

Gender-transformative decision-making on agricultural technologies:

Participatory tools



Written by:

Cathy Rozel Farnworth, Gundula Fischer, Amon Chinyophiro, Elirehema Swai, Zamaradi Said, Jacqueline Rugalabam, Elienza Mshana, Zakia Athumani, John Nnko, Regis Chikowo, Roseby Namagowa, Abigail Mkwapatira, Tunganeghe Kapenda, Andrew Namakhoma and Hannah Livuza

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Nnko⁶, Regis Chikowo⁷, Roseby Namagowa⁸, Abigail Mkwapatira⁸, Tunganeghe
Kapenda⁸, Andrew Namakhoma³, and Hannah Livuza²

¹ Pandia Consulting

² International Institute of Tropical Agriculture (IITA)

³ Meramo Consulting

⁴ Tanzania Agricultural Research Institute (TARI)

⁵ University of Dodoma

⁶ LEAD Foundation

⁷ Michigan State University (MSU)

⁸ Independent consultant

The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three regional projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads the program's monitoring, evaluation and impact assessment.

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FARMERS' VOICES

“We thought about taking the Gender Balance Tree and planting it in our house so it can grow. We will share it with our neighbors and other households. It may have many benefits: if we cooperate in different activities, we can never fail in income generation. It also creates peace and more affection.”

MAN PARTICIPANT

“Many times, they call us individually (for extension training). Example, if I had come alone, I couldn't have fully explained to my partner what I have learned. But since we came together, we learned something together and we have grown from where we were. We hope this continues and we get another chance like this.”

WOMAN PARTICIPANT

“My relationship has improved after attending that training. Because before, I was a person who didn't want to listen when it comes to decisions.”

MAN PARTICIPANT

”

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We also thank Chiwamba village in Malawi for explaining to the research team how they have implemented Gender Action Learning Systems (GALS) since 2013, and we thank two trainers from Chiwamba who later provided training and the opportunity for discussion to participating farmers in Malawi.

Thank you also to Rebecca Morahan who thoughtfully reviewed an earlier draft of the manual.

Foreword

“African farmers are increasingly using innovative approaches and scientific research outputs, combined with traditional knowledge, to improve the productivity of their fields, diversify their crops, boost their nutrition, and build climate resilience”⁹, said the FAO Director-General Qu Dongyu in April 2022. However, Dongyu concludes that these innovation processes must speed up to reach the Sustainable Development Goals (SDGs). Gender transformation and reduced inequalities are core SDGs that drive the achievement of other goals, including zero hunger and no poverty.

Recognizing and considering the decisive role of gender aspects in sustainable agricultural development has been a key focus of Africa Research for Sustainable Intensification for the Next Generation (Africa RISING) West and East and Southern Africa projects since their inception in 2011. Gender transformation and reduced inequalities are core SDGs that drive the achievement of other goals, including zero hunger and no poverty. As a project, we therefore implemented a wide range of gender-sensitive research for development activities in Malawi, Tanzania, Zambia, Ghana, and Mali. Our work in these countries has generated several scientifically validated agricultural innovations, allowing farmers, extension agents, development practitioners, and policymakers to select the ones they require depending on their interests, needs, and socioeconomic, geographic, and climatic contexts.

More often than not, women’s voice in farm household decision-making on the agricultural innovations to experiment, adapt, or adopt is weak and, in some cases, completely lacking. This is to the detriment of the women themselves and often the whole household and can result in limited uptake of new technologies. A workshop-based training format that allows farmers to combine technical learning with reflections on gender issues is needed to ensure that everyone benefits from agricultural innovations. As a result, in 2020, we entrusted the Africa RISING Gender Lead to develop a detailed manual for reference by agricultural extension services, NGOs, researchers, and others working closely with farmers.

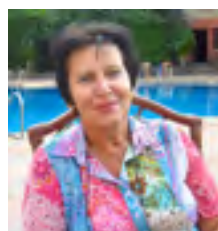
This manual is one of a series of gender-related manuals and other outputs published by Africa RISING. It shows trainers how to link agricultural innovations with a shift towards more balanced gender relations in farming households. It was created in close collaboration with biophysical and social scientists and development partners in Malawi, Tanzania, and internationally. The team brought rich and diverse expertise to the table, including developing tools for gender transformation, rolling out gender training events, and agricultural experimentation with farmers. The manual was elaborated and piloted in rural communities of Malawi and Tanzania in 2021. The team benefited from robust farmer feedback on the tools. They - and the fieldwork team - deserve our respect and gratitude for their achievement.

We are convinced that workshops following the format described in this manual will uniquely contribute to initiating and strengthening fair and inclusive decision-making processes in farm households and improve technology adoption. The language of the manual and the step-by-step instructions and illustrations make it an easily understandable and usable document for farmer groups, development practitioners, and scientists alike.



Fred Kizito

Manager, Africa RISING West Africa and East/Southern Africa Projects Alliance of Bioversity and CIAT/ International Institute of Tropical Agriculture



Irmgard Hoeschle-Zeledon

Former Manager, Africa RISING West Africa and East/Southern Africa Projects International Institute of Tropical Agriculture

⁹ <https://www.un.org/africarenewal/magazine/april-2022/africa%E2%80%99s-new-harvest-transform-agriculture-we-must-speed-innovations-and>

PART 1

PRACTICE – USING THE TOOLS



About this manual

Who is it for?

This Africa RISING manual is aimed at government extension departments – and other development partners including NGOs, civil society groups, and private sector organizations – working with farmers on the introduction of new agricultural technologies. The ultimate users of the tools are farmers themselves. Farmers are expected to master the tools and to share them with other farmers in a peer replication process. The manual may also be used by development organizations for participatory research and development processes.

Following the instructions in this self-taught guide, facilitators can learn about these participatory tools before sharing them with farmers.

Why do we need decision-making tools?

Farmers are learning about new technologies all the time. Some farmers adopt them successfully, and may continue to adapt the technologies in their own way. Others may feel under pressure to adopt, even if they are not sure whether the technology is relevant to their needs.

Women are not always meaningfully involved in decision-making about whether or not to adopt technologies. There is evidence that new technologies can create a lot of work for women and children, and their benefits are not distributed equitably between household members (Theis et al., 2018). As a consequence, adoption of new technologies may ultimately be unsuccessful.

This manual provides women and men farmers with decision-making tools to help them experiment with technologies. These tools, developed from the Gender Action Learning Systems (GALS) tools described in Part 2, offer farmers ways to think about their own situation to help them decide if a specific technology really is suitable for them and their farm. The tools help farmers to assess their challenges and find ways to address them, and to identify opportunities and develop ways to build on them.

The aim of these decision-making tools is to help farmers themselves decide what is best for them. If, having used the tools to assess a technology, they decide not to go ahead, that is an important and valuable outcome. Or, having used the tools, they may find themselves able to put into place the conditions necessary for successful experimentation with the technology. Both outcomes are equally desirable.

This Africa RISING manual provides a suite of gender-transformative tools to help farmers embark on the decision-making process. The tools create spaces for discussions that enable farmers to create the conditions for women to have an effective and respected voice in decision-making processes in the home and in the field.



Setting up

Select the technology

The support organization selects a relevant technology to work with. It should be:

- an effective technology that has already brought benefits to some communities in the target area (“exposed villages”)
- not yet known by some communities in the target area (“non-exposed villages”).

This manual uses the example of a soil and water conservation technology called tied ridges (sometimes known as box ridges) just to help facilitators understand the process of using the tools. The selected technology could be a livestock technology such as an improved breed of dairy cow, a crop technology like improved beans, or any other kind of technology.

Select the host communities

We suggest a three-day participatory workshop program in two villages, A and B (Figure 1).

- Village A does not know about the new technology yet. It is a non-exposed village. Village A participants will be introduced to the new technology on day 1, and will conduct a field visit to farms using the new technology in Village B on day 2.
- Village B has learned about the new technology and applied it effectively. It is an exposed village. Village B participants will host training on the new technology on their farms for Village A participants as part of a peer learning process.

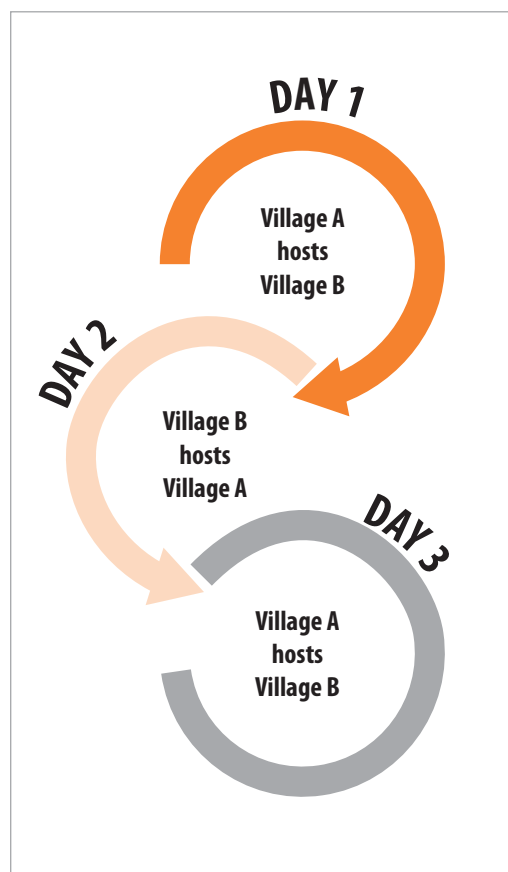


Figure 1: Peer learning process of Villages A and B

When deciding which village to select as Village A, it is important to make sure that they have the same basic resources to support the new technology as Village B. Resources may include – for a livestock technology – sufficient water, materials to build livestock housing, and so on.

Village A needs to be far enough from Village B to ensure they have not learned about the technology already. At the same time, they need to be close enough to enable farmers from both villages to travel to each other’s villages during the three-day training program. An ideal distance could be 10 to 15 km apart. The facilitator will need to work with selected partners (extension services, NGOs, etc.) to decide which villages to work with.

Selecting villages that are quite close together also ensures that the farmers share the same cultural norms (such as matrilineality or patrilineality), agro-ecological zones, and other descriptors as far as possible. This enables more effective farmer-to-farmer training during the workshops, as tools are used to collectively analyze shared cultural norms. It will be important to achieve consensus on what these cultural and gender norms are in order to create action plans.

Later, farmers will be able to train other farmers in different communities that may have different cultural norms. The tools are fully adaptable to analyzing different cultural norms in other locations.

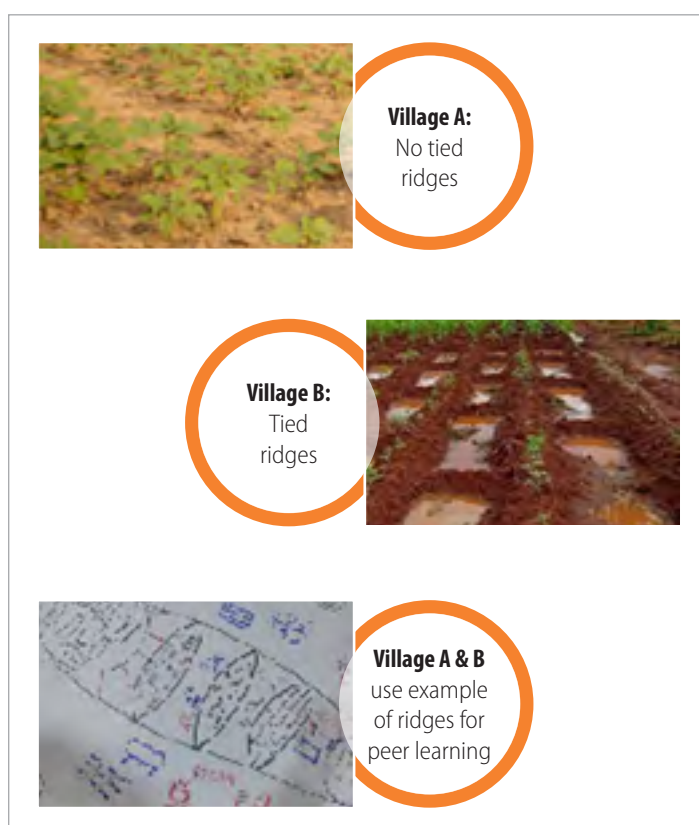


Figure 2: Technology exchange of Villages A and B using example of tied ridges

Select the participants

Purposive sampling is important. A purposive sample is where a researcher selects a sample based on their knowledge about the study and population.

Households must be willing to participate. They must be fully informed of the time commitment required (three days).

It is important to start small as the learning processes are intensive. In our example, seven households from each village are selected. Facilitators may want to work with fewer households, or a few more. Two people from each household are invited.

