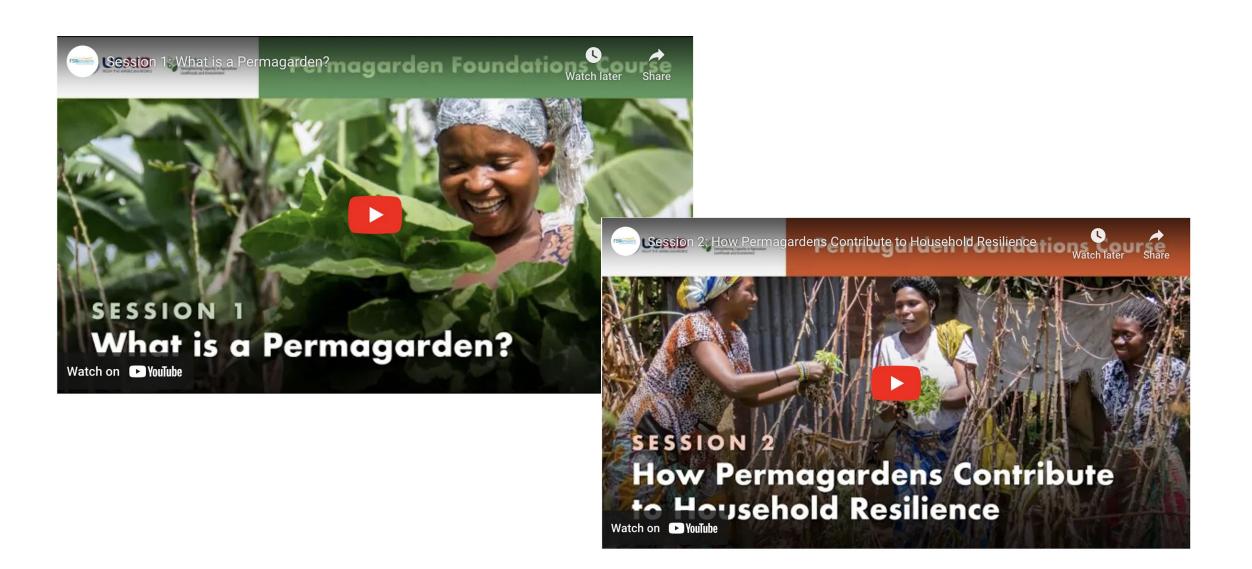
Learning

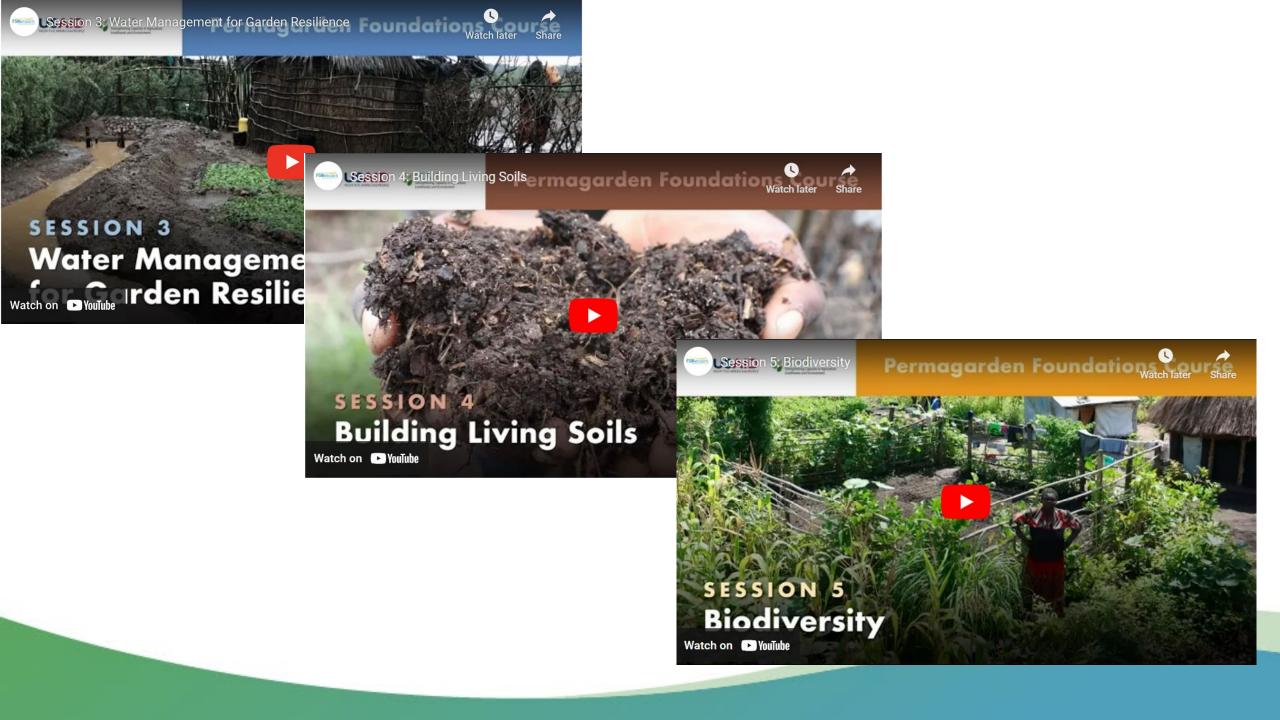
- How Permagardens and Kitchen Gardens Contribute to Household Food Security: An Assessment of Gardens in Nepal
- The Permagarden Pathway to Resilience & Food Security: Lessons in Scaling Up from Nepal and Uganda
- Assessment of the "Hill Approach": a Resilient Agriculture Food Security Project in DRC
- Resilience Design for Water and Landscapes: The Story of The Sponge Village of Atego