Two sets of seven households should be selected, one set from each village. In Village B, these must be households which have already been exposed to the selected technology. They should include:

- couple households, inviting both husband and wife to attend
- at least one woman-headed household, also inviting an adult child or another adult of either gender from the same household.

More woman-headed households can be invited if possible, as it is important that they do not feel marginalized in the larger group.

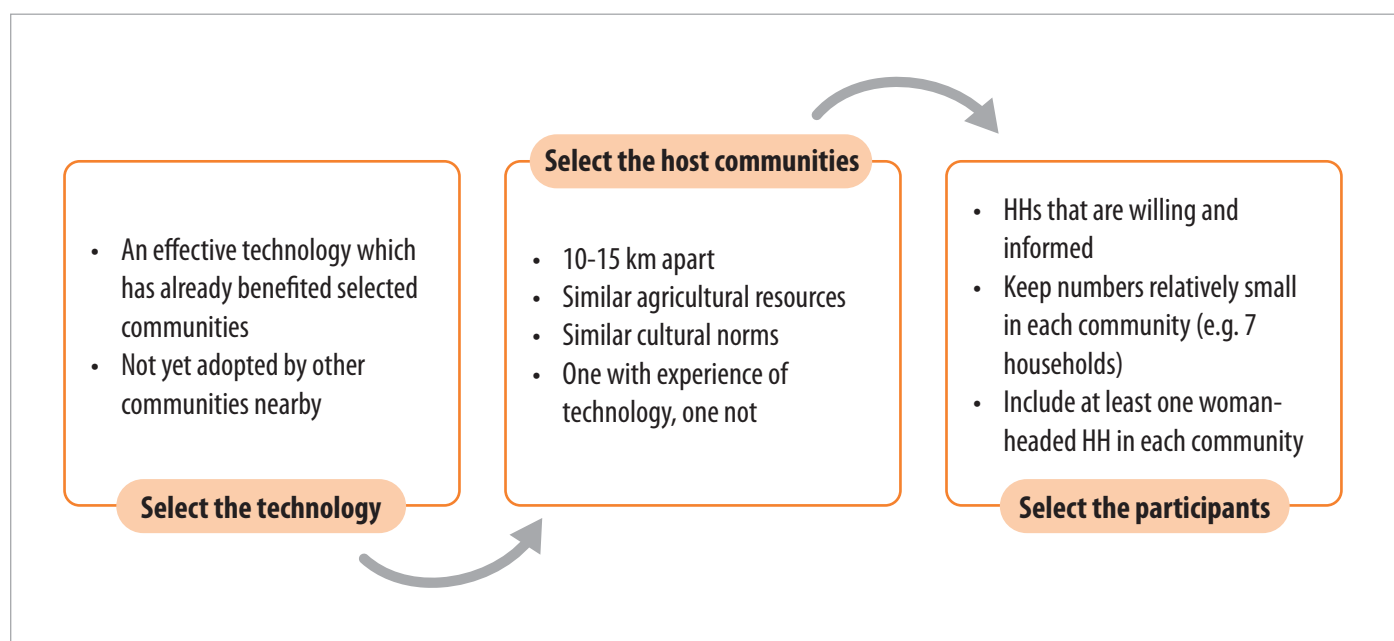
In the example (Table 1) this results in the participation of 14 households and 28 participating farmers. There will be a minimum of 14 women (one each per household) and a minimum of 12 men (one per couple household).



Table 1: Example of selected participants

Village	Number of husband-and-wife couples	Number of woman-headed households	Total households	Total women	Total men
A	6	1	7	7 (or 8)	6 (or 7)
B	6	1	7	7 (or 8)	6 (or 7)
Total	12	2	14	14 (16)	12 (14)

The selection process is summarized in Figure 3.

**Figure 3:** Summary of selection steps

Use the tools in sequence

The tools are carefully sequenced to build a learning trajectory. The aim is to open up a space for farmers to start thinking about how gender issues affect their ability to adopt new technologies successfully. The farmers gradually deepen their understanding of their gender challenges, and – of fundamental importance – how to overcome these challenges and make the most of their opportunities. These opportunities lie within their power at the household level, and some opportunities can be mobilized at the community level. The tools show how all this can happen. Figure 4 shows how the tools relate to each other.

Day 1 combines gender and social transformation tools with peer learning processes. It opens with the Symbols Game, which introduces the participants to each other through drawing simple symbols representing an aspect of themselves. This helps the participants to start thinking about themselves and their identities, and is a great icebreaker. The second tool, the Gender Balance Tree, allows farmers to start thinking about the ways in which women and men contribute wealth – through paid and unpaid work – to the household; the benefits women and men obtain from their contributions; and how they spend the money household members earn. The participants from Village A are also briefed on the new technology by an extension worker. This information provides Village A participants with an opportunity to think about the technical and social questions they want to ask Village B participants when they visit their fields on day 2.

Day 2 focuses on peer learning processes before moving to tools for socio-technical transformation. The day begins with field visits and a discussion of the learning points. It continues with the Technology Challenge Action Tree, which shows how to identify and overcome challenges to technology adoption at all levels.

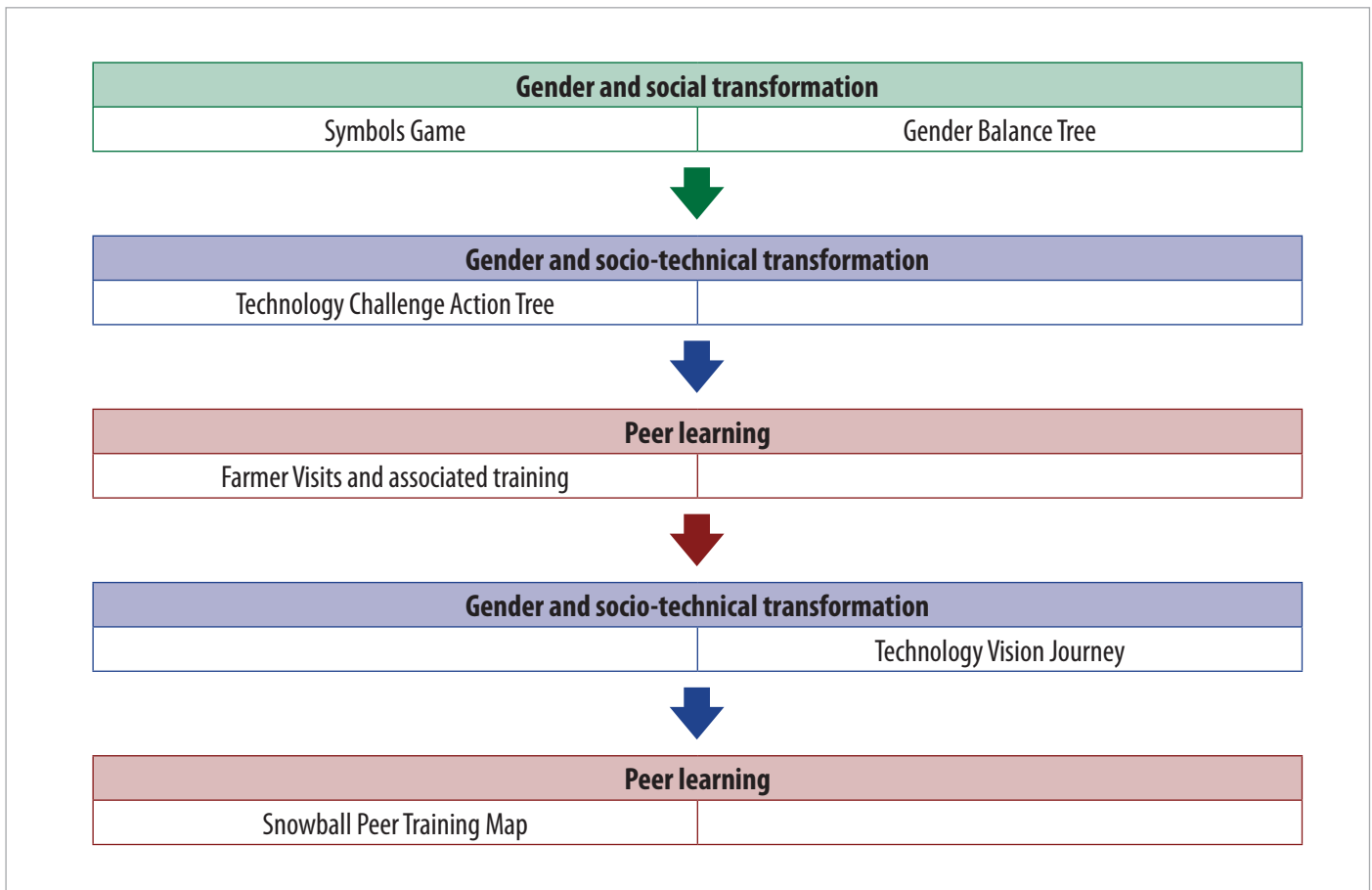


Figure 4: The tools are sequenced to build a learning trajectory

Day 3 continues the socio-technical transformation theme by introducing another tool, the Technology Vision Journey. This allows participants to outline their vision for what successful adoption will look like. It provides them with a toolbox to plan how to reach their vision. The training concludes with another peer learning tool, the Snowball Peer Training Map. This tool promotes scaling of the new technology (and other technologies) through farmer-to-farmer peer training in the tools they have learned over the past three days.

Allow time to capture the tools

It is important that the participants learn the tools together. They are given A4 notebooks to help them capture their learning process, and they must leave the training course with a clean version of each tool in the back of their notebook. They can refer to this clean version to help them create their individual household tools at home, and when training others. At the end of each session, the facilitator must allow enough time and make sure that each participant has copied the basic tool correctly into their notebook.



Practicing the tools

These notes are addressed to facilitators.

The tools in this manual are highly participatory. There are many short steps to make sure that participants are involved as much as possible. You will learn these steps very quickly, and in a short time you will be able to train farmers in the tools smoothly and well. In turn, the farmers will also train others.

We recommend that you practice each tool by yourself/with your colleagues, before introducing it to farmers.

The bottom line – empowering women

The focus is on empowering women to speak and participate actively. This is expected to also empower men and the whole family, as well as women.

It is essential to make sure that women participate equally to men. Experience shows this is possible in almost all situations. If it is difficult at the beginning, find small ways to be inclusive, build women's courage gently, and encourage men to make space. There are some examples below, and you can also draw on your own experience. Clapping and celebrating every volunteer and acknowledging each contribution is important.

Make sure you involve as many participants as possible. Don't rely on the same volunteers all the time. Ask other people to volunteer so that in the end most people have volunteered.

Drawing

These tools rely exclusively on drawing. This makes them accessible and easy to use for everyone. Using drawings helps create a shared language around which everyone can gather and discuss their insights and ideas.

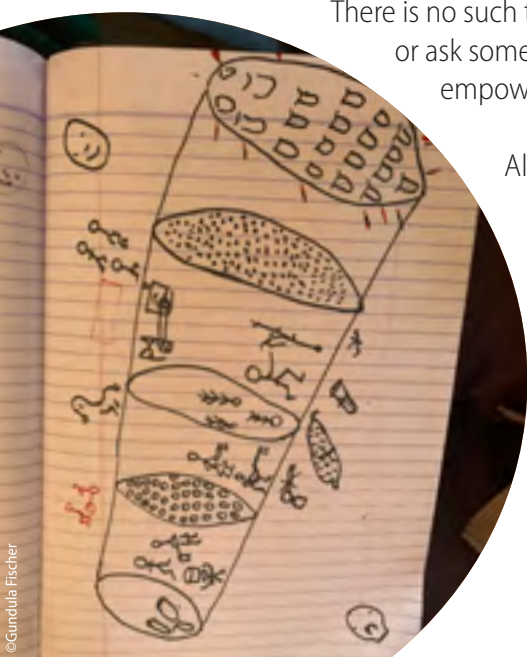
The participants are given notebooks, pencils, and colored pens to help them capture their learning process.

It is important that participants have as much power as possible during the training. They will be asked to draw symbols representing their work, expenditures, assets, opportunities, and constraints. They will also draw symbols representing women, men, the household, and the community. It is up to the participants to select and explain the symbols they want to use. Once these symbols have been agreed by the group, the same symbols should be used consistently in all group exercises. Participants can use their own symbols at home if they prefer, but they should stick with the commonly agreed symbols when training others in the tools.

There is no such thing as a “bad drawing”. It is vital that you do not try to “improve” a drawing, or ask someone else to do a better version. Never dismiss a drawing. Be encouraging. Be empowering!

Although all the tools could be completed using a black pen, we recommend using black, red, blue, and green as this is very powerful in showing gender roles, responsibilities, assets, and benefits (Figure 5). The colors have the same meaning in nearly all the tools in this manual (apart from the Snowball Peer Replication Tool).

Provide the participants with A4 notebooks, pens in the four colors (biros are fine, but not flipchart markers which can be difficult to use), also a pencil, rubber, and pencil sharpener each. Remind the participants that later they will probably need to source their own materials.



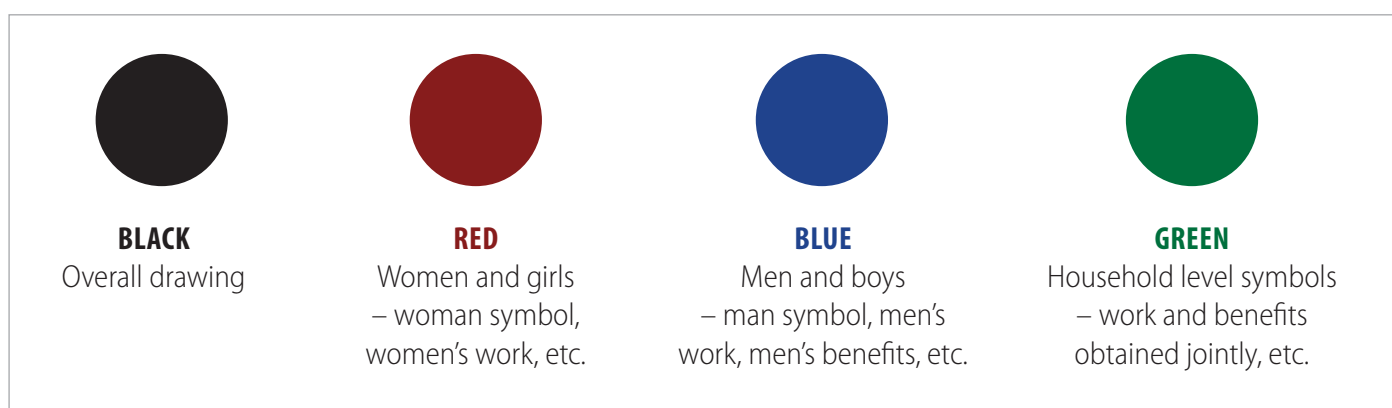


Figure 5: The colors and their meanings

Tips for facilitators

Create a warm, welcoming atmosphere from the start, and every day.

- Encourage people in the host village to welcome those from the guest village through a song, dance, or other form of welcome when they arrive.
- Incorporate energizers into the schedule, and ask people to contribute their own energizers as well.
- Make sure that everyone has delicious food at lunch, snacks, and drinks.
- Agree ground rules with everyone. This may include turning off mobile phones, listening attentively to each other, encouraging diverse points of view as there is always something new to learn, letting women speak first ...

Celebrate everyone’s participation. All the tools require volunteer participation. It’s important to create a safe, welcoming space so that everyone has the opportunity to contribute.

- Ask everyone to clap or cheer someone who has come up to the front to make a drawing.
- Don’t criticize the drawing.
- Gently support someone who has come forward and seems nervous, for example by standing near them, smiling, and using encouraging words.
- Don’t force shy people to come to the front if they aren’t ready. Perhaps they can help in a different way, for example by helping you with flipchart paper, or handing out drinks or stationery. However, don’t forget them – they may feel more confident on day 2 and be willing to participate.
- Make sure that as many different people as possible volunteer. Avoid relying on the same two or three volunteers.

Promote group learning and sharing.

- Use diverse seating arrangements, pair work, and other forms of talking and learning together.
- For most of the tools in this manual, it’s preferable for women and men to sit in separate groups. This permits deep sharing on gender roles and norms and helps to boost confidence, particularly women’s, in expressing views. Gender-specific groups help participants from different villages to communicate freely with each other. They strengthen women-to-women learning, and men-to-men learning. Experienced facilitators may also want to experiment with additional forms of discussion, such as mixed gender groups, or married couples seated together.
- Because some people find it difficult to speak in larger groups, participants should discuss issues in pairs or small groups.
- Arrange group seating prior to starting each activity. Ensure that there is clear access to the front of the room for all participants to come up and draw on the group diagrams.
- For each tool, encourage people to sit next to someone different, and ideally someone they don’t know (well). When an activity calls for group discussion, encourage people to discuss in pairs, or threes, or bigger groups – whatever suits them.

Encourage an atmosphere of respect for everyone's views.

- Show interest in each person's ideas and experiences, and probe for more information as necessary, including from participants whose view seems to differ from everyone else's in the group.
- Encourage people to share ideas freely with each other.
- Good facilitation is never about demonstrating your own knowledge of a subject.

Be neutral.

- Do not show whether or not you agree with someone.
- A positive or negative response will shape how someone continues to talk to you and the rest of the group. This can bias the discussion, and lead to results that are not meaningful for the participants.

Hand over the stick. Empowerment is about handing over power to others.

- As a facilitator, you need to be in charge of the overall program. Explain the tools carefully. Ensure that everyone is participating in their own way.
- Avoid too much teaching or lecturing, and avoid too much speaking from the front.
- Encourage participants to be active, to come up and draw in their own way, and to explain their ideas as they choose. Encourage them to face the participants when they speak. In no time, shyer participants gain confidence when encouraged and supported.
- Never draw on someone's behalf, or allow another participant to draw on someone else's drawing. The moment you take the pen, the symbol belongs to you and no longer belongs to them. This is very disempowering because the message the person will take away is that they aren't good enough. They may give up drawing altogether – but to use the tools successfully, it is necessary to draw.
- The important thing is that their drawing means something to them, and is their own drawing. Empowerment is much more important than a good drawing!

Celebrate and empower women. Women often have less voice in their community and home.

- Help women to participate actively by ensuring they speak in every exercise.
- Make sure (unless there is really strong cultural resistance) that women volunteer as often as men. Specifically, ask for women volunteers 50% of the time (for example by alternating women and men volunteers).
- Ask women to contribute first so that their voice is heard, and so that they have the opportunity to say something new.
- You can explain your reasoning to the group – let's hear women!

Link the technology to gender.

- Ask participants about their personal experiences with learning about, using, and adapting technologies, and the costs/benefits to them individually.
- Draw out from this how local gender norms may affect their access to and use of a specific technology:
 - How do women, and how do men, contribute to adopting the technology? What do they do? Is this a good thing in terms of the results obtained?
 - How do women, and how do men, benefit (or lose out) from the innovation? Why do they benefit or lose out? Is this a good thing?

Recognize that women and men farmers also introduce their own innovations, or modify innovations to make them work better.

- Encourage farmers to share their own innovations and modifications.
- Encourage participants to learn from each other by asking questions and discussing their own use of the technologies.

Ready, steady, go!

Get ready ...

Before you start:

- Make sure you have carefully followed the first two sections in this manual (Setting up; Practicing the tools).
- Practice each tool on your own! This is really important. Go through every step in the tool, making sure you understand each one.
- Think about how you will present each step. There is space at the end of each section in this manual for you to make notes on how to facilitate, and for your observations and experiences.

Get steady ...

At the training venue:

- Make sure everything you need is set out neatly close to hand.
- Ask someone to help you prepare.
- It's fine to refer to this manual during the exercises. You don't need to memorize it.
- Nearly all these tools require a flipchart. Put up the flipchart before you start the exercise. You may need to put it on the wall using tape, or place the flipchart stand where everyone can see it well. It's a good idea to use two or four pieces of flipchart paper for each tool (stuck together with masking tape) so that everyone can see easily.
- Provide every participant with stationery.

Materials checklist

Facilitator:

- ☐ Flipchart paper
- ☐ Masking tape and/or flipchart stand
- ☐ Flipchart pens (red, blue, black, green)
- ☐ Sticky notes

Each participant:

- ☐ Four pens (biros: red, blue, black, green)
- ☐ One pencil, rubber, and sharpener
- ☐ A4 notebook



Go!

The training program is based around a series of workshops and field visits held alternately in Village A and Village B.

The training starts in Village A on day 1. It moves to Village B on day 2, and concludes in Village A on day 3.

The training starts at 09.00 and concludes around 15.30 each day. It's important to offer snacks and drinks during the day, and to provide an excellent lunch.

Transport should be provided between Villages A and B to bring participants to the relevant village each day – together and on time – and take them home again. It is also necessary to transport all the participants to the fields (or nearby) of Village B participants on day 2.

Sample timetable

This proposed workshop schedule can be adapted as necessary. Start times will depend on the local situation. Allow some flexibility in timings during the day to make sure everyone has time to understand, discuss, and record the tools properly.

Day	Time	Exercise	Location
Day 1	09.00	Village B participants arrive in Village A Registration, drinks, snacks, greeting song or similar (by Village A)	Village A
	09.30	Tool 1. Symbols Game	
	10.30	Tool 2. Gender Balance Tree	
	12.30	Lunch	
	13.30	Village B participants leave	
	13.45	Village A participants only. Tool 3. Technical Briefing and Questions for Tomorrow (visit to Village B)	
	14.30	Finish	
Day 2	09.00	Village A participants arrive in Village B Registration, drinks, snacks, greeting song or similar (by Village B)	Village B
	09.30	Village B participants each take one couple/woman-headed household to their farm. The hosts show the technology in action. The visitors ask questions freely: those prepared during Tool 3 the previous day, and any other questions	
	11.30	Feedback on visit, key learning points about each question	
	12.30	Lunch	
	13.30	Tool 4. Technology Challenge Action Tree	
	15.30	Finish	
Day 3	09.00	Village B participants arrive in Village A Registration, drinks, snacks, greeting song or similar (by Village A)	Village A
	09.30	Tool 5. Technology Vision Journey	
	11.30	Lunch	
	12.30	Tool 6. Snowball Peer Training Map	
	13.30	Wrap up	



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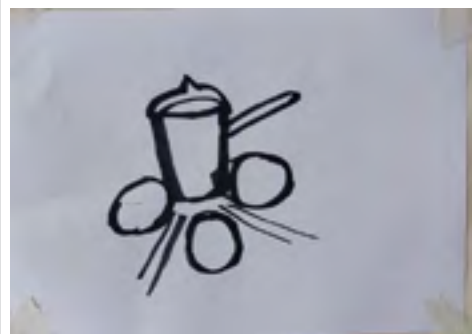
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14.30	Finish	

Note: Start timings will depend on the local situation. Allow some flexibility in the timings during the day to make sure that everyone has time to understand, discuss, and record the tools properly.

TOOL 1

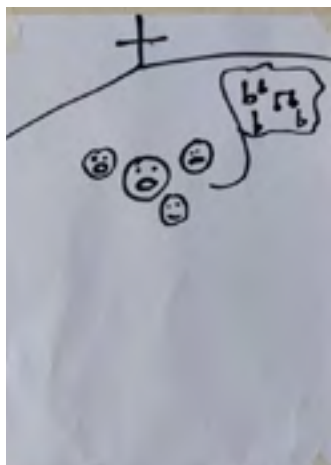
Symbols Game



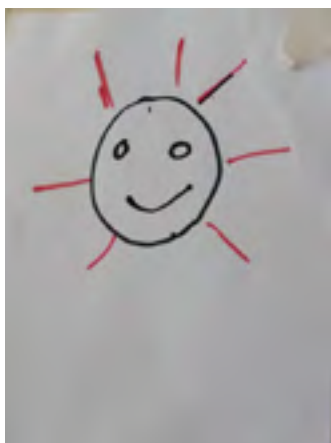
I've drawn a cooking pot. It means that I see myself as one who is loving and caring. I love people's company through sharing food.



This shows sugarcane. I see myself as someone who enjoys interacting with people and passing time through sharing locally available snacks such as sugarcane.



This is me singing at the church with my friends. I see myself as someone who likes sharing my joy through singing at church and comforting others if they need help.



My picture shows a happy sun. I'm someone who likes to spread happiness through my sunny personality.

Figure 6: Example of the Symbols Game

DAY
1**Morning session I (Village A & B)**

➤ Session objective	- Offer participants in Villages A and B the opportunity to get to know each other.
➤ Session outcomes	- Relaxed participants who are ready to participate actively and enthusiastically in the training
➤ Methods	- Individual drawings - Presentation in pairs who don't know each other (mixed or same gender – note what is appropriate for the cultural context)
➤ Time	- 30–40 minutes (depending on the size of group)
➤ Arrangement	- Space for free movement of participants and for pair presentations
➤ Resources	- Pens or biro's (one each) - Small colored cards (e.g. post-it notes or A4 paper cut into four) - Masking tape - A place to post up the colored cards

DAY
1**Facilitator preparation**

- Please make sure you have the materials to hand. Ideally, practice the symbols game with your friends or family before you try it out in the field.
- Encourage participants to talk to someone new, but be aware of cultural norms as well. Ideally, participants are free to join anyone they don't know, but use your local knowledge. If mixing between genders is frowned upon, then suggest that men talk to men they haven't met before, and women talk to women they haven't met before.
- It's important that participants do not describe their occupation (otherwise most people will draw a plough) – but rather try to convey something about their character, as in the sample drawings.
- Take part. Make sure that you as facilitator pair up with someone you do not know as well.
- Ideally people will form pairs, but if the number in the group is uneven they can talk in a group of three.