Permagarden Technical Manual and E-course







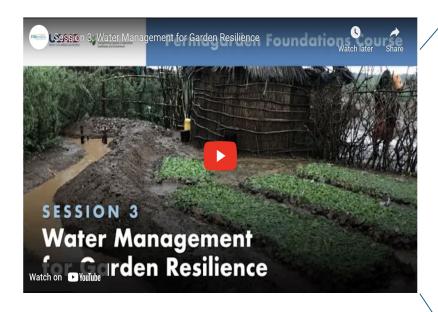


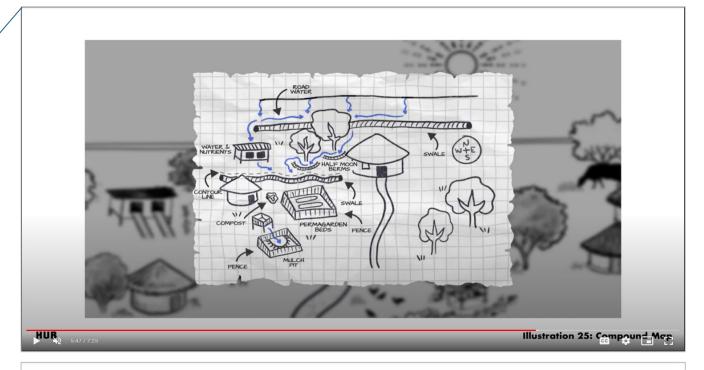


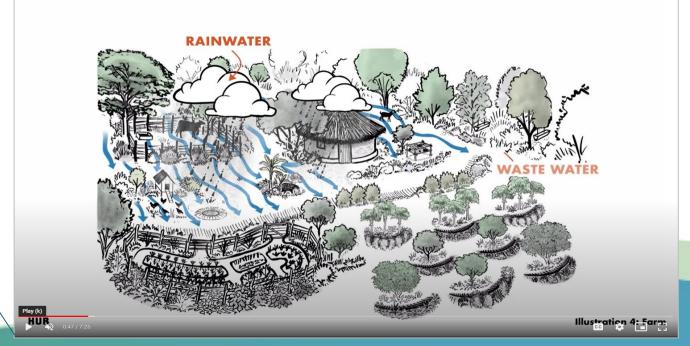












Permagarden Technical Manual, 3rd edition



The Permagarden Approach

What is the Permagarden Approach?	5		
Goals of the Permagarden Approach	8		
Permagarden Minimum Standards	9		
Scaling up with Resilience Design	10		



Building Blocks of a Permagarden: Water, Soil, and Biodiversity

Waler Maliagement	12
Soil Management	23
Increasing Biodiversity	30



Four Steps to Developing and Maintaining a Permagarden

A Four-Step Process	37		
Observe	38		
Design	43		
Implement	48		
Monitoring and Feedback	55		
Considerations in Emergency Contexts	58		