The introductory Symbols Game relies on drawings, and provides participants with a first opportunity to draw. This tool helps participants to reflect on themselves as people and the qualities each person brings to the group. The reflective process helps everyone to appreciate each other from the start. It also helps to create a learning atmosphere, and to kick-start a process of thinking a bit more deeply about oneself and others.

Steps

Give each participant (farmers, facilitator, extension workers) a colored card and a pen.

Ask each person to draw a very simple picture of something they feel expresses the kind of person they are (5 minutes).

- ***This is not about the person's job! People should draw something, however simple, that explains something special about themselves.***

Ask participants to walk around the room showing each other their drawings (about 5 minutes).

Then, ask them to stand next to someone they haven't met before, to share their names, and to explain the meaning of their drawings to each other.

Form a circle with the pairs standing next to each other. Ask each participant to say their partner's name and explain the meaning of their partner's drawing to the whole group.

Ask everyone to rub their hands briefly and clap once at the end of each paired presentation.

- ***The facilitator can shout "Everybody Rub! Rub! Rub! CLAAAP!!"***

Without interrupting the flow of paired presentations, observe if there are drawings that are similar or unique.

Reflect back to the group:

- If people have similar drawings, this suggests that others have similar thoughts and feelings to theirs. They should feel encouraged to share their ideas freely because they now know that there are people like them in the group.
- If people have different or unique drawings, this suggests that everyone in the group can learn something special and new from them.



TOOL 2

Gender Balance Tree

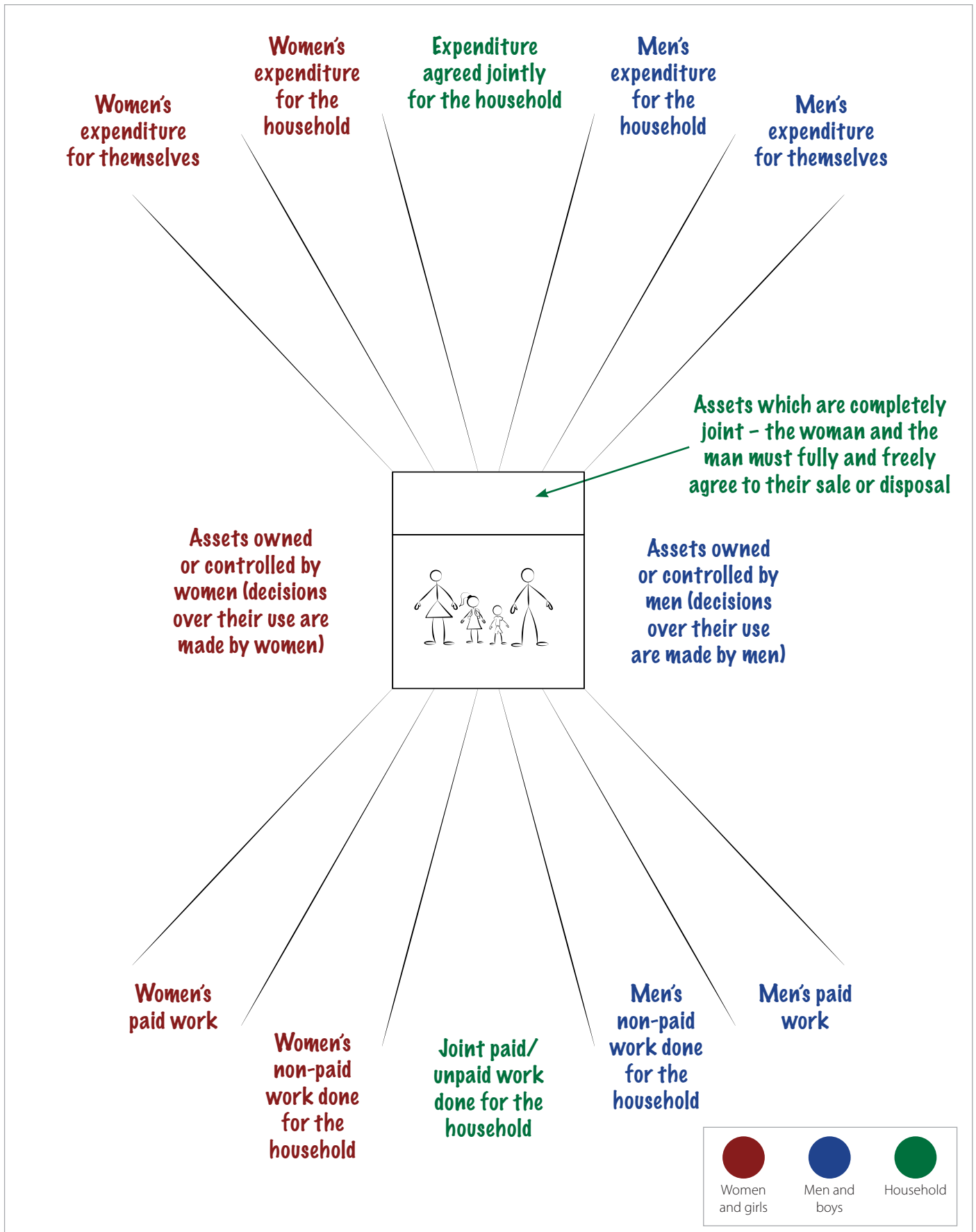
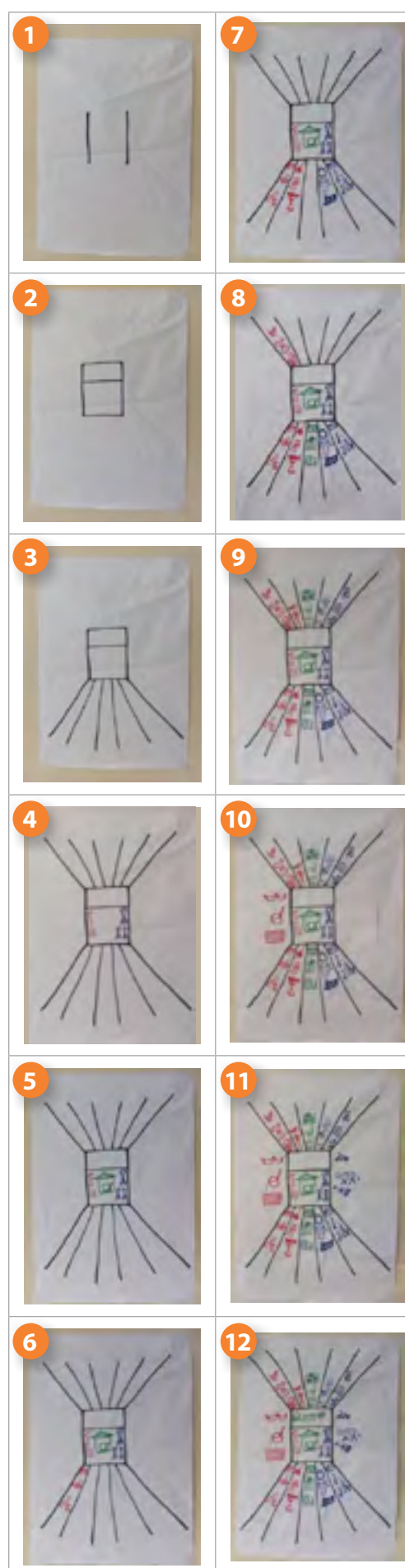


Figure 7: The Gender Balance Tree

**ROOTS: Activities** (six lines below the trunk, left to right)

Women		Shared	Men	
Paid work	Non-paid work		Non-paid work	Paid work
Growing vegetables	Mopping the house	Constructing a house	Constructing a fence	Building houses
Making doughnuts	Taking care of children	Farming	Making pit latrine	Selling labour in people's farms
Washing clothes for pay	Fetching firewood	Taking care of children	Ploughing with oxen	Operating bicycle taxi

BRANCHES: Expenditure (six lines above the trunk, left to right)

Women		Shared	Men	
For themselves	For household		For household	For themselves
Steaming hair	Cooking oil	Buying fertilizer	Buying sugar	Buying beer
Buying dress	Soap	Paying school fees	Buying meat	Paying to watch soccer
Buying tea from tea room	Vegetables	Buying farm land	Buying clothes	Womanizing

TRUNK: Assets (left to right)

Women	Shared	Men
Plates	House (on private land)	Bicycle
Cooking pots	Private farm land	Cattle
Mat	Fruit trees	Oxcart

Figure 8: Building up a Gender Balance Tree (example content only)



Figure 9: A sample Gender Balance Tree

DAY
1**Morning session II (Village A & B)**

➤ Session objective	- Start discussions around who contributes to the household, and whether benefits are equally and fairly distributed.
➤ Session outcomes	- Participants understand and appreciate the roles of household men and women regarding workloads, ownership, control, and decision-making over assets and expenditure. - Participants know how to draw a household-level Gender Balance Tree when they go home.
➤ Methods	- Plenary facilitation, pair/small group work - Brainstorming, drawing, analyzing, supporting each other
➤ Time	- About 120 minutes (could be longer: be open to the process)
➤ Arrangement	- Adequate space for group discussions with room for two groups (one of women, and one of men), with chairs for everyone, space to come up to the front, and space to put up a flipchart
➤ Resources	- A4 notepads for all participants - Lead pencils, rubbers and pens (red, green, black, blue) for all participants - Flipchart pens for facilitator - Flipchart paper - Masking tape (to put paper on wall) or flipchart stand

DAY
1**Facilitator preparation**

- Complete the Gender Balance Tree on your own – step by step as outlined below – to make sure you understand it well. It is good to reflect your own situation, but also use it to anticipate responses from the workshop participants.
- To do this well, use your local knowledge, and also call upon gender experts, extension workers, and other colleagues to make sure you understand which work (*e.g. care, household, livestock, crop, off-farm*) women and men generally undertake individually and together. Be aware though that roles change over time and can be different in every community – it is important to avoid assumptions and stereotypes. Also consider common spending patterns by gender. Finally, think about who owns or manages assets at the household level.
- The aim of thorough preparation is not to provide answers during the exercise. It's important to avoid this. Good preparation will allow you to ask gently probing questions here and there, when you think a particular area of work is being overlooked. (*e.g. Do people own cattle here? Who provides them with feed? What about water?*) Asking questions like this may then enable the participants to think of other livestock-related work (etc.) on their own.
- This can include unpacking concepts such as ownership of assets (*e.g. What does it mean to own an asset, and how do participants understand this? What about legal or customary rights, decision-making regarding use or sale, inheritance practices? Who would keep the asset in cases of divorce or separation?*)

DAY
1**Facilitator preparation (continued)**

- Working on the Gender Balance Tree in advance will help you to become aware of likely hot topics (*e.g. asset distribution, spending on girlfriends*) and ways to ensure these are openly discussed without becoming heated, or conversely being turned into a joke.
- Good preparation will help you to understand what to expect from the process and enable you to guide the participants effectively.
- It's important not to suggest items, challenges and solutions to the participants – but you can ask open questions to bring out ideas for issues to discuss.

The session will help participants to appreciate:

- the different ways in which women and men contribute to the household through their care and household work, and through on- and off-farm, paid and unpaid work
- how the income from the work of each household member is distributed and spent
- the assets women and men own – obtained either through their work or through inheritance
- the correspondence between the amount of work a person contributes and the benefits they gain.

It helps participants to start thinking about how to make their household and farm system more equal.

Steps**Open the discussion**

Make sure that people are seated in a group of women, and a group of men. Within each group, they need to sit closely enough to each other to discuss topics in pairs or small groups.

Discuss what a healthy tree looks like. What features must it have not to fall over?

- *Elicit ideas like strong roots, strong trunk, and balanced branches, to come to the idea that a tree needs to be balanced to be strong.*

Draw the tree

Draw the trunk of a tree in the middle of the flipchart page, which is already on the wall or flipchart stand at the front. Make it square. Draw one line across the middle, so you have two sections.

Leave plenty of space for the roots and the branches. Leave space on the sides as well.

Draw five roots and five branches from the trunk, ensuring there is enough space for symbols inside each root and each branch.

Ask all the participants to draw the same image in their book. They should use a pencil so they can make corrections. Go around and check that each person is doing it correctly.



Fill the bottom part of the trunk

Agree on the definition of a household with the participants. This is usually different from a family. Work with the participants' own definition. One example is:

- *A household is defined as everyone eating from the same pot.*

Ask the participants how the household could be expressed as a symbol (e.g. a cooking pot). Ask a volunteer to come and draw the chosen symbol in the center of the bottom part of the trunk. They need to leave space to the left and right of the household symbol for the household members.

Agree on a typical number of household members in the community. Ask someone to volunteer to come up and draw symbols for women, men, girls, and boys. They need to draw symbols on the left for women and girls, and on the right for men and boys. These symbols need to be agreed between the volunteer and the participants, as they will be used throughout the workshop.

Leave the top section of the trunk empty for now.

Complete the roots

The roots show the unpaid and paid work that women and men contribute to the household separately and jointly.

Paid activities

Ask participants to discuss between themselves – in pairs or small sub-groups within their large single-sex group – activities done by women which bring income (paid work). They should think of as many activities as possible.

Then ask them to discuss between themselves activities done by men which bring income (paid work). Again, they should think of as many activities as possible.

Invite one woman volunteer to come up and draw red symbols of the income-generating activities done by women (first left root). Then invite one man volunteer to draw blue symbols of the income-generating activities done by men (first right root).

As a group, examine the roots. Ask the men – have the women forgotten anything for their root? Ask the women – have the men forgotten anything for their root?

Encourage men volunteers to come up and complete the women's root, and women volunteers to come up and complete the men's root.

Unpaid activities essential to the household

Ask participants to discuss between themselves (in pairs or small groups) unpaid activities done by women which do not provide income, but which are vital to the household. They should think of as many activities as possible.

- *Remember, these are activities women do on their own.*
- *It's best not to provide examples unless really necessary, but if participants have difficulties you could brainstorm together for a minute or two – examples include collecting firewood, hauling water, sweeping, cooking, childcare, taking care of ill people, feeding livestock – and then ask them to continue discussing in their small groups.*

Now ask participants to discuss between themselves unpaid activities done by men which do not provide income, but which are vital to the household. They should think of as many activities as possible.

- *Remember, these are activities men do completely on their own.*



Invite one woman volunteer to come up and draw red symbols of the unpaid activities done by women (second left root). Then invite one man volunteer to draw blue symbols of the unpaid activities done by men (second right root).

➤ ***Remember, these are activities which women, or men, do on their own without any help from the spouse.***

As a group, examine the roots. Ask the men – have the women forgotten anything for their root? Ask the women – have the men forgotten anything for their root?

Encourage men volunteers to come up and complete the women's root, and women volunteers to come up and complete the men's root.

Joint activities for the benefit of the household

Ask participants to discuss between themselves the paid and unpaid activities which women and men conduct jointly for the benefit of the household. They should think of as many activities as possible.

Encourage participants to break down activities into specific contributions by women and men, even if the overall activity is shared.

➤ ***It's best not to provide examples unless really necessary, but if participants have difficulties, brainstorm together. Examples include building a house – what do women contribute and what do men contribute? Building fences, livestock corrals and pens, etc.? The key is not who has responsibility, but who does the work.***

Invite volunteers one by one to come up and draw symbols of activities done by women and men together in the middle root. Encourage both women and men to come up. Use green.

As a group, examine the middle root. Have any joint activities been forgotten?

Complete the branches

The branches show how women and men spend household income.

Expenditures benefiting oneself

Ask participants to discuss between themselves the expenditures women make that benefit only themselves. They should think of as many as possible (and be honest!).

Now ask participants to discuss between themselves the expenditures men make that benefit only themselves. Again, they should think of as many expenditures as possible (and be honest!).

Invite one woman volunteer to come up and draw red symbols of expenditure by women that benefit themselves (first left branch). Then invite one man volunteer to draw blue symbols of expenditure by men that benefit themselves (first right branch).

As a group, examine the branches. Ask the men – have the women forgotten anything for their branch? Ask the women – have the men forgotten anything for their branch?

Encourage men volunteers to come up and complete the women's branch, and women volunteers to come up and complete the men's branch.



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Individual expenditures benefiting the whole household

Now ask participants to discuss between themselves the expenditures women make which benefit everyone in the household. They should think of as many expenditures as possible.

Then ask participants to discuss between themselves the expenditures men make which benefit everyone in the household. They should think of as many expenditures as possible.

Invite one woman volunteer to come up and draw red symbols of expenditure by women that benefit the whole household (second left branch). Then invite one man volunteer to draw blue symbols of expenditure by men that benefit the whole household (second right branch).

As a group, examine the branches. Ask the men – have the women forgotten anything for their branch? Ask the women – have the men forgotten anything for their branch?

Encourage men volunteers to come up and complete the women's branch, and women volunteers to come up and complete the men's branch.

Joint expenditures benefiting everyone in the household

Ask participants to discuss between themselves the expenditures women and men make together which benefit everyone in the household. They should think of as many expenditures as possible.

Invite volunteers to come up and draw symbols in the middle branch for expenditures made by women and men together for the benefit of the whole household. They do not need to bother about who makes the actual payment. Use green.

As a group, examine the middle branch. Have any joint activities been forgotten?

Complete the trunk

The sides and top third of the trunk show the assets held by women, by men, and jointly. Explain that it's useful to look at all the branches, including the middle branch, to see if any assets there can be allocated to women, men, or joint ownership. Add that some assets are inherited, so they should think of these as well.

Ask participants to discuss between themselves the assets which belong to women only.

- *This means that the woman can decide to use, sell or give away the asset. If the couple split up, the woman is allowed to keep the asset.*

Ask participants between themselves to discuss the assets which belong to men only.

- *This means that the man can decide to use, sell or give away the asset. If the couple split up, the man is allowed to keep the asset.*

Ask participants to discuss between themselves the assets which belong to the couple.

- *This means that the couple must agree jointly to sell or give away the asset. If the couple split up, the woman receives half the asset, and the man receives the other half (of the actual asset or its value in cash).*

Invite a woman volunteer to come up and draw assets over which women have full decision-making power. She should draw the assets in red on the left-hand side of the trunk.

Invite a man volunteer to come up and draw assets over which men have full decision-making power. He should draw the assets in blue on the right-hand side of the trunk.

Invite a woman or a man volunteer to come up and draw assets over which women and men fully share control and where both have full decision-making power. He or she should draw the assets in the box in the top half of the trunk, in green.

As a group, examine the trunk. Have any assets been forgotten? If so, ask people to come up and add them.

Analyze the Gender Balance Tree

Guide the participants to analyze their Gender Balance Tree by asking questions.

- *A vital part of this exercise is to get commitment, however small or large, for acting on the findings of the Gender Balance Tree. Encourage participants to think of one or two small actions they can take right away, and later, to make their Tree more equal.*

Open by asking: Is the tree balanced or unbalanced? Ask for some general reflections from women and from men.

Work

Whose work brings a lump sum of money at particular moments in the year?

Whose work brings money on a daily basis?

Who does more paid and more unpaid work on a daily basis?

Whose work is more frequent than the other's? Pick out specific activities.

Cumulatively, whose work takes more time?

Whose work demands discipline, dedication and focus?

Who usually depends on the other to do their work well?

Key question:

- *How can couples help each other in their work?
Ask women and men to contribute ideas.*

Assets

Who controls assets of low value?

Who controls assets of high value?

Is this distribution of assets balanced?

Key questions:

- *What can couples do to improve how household assets are used and shared?*
- *What can couples do to strengthen the number and quality of assets that women control?*
- *Ask women and men to contribute ideas.*

Expenditure

Who spends the most on themselves?

Who spends the most on the household?

Is the joint expenditure reflected in the purchase of joint assets?

Key question:

- *Is there anything couples can do to improve their expenditures for the benefit of everyone in the household?
Ask women and men to contribute ideas.*



Put the Gender Balance Tree into participants' notebooks

- On a clean piece of flipchart paper, recap the steps to create the Gender Balance Tree. Ask the participants to draw the steps in the back of their notebook. They just need to draw the outline, no symbols.
- Go around and check they have drawn the basic structure of the Gender Balance Tree correctly, that they have labelled each section with words or an image to represent its meaning, and that they have captured the order of the steps (roots, branches, trunk).
- They can use this version to help them create their own Gender Balance Tree, and to share the process with other households.

Wrap up

Ask each participant to share one thing about what they have learned during this exercise.

Ask if anyone would like to volunteer to share something they want to change in their household, based on their reflections during the exercise.

Remind participants that the Gender Balance Tree they have been working on is a general approach, and it may not be relevant to their own household.

Highlight that this exercise is not only relevant for couples. It can be used in different types of households, for example a woman head and her grown children. When women household heads do this exercise, they can see, and share with others, how much work they do to manage the household and generate income.

Ask participants to use the basic structure in their notebook to work together with their spouse and other household members to make their own Gender Balance Tree. Remind them to think of ways they can help each other to make their own tree balanced.

Finish by returning to the image we started with, to discuss what makes a strong tree. Encourage everyone to continue to reflect on how they can strengthen the gender balance in their own household for the wellbeing of all household members. Encourage them to leave this workshop with one or two commitments to make things better in their household. They don't have to share these with the wider group.

- ***Remember: don't take sides or help participants make judgments. If done correctly, their finished Gender Balance Tree will help people find the best way forward for them.***

TOOL 3

Technical Briefing and Questions for the Visit to Village B



DAY
1**Afternoon session (Village A only)**

➤ Session objective	- Introduce the selected technology (e.g. tied ridges). - Help participants from Village A to prepare questions for their visit to the farms of participants in Village B.
➤ Session outcomes	- Village A participants have a basic understanding of the new technology. - Village A participants know what questions they want to ask when they visit Village B.
➤ Methods	- Group discussion using guiding questions
➤ Time	- 45 minutes
➤ Arrangement	- Space for free movement of participants
➤ Resources	- Extension worker or expert in the new technology

DAY
1**Facilitator preparation**

- It's important to understand the selected technology – you will use the same technology example across all the tools.
- To make sure of this, you will need to work closely with technical experts such as extension workers.
- Ideally, you should work with the technical experts during preparation for the training, across the three days with the participants, and during follow up in the villages.
- You should also understand the basic gender issues in relation to the technology. For instance: Who normally does what task? Is there a typical division of labor, or a lot of variation in this? What resources are needed to implement the technology? Do men and women have equal access to these resources?
- Ideally, it's also good to find out whether women and/or men are usually targeted for training in the technology, and why.
- On day 1, the technical expert will present a short interactive lecture on the technology to participants from Village A.

This tool promotes peer learning, and helps participants from Village A deepen their thinking on how their identities as men and women shape their experiences with technologies.

This involves thinking about:

- decisions that are needed when someone considers adopting a technology
- criteria people use to decide whether adoption is successful.

And it involves thinking about how these processes affect women and men:

- who contributes to successful technology adoption, and how?
- who benefits from successful technology adoption, and in what ways?

Steps

Invite the extension worker or technical expert to explain the selected technology in detail.

Then, ask the participants to sit in pairs. Ideally they could partner with someone new, but they can also sit as couples. Ask them to discuss the following questions for about 15 minutes:

- their technical questions about the new technology
- their ideas regarding the tasks women are more likely to conduct when adopting the technology
- their ideas regarding the tasks men are more likely to conduct when adopting the technology
- the ways in which they think women will benefit from adoption
- the ways in which they think men will benefit from adoption.

Now, ask them to come together to pose their technical questions to the extension worker.

Encourage participants to ask any other questions of the extension worker as well – including social questions about women's and men's contributions to, and benefits from, the technology.

Close by summarizing the key questions participants have been asking.

➤ *Ask them to remember these questions for their field visits to the farmers in Village B.*



Tied ridges: A selected technology

This example of tied ridges demonstrates the type and level of knowledge the technical expert needs to convey.

The practice of tied or box ridges involves segmenting the ridge furrows to create barriers that reduce water flow through the ridges. The method differs slightly from country to country.



Figure 10: Farmers making tied ridges in Kongwa District, Tanzania.

Residual tied ridging (e.g. Tanzania)

- Residual ridges are ridges that are maintained in the same position over several years and repaired every year.
- In year one, the field is ploughed during planting time. This allows the ridges to capture as much rain water as possible.
- Ridges around 25–45 cm high are constructed across the slope using a hand hoe or oxen-drawn ridger. It is important to consider the recommended row spacing of the crop to be planted.
- Cross-ties between the ridges are constructed by scraping up soil from the bottom of the furrows. This is done at intervals of 1–2 metres. Cross-ties should be only 50–75% of the height of the ridges. Excess water can drain away through the lower cross-ties.
- The crops are planted on the ridges.
- Ridges are maintained and managed flexibly, and ridge ties are broken during flooding periods. Ridges and ties are continually repaired (for instance during weeding).
- In subsequent cropping seasons, tied ridges made in the previous season are protected from grazing livestock to avoid destruction.
- The shape and size of ridges are improved using hand-held tillage implements just before the onset of the rainy season, or immediately after the first rains.

Tied/box ridge construction (e.g. Malawi)

The current recommendation in Malawi is to make ridges 75 cm apart. Farmers are encouraged to reduce ridge spacing (1–1.2 m apart). Reduced ridge spacing ensures increased plant density, quicker soil cover to reduce soil erosion, and fewer weeds due to the close canopy.