Minimum Standards Checklist

Resilience Design Checklist

Location:

Transect #1

DESIGN: Site has a context-specific design that optimizes resources and external influences.																					
2. WATER: Site has water harvesting strategies to slow, spread, sink and manage water.																					
3. SOIL HEALTH: Site creates a soil food web that supports sustained production and growth.																					
4. BIODIVERSITY: Site has diversity of plant, tree and animal species that work																					
together to support overall	3.		3. 9	OIL HEALTH. Site creates a healthy soil food web that supports sustained production and growth.																	
health and production. 5. PROTECTION: Site's soil and plants are protected from any negative effects		✓.	- a	No soil improvement strategies. No compost pit. Beds shallow (<40 cm) and off-contour, with 0–1 soil amendments. No mulch. Farmer only uses inorganic fertilizers or pesticides. Plants show visible stress. Brix reading is below average for the specific crops.																	
of people, animals, insects, disease, and other external influences.			Some use of soil improvement strategies. Compost pit filled with organic materials from regular sweeping of compound. Trees in compound mulched. Animal droppings placed into tree basins. Beds on contour and >40 cm deep. 2-4 soil amendments used. Mulch present. Farmer has single biofertilizer strategy (e.g., compost teas to fertilize crops). Brix reading is average for the specific crops.									and >40									
			✓.	Multiple, separate pits in compound for trash and organic materials. Compost soil used in permagarden beds and tree basins. Beds > 50 cm in depth with +5 soil amendments. Top 10cm of beds fertilized with compost before each planting. Shade structures protect plants and water. Area mostly mulched. Farmer practices intercropping and crop rotation. Farmer makes their own liquid biofertilizers. Brix reading above average for the specific crops.																	
			*	6	ensur applie	e ade	quat Itiple	e moi fertil	sture izer s	, witł strate	n food	d scra (foliar	ps, ki feed	tcher	n was	te an	d org	anic r	natei	ater harvesting structui rials regularly added. Fa f mulch materials). Brix	rmer





Resilience Design Training Facilitator Guide



D1. Building and calibrating an A-frame

Why is this activity important?

This exercise introduces farmers to an A-frame, which is a tool that helps find the contours hidden from our eyes within the landscape. A-frames can be constructed by farmers using locally sourced materials. This exercise equips farmers with an easy-to-use tool that can help them manage water and protect soil on their

Learning objectives	Participants will be able to • Construct and calibrate an A-frame						
Time	60 minutes						
Tools and Training Materials	bamboo to make – Strips of used rub – 50–100g of nails	frames x Scm (or thinner) pieces of lumber, branches, or an Aframe for each group of 4–5 participants. ber from the inner tube of car or bike tires seimum of 10m (no lumpoulane cather than intel). STEP 3. Introduce the activity: • We have seen that RD farmers are at					
Preparation Needed	Practice making an A Gather all the materi	When we did the sponge demonstra landscape belos as slow spread, and					

Facilitator Instructions

STEP 1. Begin the session by asking participants what Encourage a diversity of voices to share. Make sure the

- Resilience is the ability to 'bounce back' from a three RD farmers make sure the needs of their crops (food)
- When we carefully assess our landscape, we can fin These resources help us meet the needs of our crops

STEP 2. Check in with farmers about the landscape ana

- Ask a few volunteers to share something specific they · What did you notice about water and nutrient flows
- · Did you notice areas on your farm that are more exp
- Are there places on your farm that are protected fro What kind of protection is that?

· We have seen that RD farmers are able to save water in their soil so their crops can us . When we did the sponge demonstration exercise, we saw how digging ditches that follows landscape helps us slow, spread, and sink water into our soils. (If possible, inspect the

60

• It is impossible to see contours on our own, so we need a tool called an A-frame to help contour is on the land. A-frames are made with locally available materials.

STEP 4. Go through the materials with the participants. Ask participants where they can find each material locally. Model how to put the A-frame together.

squares done previously for any residual moisture.)

STEP 5. Divide participants into groups and give each group 30 minutes to construct an A-frame.