Tied ridges are made in the furrow position across two ridges every year.

- Residues are moved/scraped from the previous year's ridge into the previous year's furrow position. This practice is called *kuwodyeka* or *kusosa* depending on the region of Malawi.
- More soil is then added onto the residues in the furrow to completely bury them under the soil. This makes the new ridge while the previous ridge position becomes the furrow position. The ridge height can range between 30 and 45 cm. This process is called *kugalauza* or *kukwilira*.
- Soil is scraped from the furrow's floor using a hoe, to make a tied ridge between two ridges at 2 m intervals.
- Ties are about two-thirds the height of the main ridges to allow excess runoff to drain away.
- Consecutive ties in other ridges are made about half the distance of two ties in the previous furrow, making a chain-like structure.
- Ties are removed when there is continuous excessive rain to avoid waterlogging or destruction of the ridges.
- Ties are restored after excessive rains. If ties were removed during weeding, they can be restored after weeding.
- Ties can be permanently removed when crops do not need a lot of water.



Figure 11: Tied ridges in Kongwa, Tanzania

Benefits

- Encourages rainwater infiltration, reducing runoff and soil erosion.
- If prepared before the onset of rains, allows farmers to plant on time to cope with a short growing season in semi-arid agro-ecologies.
- May reduce crop failure and increase productivity due to increased soil moisture and fertility.

Challenges

- Residual tied ridges can be destroyed by livestock grazing on cropland if a field is not fenced or protected.
- Not recommended for sandy soils because ridges can be flattened by heavy rains.
- Lodging of crops planted on ridges can occur in cases of high wind speed.
- The first weeding can be very early depending on rainfall distribution, compared to flat cultivation.
- May be perceived as labor intensive compared with mechanical ploughing for flat cultivation.



DAY 2

Time	Exercise	Location
09.00	Village A participants arrive in Village B Registration, drinks, snacks, greeting song or similar (by Village B)	Village B
09.30	Village B participants each take one couple or woman-headed household members to their farm. The hosts show the technology in action. The visitors ask questions freely (those prepared via Tool 3 the previous day, and others)	
11.30	Feedback on farm visits. Key learning points about each question	
12.30	Lunch	
13.30	Tool 4. Technology Challenge Action Tree	
15.30	Finish	

Note: Start timings will depend on the local situation. Allow some flexibility in the timings during the day to make sure that everyone has time to understand, discuss, and record the tools properly.

Feedback on farm visits

DAY
2

Morning session (Village A & B)

➤ Session objective	- Enable participants to share their learning experiences on the interactions between a new technology, the implications for women's and men's work, and the benefits.
➤ Session outcomes	- Participants have thought about their learning journey over the past day and a half. - They have considered gender issues in relation to the adoption of new technologies.
➤ Methods	- Group discussion using guiding questions
➤ Time	- 45 minutes
➤ Arrangement	- Space for free movement of participants
➤ Resources	- Technical experts including extension workers, together with the facilitator

DAY
2

Facilitator preparation

- It is important for facilitators to accompany the farmers on their visits, to have a good basic understanding of the technology, and to appreciate some of the gender issues involved. This will help you steer the learning and sharing discussion session.
- The main purpose is for the participants to share their impressions. What have they learned about the technology? What have they learned about the roles of women and men in deciding about whether to adopt the technology, and who does what? Do they have questions about these issues, or other issues, that they want to ask in the meeting?

Steps

Farm visit

- Greet the participants (Village A) when they arrive in Village B.
- Take Village A participants directly to their Village B host farmers. Ideally there will be enough Village B hosts for each Village A couple or woman-headed household. If not, there should be two or three Village B hosts. Divide Village A participants between them.
- Village B hosts demonstrate the selected technology to their visitors.
- Village A participants ask questions freely about the technology. Encourage technical and gender questions.

Feedback on farm visit

- Greet the participants (Villages A and B). Ask couples/woman-headed households to reflect together on their farm visits. Then ask them for some initial impressions of the farm visit.
- Ask Village A participants what they have learned from the farm visit (as visitors).
- Ask Village B participants what they have learned from the farm visit (as hosts).
- Make sure that the participants discuss gender questions as well as technical questions, such as who does which work? How does each person in the household benefit?
- Technical experts can help answer queries on the technology.

TOOL 4

Technology Challenge Action Tree

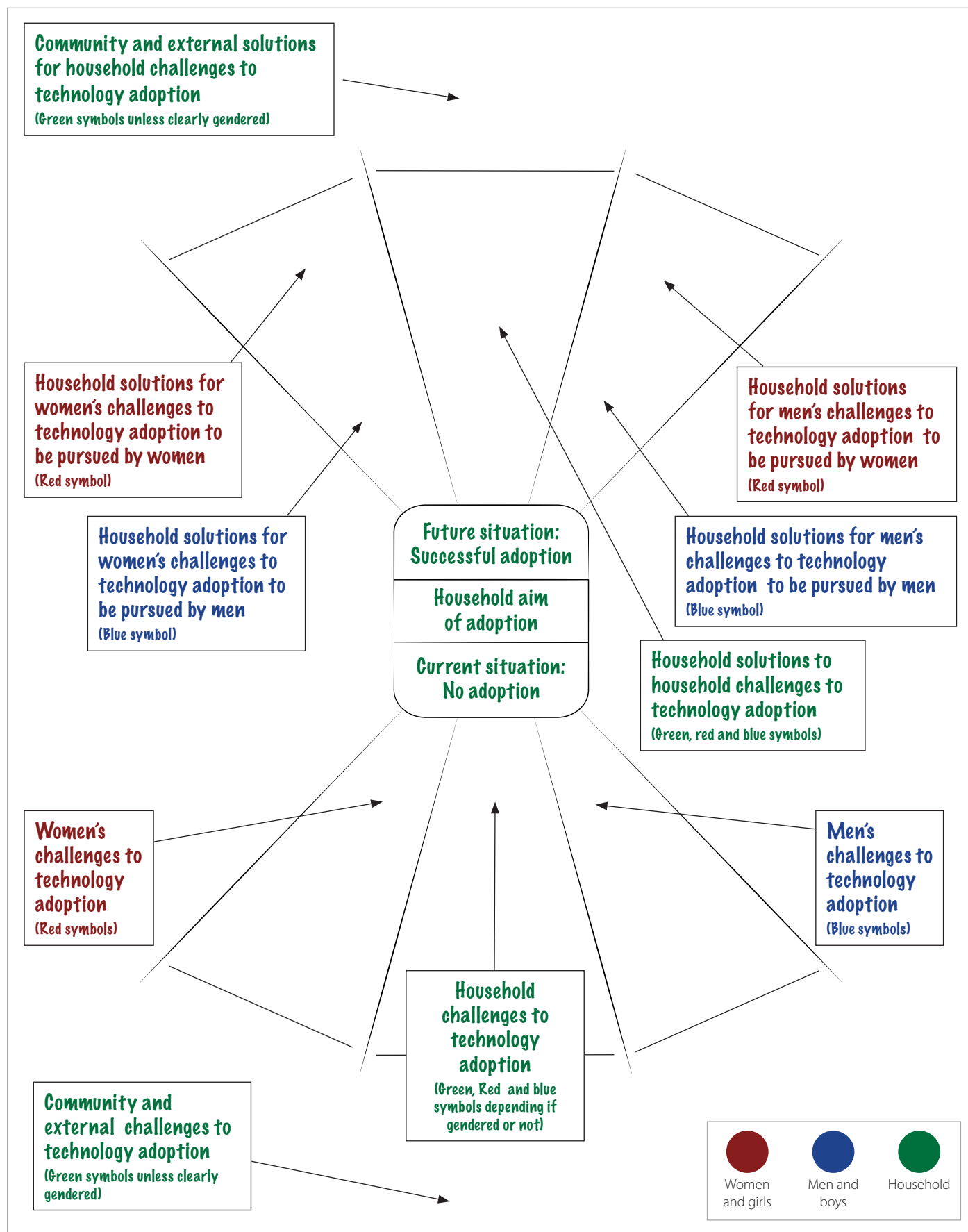
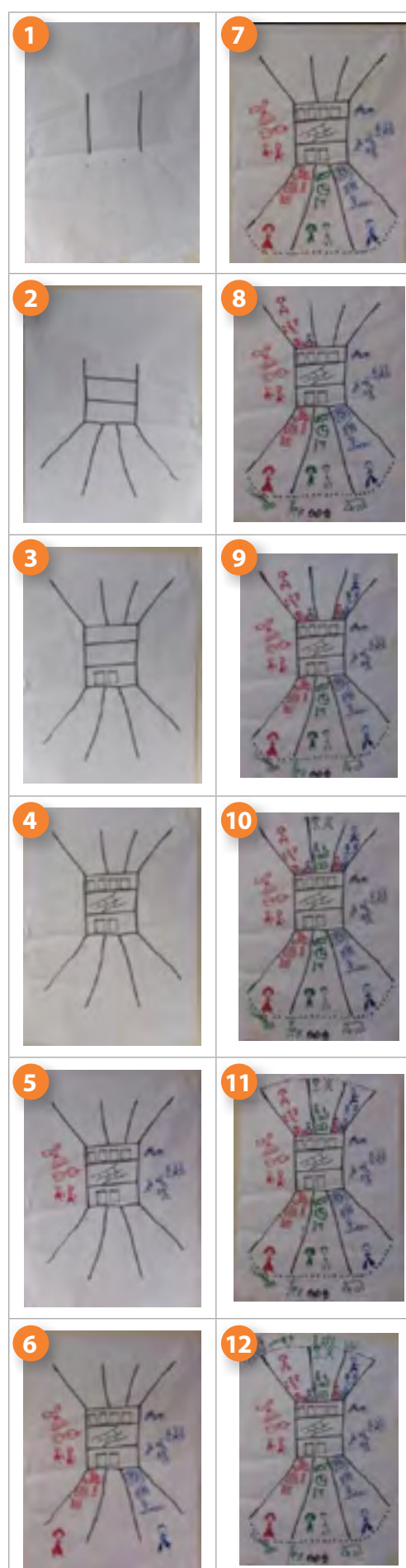


Figure 12: The Technology Challenge Action Tree

**ROOTS: Challenges preventing technology adoption** (four lines below the trunk, left to right)

Women	Joint	Men
Labour constraints (household labour not adequate)	Livestock trampling on ridges	Labour constraints (failure to hire casual labourers)
Lack of land ownership	Limited time	Limited access to information
Lack of information	Fights between husband and wife	Laziness (likes playing or watching football)

BRANCHES: Solutions to challenges (four lines above the trunk, left to right)

Women	Joint	Men
Woman and man working together (addresses labour constraints)	Enforcing by-laws over control of livestock	Working together
Woman and man working together (addresses lack of land ownership)	Joint planning	Asking friends and extension workers
Joining groups	Seeking counselling	Asking friends and extension workers

TRUNK: Present to future (bottom to top)

Present situation	Two bags of maize
Technology	Tied ridges
Desired situation	Four bags of maize

ENVIRONMENT: Benefits from adopting the technology

Women (left)	Men (right)
Money for clothes	Money for buying bicycle
Food for the household	Money for more women
Money and food for celebrations	Money for drinking

COMMUNITY CHALLENGES AND SOLUTIONS

Challenges (below roots)	Solutions (above branches)
Flooding	Adopting soil and water conservation technologies
Lack of extension messages	Community education
Community livestock trampling on fields	Setting by-laws to control livestock

Figure 13: Building up a Technology Challenge Action Tree (example content only)



Figure 14: Sample image of a Technology Challenge Action Tree

DAY
2**Afternoon session (Village A & B)**

➤ Session objective	- Provide participants with a decision-making tool for assessing a new technology and whether to adopt it. - Show participants how to use the tool to identify key challenges in their household and farm system that may prevent them from adopting successfully. - Demonstrate ways of using the tool to develop solutions to selected challenges by mobilizing support at the household and community levels.
➤ Session outcomes	- Participants understand why the roles women and men play may prevent successful technology adoption. - Participants have outlined potential solutions to their challenges at personal, household, and community levels.
➤ Methods	- Pair work and group work
➤ Time	- 120 minutes
➤ Arrangement	- Space for free movement of participants
➤ Resources	- Flipchart paper - Flipchart pens (four colors) - Masking tape or flipchart stand - Exercise book for each participant - Pens (four colors), pencils and rubbers for each participants

DAY
2**Facilitator preparation**

- You should complete the Technology Challenge Action Tree on your own, using the selected technology, to make sure you understand it well.
- Work through the likely gender and household-level challenges, and start thinking about possible solutions that participants may consider.
- Think about potential ways to visually represent the successful adoption of the technology, and how to draw the current situation. Finally, think about the outputs of the adoption (*More bags of maize? More milk? ...*).
- To do this well, you should use your local knowledge, and also call on gender experts, extension workers, and others to make sure you understand the typical roles and responsibilities of women and men in farming in your target communities (and also if these roles are changing). Also consider the challenges that women, and men, often face in their work. Then think about how the new technology, if adopted, is likely to affect women's and men's typical roles and responsibilities, and the benefits that each gender might obtain (*e.g. Is it likely to increase women's workloads? Why?*)

DAY
2**Facilitator preparation (continued)**

- Good preparation will help you understand what to expect from the process, and will help you guide the participants effectively.
- It's important not to suggest challenges and solutions to the participants, but you can ask open questions to help open up ideas for issues to be discussed.