STEP 6. Demonstrate how to calibrate an A-frame in front of the group and then ask participants to get back into their groups to calibrate their own A-frames.

STEP 7. Conclude the activity by telling participants that the next activity will be using the A-frame to practice marking the contour lines. These will be important for informing us where to place earthworks in the farm design.

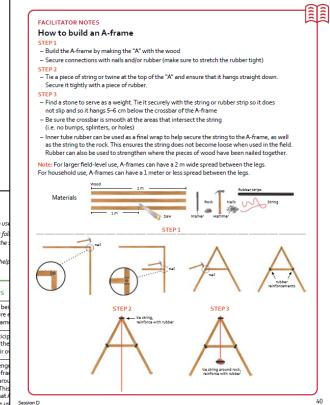
FACILITATION TIPS

As the A-frames are be walk around to ensure constructing their fram

Make sure each partici where they can find the A-frame around their

If time allows, challeng to make a second A-fra materials they find aro (sticks, rocks, etc.). Thi reinforce the idea that not need to be made us materials

RD Facilitator's Guide



Session Overview

Every farm is different and needs its own design to become more resilient. In this session, participants will learn a set of questions that will guide them as they plan what earthworks they will use. Using a simple tool called an A-frame, participants will learn about the concept of "on contour" and how working with contours can slow, spread, and sink water on their farms. Participants will then practice building three primary kinds of earthwork structures on the demonstration farm.



Learning Objectives

Participants will be able to..

- 1. Build and calibrate an A-frame
- 2. Understand the concept of "on contour"
- 3. Plan the earthworks design for a site using six design questions
- 4. Survey and mark contours within the landscape and dig three primary kinds of earthworks

Sess	sion D Activities	Activities Methodology Tools and Training Materials						
D1	Building and calibrating an A-frame							
D2	Understanding contours and using earthworks to control erosion and slow, spread, sink, and manage water	Demonstration + Discussion	A-frames Pegging materials Hoes Shovels	40 mins	42			
D3	Planning the earthworks design	Discussion + Walk	Flipchart and markers	30 mins	44			
D4	Creating an earthworks design map	Discussion	Flipchart and markers Maps of the demonstration farm from Session C	60 mins	46			
D5	Marking out the earthworks design by surveying and pegging	Practical activity	A-frames constructed in D1 Pegging materials	45 mins	48			
D6	Constructing earthworks	Practical activity	A-frames constructed in D1 Shovels Hoes Mulching materials	1–2 hours	50			

Session D

Additional Resources for Program Teams





Integrating Permagarden Approach:

A Tip Sheet for Programs



Incorporating Permagarden Approach into your next proposal

November 2022



Determining the Success of Your Permagarden

PERMAGARDEN MONITORING AND EVALUATION TOOLS



Program staff often promote permagardens as a means to boost household income, nutrition and other outcomes, but how can they know if these gardens are having the desired effects? This document is intended to guide program staff in monitoring and evaluating the permagarden component of a project. It contains helpful tips and reminders for how to conduct Focus Group Discussions (FGDs) and surveys with project participants. It also includes example data collection tools that can be modified to suit the desired learning questions and project environment.

CONDUCTING A FOCUS GROUP DISCUSSION

WHY CONDUCT AN FGD

An FGD can be a fast and convenient way to collect qualitative data to better understand how a project is progressing or why certain outcomes have occurred. The information collected from an FGD is best used to understand why something is happening or how people feel about a particular course of events. This can often be a valuable complement to the quantitative information gathered from a survey.

When deciding whether or not to do an FGD as part of your M&E process, first discuss with your team what they want to learn, and then formulate the learning question, or set of questions, that will guide your data collection process. At this point it is possible to decide whether an FGD is appropriate or not. FGDs are best for answering learning questions that seek to better understand the factors or conditions responsible for a behavior,

outcome or social norm. These questions often contain the word "why" or "how come."