This tool allows farmers to consider how their identities as men and women shape their ability to adopt successfully.

The session shows participants how to use the tool to:

- develop achievable visions for adoption of this potential technology; or
- decide that this technology is not for them.

It helps them draw up an action plan for supporting each other at household level and in the community.

Steps**Explain the exercise**

Ask participants to sit in two separate groups, a women's group and a men's group.

Explain that the purpose is to discuss the challenges of adopting a new technology, and how to overcome those challenges for successful adoption.

Talk about the example you are working with: the technology that Village B participants have already started adopting, and that Village A participants have started learning about. This is because everyone needs to have some understanding of the selected technology.

Explain that you are demonstrating this tool to help them adopt other crop and livestock technologies successfully. They should make notes in their notebook to help them draw a Technology Challenge Action Tree later for another technology they wish to adopt, or to share it with others.

Draw the tree

Draw the trunk of a tree in the middle of a flipchart page. Make this square. Draw two horizontal lines across the middle, so you have three sections.

Leave plenty of space for the roots and branches. Leave space on the sides as well.

Draw three roots and three branches for the trunk. Make sure there is enough space for symbols inside each root and each branch.

Draw a line across the top third of the branches.

Ask each participant to draw the same picture in their notebook. Go around and check that they are doing it correctly.



Fill the bottom third of the trunk

Ask participants to talk in pairs or small groups about the current appearance of their fields or livestock (depending on the technology chosen). What does the field, or the animals (etc.) look like?

Once they have described the appearance, ask a volunteer (woman or man) to come up to the flipchart and draw the current status in the lower third of the trunk.

Fill the top third of the trunk

Ask participants to talk in pairs or small groups about their expectations of the new technology. Focus on the outcome they would like to see from using the technology, which is likely to be expressed in terms of direct outputs (more milk, more bags of maize ...).

Ask a volunteer of the opposite gender to the first one to come up and draw their pair's or group's expectations about the outputs in the top section of the trunk.

Fill the middle third of the trunk

Ask participants to talk in pairs or small groups about what they will have to do, technically, to achieve their desired outcome. This can be represented by how they expect their fields, or livestock, to appear after they have adopted the new technology (the cows could be bigger, or a different breed; the fields could show tied ridges).

Ask a volunteer (woman or man) to come and draw their group's expectations about the outputs in the middle section of the trunk.

Complete the roots – challenges

The roots show the challenges to adopting the new technology. The left side is for the women's challenges; the right side is for the men's. The middle root is for challenges in the household.

Ask participants to talk in pairs or small groups about the challenges faced by women when trying to adopt the new technology. They should think of as many challenges as possible.

Now ask participants to discuss to talk in pairs or small groups the challenges faced by men when trying to adopt the new technology. They should think of as many challenges as possible.

Invite volunteers from the women's group, and the men's group, to come up and draw symbols of the anticipated challenges faced by each gender:

- women volunteers should complete the first left root, and put the symbol for women at the bottom of their root
- men volunteers should complete the first right root, and put the symbol for men at the bottom of their root.

As a group, examine the roots. Ask the men – have the women forgotten anything for their root? Ask the women – have the men forgotten anything for their root? Encourage men volunteers to come up and complete the women's root, and women volunteers to come up and complete the men's root.

Now ask participants to discuss between themselves the challenges faced jointly by couples/woman-headed households when trying to adopt new technologies. They should think of as many challenges as possible. These problems are inside the household itself.

Ask a volunteer from the women's group to come up and complete the middle root with *joint challenges* faced by the household. They should put a symbol for the household at the bottom of the middle root. A volunteer from the men's group can complete the root.

Now ask the participants to discuss among themselves the challenges caused by the local community and/or external actors which impact negatively on couples/woman-headed households when trying to adopt new technologies. They



should think of as many challenges as possible. (Challenges could relate to management of resources, livestock management, community by-laws, extension support ...)

Ask a volunteer from the women's group to come up and complete the section below the roots with *community challenges* faced by the household. They should put a symbol for the community below the roots. A volunteer from the men's group can add further challenges.

Complete the branches – solutions

The branches show possible solutions to each challenge. The left side is for solutions to the women's challenges; and the right side is for solutions to the men's. The middle root is for solutions to the challenges in the household.

Ask participants, in pairs or small groups, to develop solutions to women's challenges. They should think of solutions that:

- women can do by themselves
- involve men helping women
- need the help of people in the community.

Now ask participants to discuss between themselves solutions to men's challenges. They should think of solutions that:

- men can do by themselves
- involve women helping men
- need the help of people in the community.

Invite women volunteers to draw symbols of solutions to women's challenges:

- solutions that women can do for themselves, and solutions that need the help of men, should be in the lower two-thirds of the branch
- solutions that need the help of the community should be in the top third of the branch.

Invite men volunteers to add more solutions to the women's challenges.

Then, invite men volunteers to draw symbols of solutions to men's challenges:

- solutions that men can do for themselves, and solutions that need the help of women, should be in the first two-thirds of the branch
- solutions that need the help of the community should be put in the top third of the branch.

Invite women volunteers to add more solutions to the men's challenges.

Now ask participants to discuss between themselves solutions to challenges facing couples and woman-headed households. They should think of solutions that:

- the household members can do by themselves
- need the help of people in the community.

Invite volunteers to draw symbols of solutions to joint/household challenges:

- solutions that the household can do for themselves should be in the first two-thirds of the branch
- solutions that need the help of the community should be put in the top third of the branch.

Now ask participants to discuss between themselves solutions that:

- the household members can do by themselves
- need people in the community to work together.

Invite volunteers to draw symbols of solutions to challenges. The solutions should be put across the very top of the tree.

Analyze the Technology Challenge Action Tree

Guide the participants to analyze their tree. Ask for general reflections from women and from men.

Engage participants in a deeper discussion on how they can implement their solutions for women, men and the whole household.

- *What needs to happen in order to be effective? What personal changes need to happen? What support is needed to help people? What support do women need from men, and vice versa? What strategies can be developed to engage the wider community effectively?*

Base this on the solutions identified, for example working with village leaders, extension workers, input sellers, etc.

Put the Technology Challenge Action Tree into participants' notebooks

- On a clean piece of flipchart paper, recap the steps for creating the Technology Challenge Action Tree by asking participants to draw the steps in the back of their notebook.
- Go around and check if they have drawn the basic structure of the Tree correctly, that they have labelled each section and that they have captured the order of the steps.
- This version will be used to help them create their own Technology Challenge Action Tree, and they can also use this version to share with other households.

Wrap up

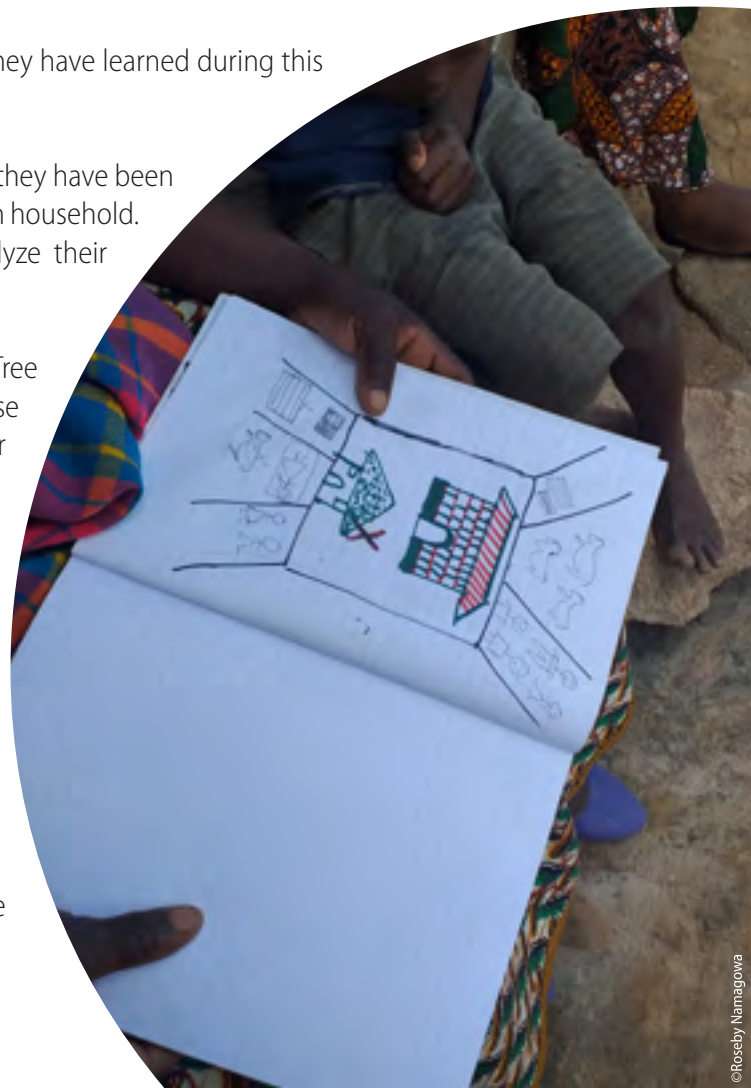
Ask each participant to provide one or two thoughts on what they have learned during this exercise.

Remind participants that the Technology Challenge Action Tree they have been working on is a general tree, and may not be relevant to their own household. The Technology Challenge Action Tree allows people to analyze their situation and tailor it to their precise circumstances.

Ask participants to take their Technology Challenge Action Tree home with them. They should work together with their spouse and other family members to make their own tree whenever they are thinking about adopting a new technology.

Remind participants to think of ways they can help each other to make their Technology Challenge Action Tree later (maybe because they have forgotten some steps, or would like some advice). Encourage them to sit down together to remind themselves of the steps.

Remind them that this is a way to think carefully about their challenges. Once they understand their challenges, they can then develop solutions. The important thing is that to solve their challenges they will need to support each other inside the household, and to help each other in the community as well.





DAY 3

Time	Exercise	Location
09.00	Village B participants arrive in Village A. Registration, drinks, snacks, greeting song or similar (by Village A)	Village A
09.30	Tool 5. Technology Vision Journey	
11.30	Lunch	
12.30	Tool 6. Snowball Peer Training Map	
13.30	Wrap up	

Note: Start timings will depend on the local situation. Allow some flexibility in the timings during the day to make sure that everyone has time to understand, discuss, and record the tools properly.