PROCESS FOR CONDUCTING AN FGD1

WHO: In addition to carefully selecting the FGD questions, think about who it is important to collect information from. Different participant types can each offer a unique perspective. Examples of participant types include: female, male, or youth participants; extension workers; market chain actors; local officials; and other project stakeholders. You may also consider conducting FGDs with non-participants in order to compare their circumstances and opinions with those of participants. Consider also the best way to group participants so that existing power dynamics or gender norms do not prevent certain voices from being heard. It may be necessary to have women-only FGDs or to hold separate discussions with local officials so that participants can speak freely about their experiences. For convenience, M&E staff often organize FGDs so they are composed of people who live close to each other and have done project activities together; however, participants may be more inspired to share personal information and sensitive opinions if they do not know each other. For this reason, consider organizing FGDs with participants who have not completed the program together. By conducting FGDs with a variety of actors, more insights can be collected that will help answer the learning questions.

Before holding any FGDs, it is important to review the informed consent procedures required by your institution or project partners. It might be necessary to get verbal or written consent from participants before collecting

Krueger, R. (2002). Designing and Conducting Focus Group Interviews. University of Minnesota. https://www.eiu.edu/ihec/Krueger-FocusGroupInterviews.ps





Using PG Checklists: FSP Experience

Itoskit ITAMBWE

Livelihoods Team Leader FSP-ENYANYA





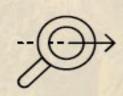






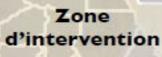






Objectifs





Rép. Dém. du Congo





USAID – BHA Bureau d'aide humanitaire

OBJECTIFS

Améliorer
la sécurité alimentaire
et nutritionnelle et le
bien-être économique
des ménages vulnérables
du Sud-Kivu

51,660 ménages

24 aires de santé

Territoire de Kabare : Zone de santé de Miti-Murhesa et Katana

Territoire de Kalehe : Zone de santé de Kalehe

Objectif I : Développement de l'agriculture et des systèmes de marché

Accroître le revenu des ménages vulnérables malgrés l'exposition aux chocs et aux contraintes

Objectif 2 : Santé, nutrition et Wash

Améliorer l'état nutritionnel des enfants < 5 ans, des femmes enceintes, allaitantes et en âge de procréer

Objectif 3: Gouvernance locale

Soutenir les initiatives locales en faveur de la stabilité et du développement pérenne et inclusif

Genre Jeunesse



(Changement social

et comportemental)

Volet transversaux



Permagarden Activities



Objective: improve the nutritional status of pregnant and breastfeeding women and women with children under 5 **Intervention Strategy** - Permagarden

Phase 2:

PSP model for Permagarden Extension Agents and their connection to agrodealers
Promotion of traditional, nutritious and drought-resistant seed varieties

❖ Total number of permagardens installed: 23,917/4,679 spontaneous.

Examples of PG Checklists developed by FSP

B	Productive Practices
1	Les jardins bien installés et adaptés
2	La replantation dans les jardins de case [les plate-bandes bien préparées, le niveau bien mesuré, bonne plantation]
3	Une clôture adéquate pour protéger le jardin contre les animaux
4	Les matières vivantes de protection plantées dans la clôture
5	Les matières vivantes plantées dans la clôture sont bien gérées et entretenues
6	Le double creusage des plate-bandes bien fait avec enrichissement du sol
7	L'utilisation des matières enrichissantes locales [la bouse, le compost, la cendre, les os, les charbons, les feuilles vertes et les feuilles mortes]
8	L'utilisation du paillage pour protéger les plate-bandes et les contours [des feuilles mortes, feuilles vertes, herbes vertes et sèches]

C: Suivi des résultats

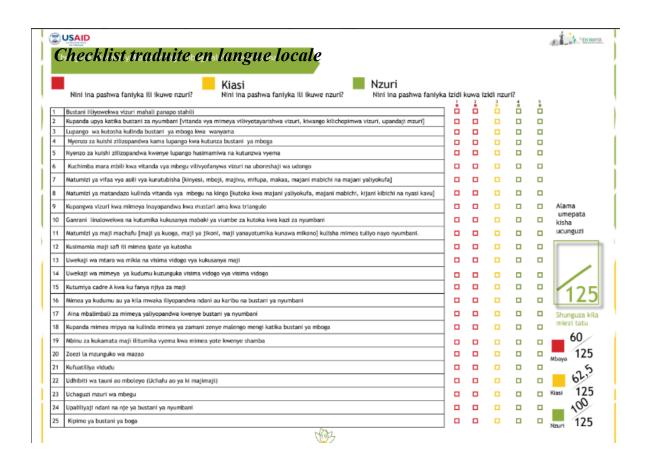
Nombre de pratiques productives observées [sur 25]

Index de points (score standardisé de 0 à 100)

Pendant les derniers 7 jours, combien de jours la famille a-t-elle consommée des produits du jardin ?

Quel montant cette famille a-t-elle obtenu après la vente des produits du permagarden du mois passé ? Veuillez mettre zéro si la famille n'a rien vendue.

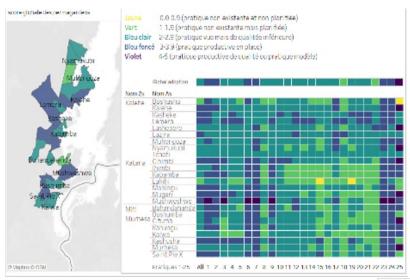
Interpretation of Results



- Data collected monthly and digitized with the COMMCARE application by the program team
- Quarterly analyses by the MEAL team and shared with the program team
- Dashboard visualization and assessment of data evolution
- Feedback to permagarden extension agents and development of action plans with AEPs

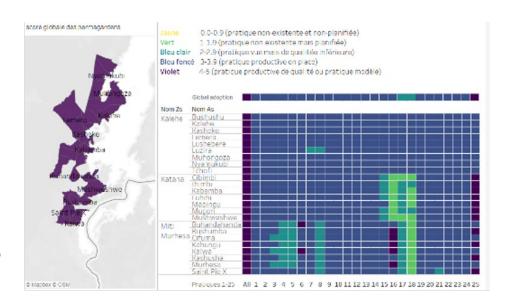
Results Dashboard

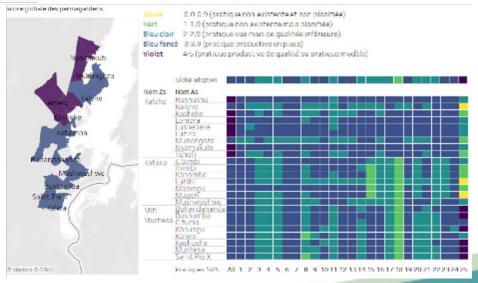
Vue globale Dashboard Permagarden Y4



Vue globale Dashboard Permagarden Y5

Vue globale Dashboard Permagarden Y6





Permagarden Results - January 2021



Family food diversification: 99% of participants declared that their diet and that of their household were more diversified thanks to the production of their permagardens



Fewer cases of anaemia and fewer consultation visits for children



More savings and investment within households: selling produce, saving on vegetables, and reducing healthcare costs

Participants invest their savings in income generating activities or VSLAs



Social impact: part of the harvest is donated to neighbors and relatives, strengthening the bonds of community solidarity.

Challenges, Successes and Lessons Learned

Lessons Learned

- Inclusion: Involvement of all household members, especially men
- Local seeds are preferred
- Define clear, quality monitoring using PG checklists.

Challenges

Limited access to
 water was seen as an
 obstacle to permanent
 vegetable production
 in some areas,
 especially during the
 dry season

Successes

- Understanding participants' nutritional and commercial interests before introducing PGs
- Spontaneous permagardens in the area (4,679 in 8 quarters)



Merci.

Facilitated Learning Opportunity











Facilitated Learning Opportunity

- Sign up sheets circulating early next year through our newsletter
- BHA and non-BHA funded projects eligible
- Open to interested individuals (with supervisor support) and multiple team members
- English and French options



Facilitated Learning Opportunity

Course Outline

The Permagarden Foundations Course includes 9 sessions:

- Session 1: What is a Permagarden?
- Session 2: How Permagardens Contribute to Household Resilience
- Session 3: Water Management for Garden Resilience
- Session 4: Building Living Soils
- Session 5: Biodiversity
- Session 6: Developing and Maintaining a Permagarden, Step 1: Observe
- Session 7: Developing and Maintaining a Permagarden, Step 2: Design
- Session 8: Developing and Maintaining a Permagarden, Step 3: Implement
- Session 9: Developing and Maintaining a Permagarden, Step 4: Monitor



In-person visits depending on interest



Join us!

Website:

www.fsnnetwork.org/prowashandscale

Email: prowashandscale@savechildren.org









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Reflections from an RD Training

Masasa Makwassa, WFP Tanzania









Q & A

Thank you! | Merci

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