TOOL 5

Technology Vision Journey

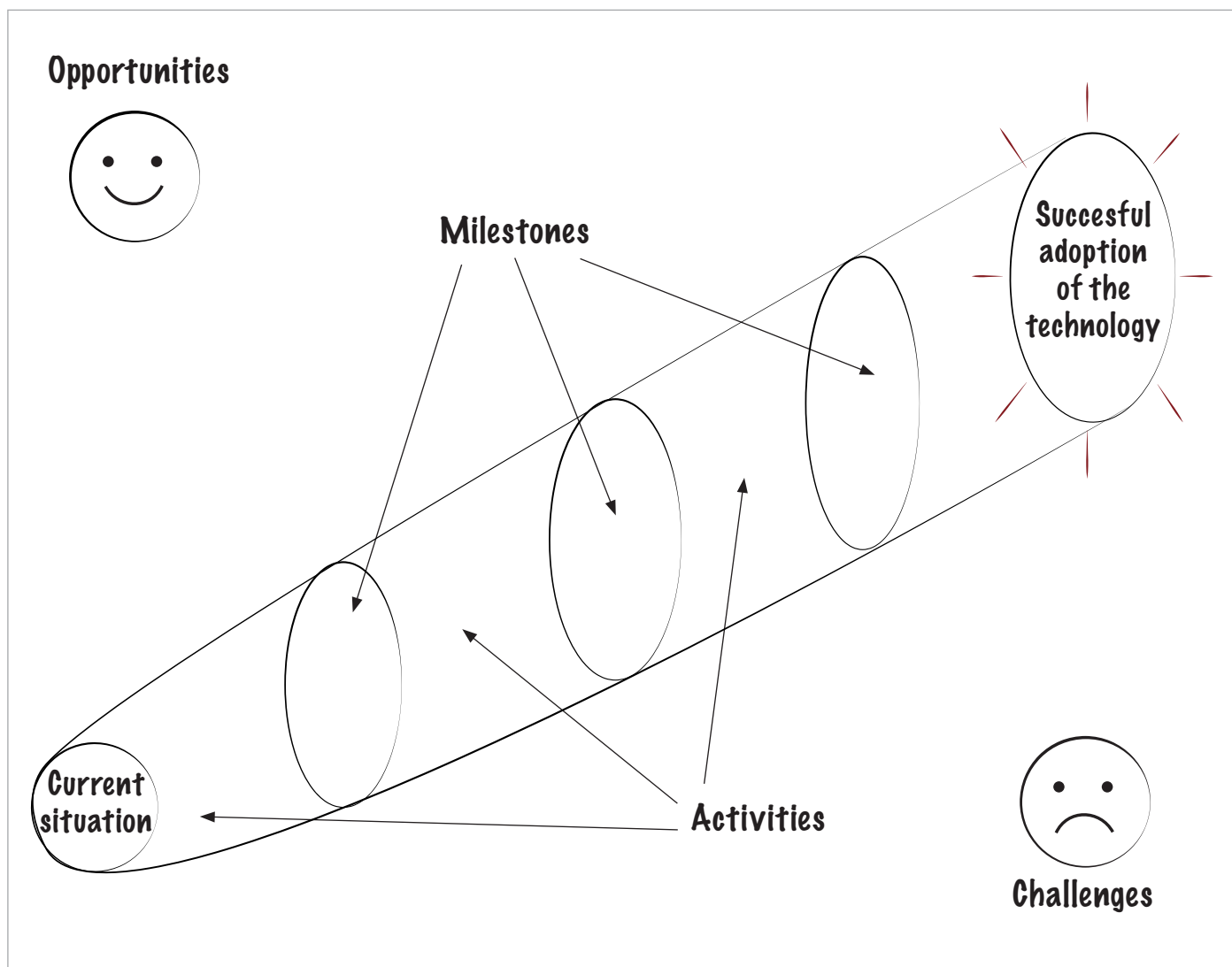
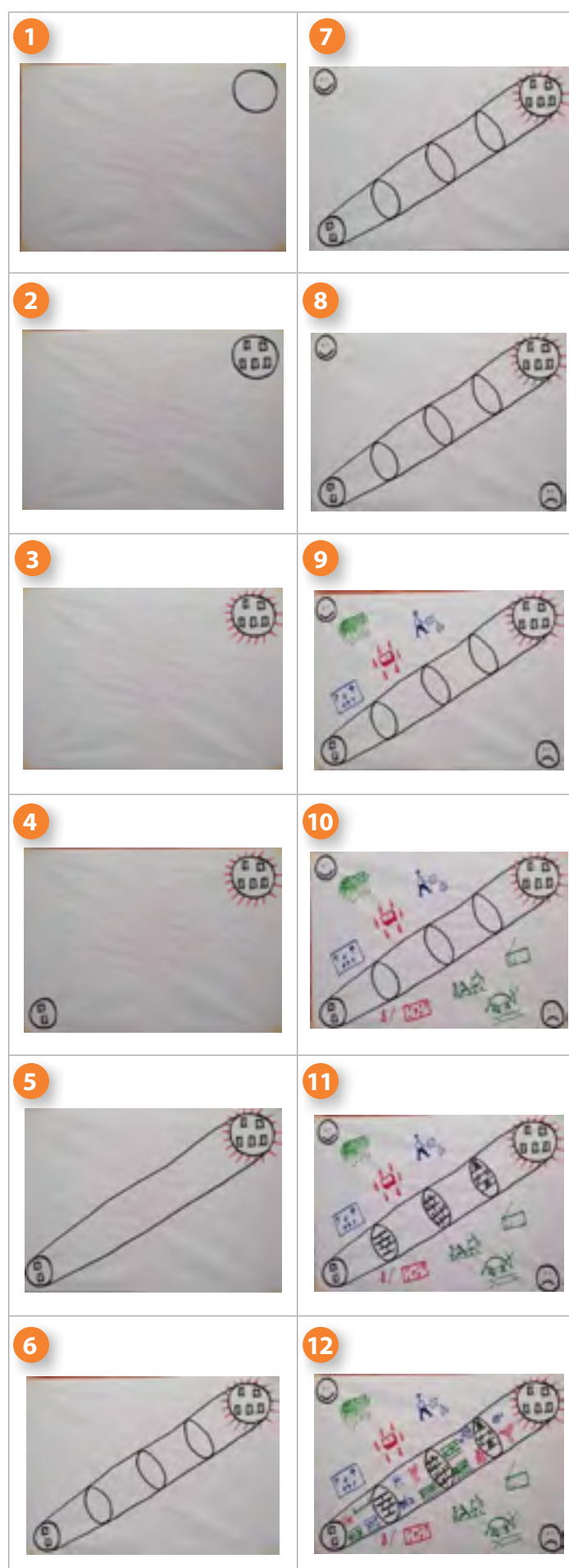


Figure 15: The Technology Vision Journey

**Vision**

- To harvest 5 bags of maize

Present situation

- Harvest of 2 bags of maize

Activities**Milestone 1 – A garden with tied ridges**

- Removing brash **W**
- Making tied ridges **W M**
- Measuring ridge length **W M**
- Clearing new shrubs before sowing **M**

Milestone 2 – A garden with healthy maize crop

- Buying seed **M**
- Carrying seed for sowing, food and hoes to the garden **W**
- Carrying fertilizer to the garden **M**
- Sowing and fertilizing **W M**

Milestone 3 – Standing heaps of maize stalks ready for harvesting

- Second fertilizer application **W M**
- Weeding **W M**
- Cutting maize stalks **M**
- Creating heaps of maize stalks **W**

Achieving the vision

- Carrying maize home (using ox-carts or bicycles) **M**
- Carrying maize home (using sacks on heads) **W**

Opportunities

- Land **M**
- Savings (through village savings groups) **W**
- Extension services **M**
- Good rainfall **W M**

Challenges and impacts

- Poor access and ownership to land **W**
- High labour demand **W M**
- Lack of information about tied ridges **W M**
- Livestock trampling on tied ridges **W M**



Women and girls



Men and boys



Household/common

Figure 16: Building up a Technology Vision Journey (example content only)

DAY
3**Morning session (Village A & B)**

➤ Session objective	Show participants how to use this tool to: - develop achievable visions for technology adoption; or - decide that a potential technology is not for them.
➤ Session outcomes	- A clear vision journey for adopting a technology at the household level.
➤ Methods	- Pair and group work
➤ Time	- 120 minutes
➤ Arrangement	- Space for free movement of participants
➤ Resources	- Flipchart pens in different colors - Flipchart - Masking tape or flipchart stand - Exercise book for each participant - Pens in different colors, pencils, rubbers - Sticky notepads

DAY
3**Facilitator preparation**

- You should complete the Technology Vision Journey on your own to make sure you understand it clearly.
- To do this effectively, you need to understand the new technology well.
- The process towards successful adoption will contain several technical steps. In the Technology Vision Journey, each completed step towards adoption is called a milestone. Completed steps show that part of the process has been completed (e.g. tied ridges have been made).
- You also need to show the activities needed to help complete each milestone (e.g. weeding, hoeing, preparing tied ridges), and the person (woman or man) who does these activities.
- It's best to focus on three to five key milestones.
- Good preparation will help you understand what to expect from the process and enable you to guide the participants effectively.
- It's important not to suggest challenges and solutions to the participants, but you can ask open questions to help open up ideas for issues to be discussed. Some examples of questions, with space for your comments, are given in the Annex.

The Technology Vision Journey provides a method for farmers to use when considering whether or not to adopt a technology.

Steps

Select the technology

Remind participants that the Technology Challenge Action Tree (Tool 4) on day 2 talked about challenges to successful adoption, and showed ways to help people find solutions to them.

This tool, the Technology Vision Journey, focuses on creating a vision of successful technology adoption. It talks about the actions that need to be taken to reach the vision successfully.

In this session, you will take as an example the technology that has been discussed throughout. However, explain that participants should make notes in their notebook. This will help them draw a tree later for another technology they may wish to adopt.

Draw the vision

Put up the flipchart paper. Draw a circle at the top right-hand corner of the paper. Tell people that this is your vision. Inside the circle, draw what you want to achieve (in this case, what the successfully adopted technology looks like).

Give the circle red spikes to make it shiny and attractive, like the sun.

Discuss with participants what successful adoption of the technology will look like (*e.g. three goats; seven bags of beans*). This should be a dream, but it should also be realistic.

Ask a volunteer to draw a picture of the vision inside the circle. They should fill the entire space.

Draw the current situation

On the flipchart, draw a smaller circle at the bottom left corner of the paper. This represents the current situation in the household without the new technology.

Draw the present status of the household without the technology (*e.g. just one goat; three bags of beans; a different crop/livestock*)

Link the vision to the current situation

Join the circles with two lines that touch at the top and bottom edges of the two circles. This is called the Vision Journey.

Agree on the milestones to successful adoption

Ask participants to discuss among themselves the key steps in adopting the new technology. What needs to happen from beginning to end? These steps are called milestones.

Ask participants to call out the steps/milestones. Once these are agreed, ask volunteers to draw a symbol for each one on sticky notes.

The volunteers should then come up and put the milestones in order on a clean piece of flipchart paper. Once they are in order, decide on the most important milestones that must be completed before the farmer can move to the next step. Aim to have three to five milestones. Add timings, for example:

- the tied ridges are finished (XX month/week); the maize is sown (XX month/week); maize is sprayed (XX month/week); maize is harvested (XX month/week)
- the chicken coop is finished; the chicken food is purchased; the broilers are ready for sale
- the cross-breed heifer is purchased; the cow is pregnant; the calf is born.

Now, draw ovals at equal intervals along the Vision Journey, between the present status and the vision. The number of ovals corresponds with the number of milestones identified.



Agree on opportunities that can be mobilized for adoption

Draw a smiley face in the top left of the flipchart paper. This represents opportunities that farmers can use to adopt the technology successfully. The top half of the paper above the Vision Journey is for drawing opportunities.

Ask participants to discuss among themselves:

- opportunities women can take advantage of when seeking to adopt the new technology
- opportunities men can take advantage of when seeking to adopt the new technology.

Ask for volunteers to come up and draw the opportunities, and to explain them as they draw. The most important opportunities should be close to the top line of the Vision Journey. The less important opportunities should be further away. Ask volunteers to stick to the color coding when drawing:

- opportunities for women in red
- opportunities for men in blue
- opportunities that are common to women and men in green.

Agree on the challenges that must be overcome

Draw a sad face in the bottom right corner of the paper. This represents the challenges to adopting the technology which must be overcome. The bottom half of the paper below the Vision Journey is for drawing challenges.

Ask participants to discuss in pairs or small groups:

- challenges women are likely to face when seeking to adopt the new technology
- challenges men are likely to face when seeking to adopt the new technology.

Ask for volunteers to come up and draw the challenges, and to explain them as they draw. The most important challenges should be close to the bottom line of the journey from the current situation to the vision. The less important challenges should be further away. Ask volunteers to stick to the color coding when drawing:

- challenges for women in red
- challenges for men in blue
- common challenges (*e.g. weather*) in green.

Complete the milestones

Add drawings for each milestone. Each milestone shows a finished step that must be completed before the next step can be taken.

Agree on the key activities needed to complete each milestone

Ask participants to discuss in pairs or small groups the activities women are likely to conduct to reach the first agreed milestone.

Ask participants to discuss in pairs or small groups the activities men are likely to conduct to reach the first agreed milestone.

Ask them to call out these activities. When the group has reached an agreement:

- Ask women to come up and draw women's activities in the space between the current situation and milestone one. They should use a red pen.
- Ask men to come up and draw men's activities in the space between the current situation and milestone one. They should use a blue pen.
- And ask a volunteer to come up and draw activities that women and men do together. They should use a green pen.

Continue this for the remaining three or four steps.

Analyze the Technology Vision Journey

Guide the participants to analyze their Technology Vision Journey.

Ask for general reflections from women and from men.

Then, engage the participants in a deeper discussion on how they can overcome the challenges for women and men. What needs to happen in order to be effective?

Discuss the best ways for women, and men, to mobilize the opportunities.

Put the Technology Vision Journey into participants' notebooks

- On a clean piece of flipchart paper, recap the steps for creating the Technology Vision Journey. Ask participants to draw the steps in the back of their notebook.
- Go around and check they have drawn the journey correctly, that they have labelled each section with a symbol or words, and that they have captured the order of the steps.
- This version will be used to help them create their own Technology Vision Journey at home. They can use this version to share with other households.

Wrap up

Ask each participant to say in one sentence what they have learned during this exercise.

Remind them that the Technology Vision Journey they have been working on is a group Vision Journey. It may not be relevant to their own household.

They should take the Technology Vision Journey home with them. They can work together with their spouse and other family members to make their own Vision Journeys whenever they are thinking about adopting a new technology.

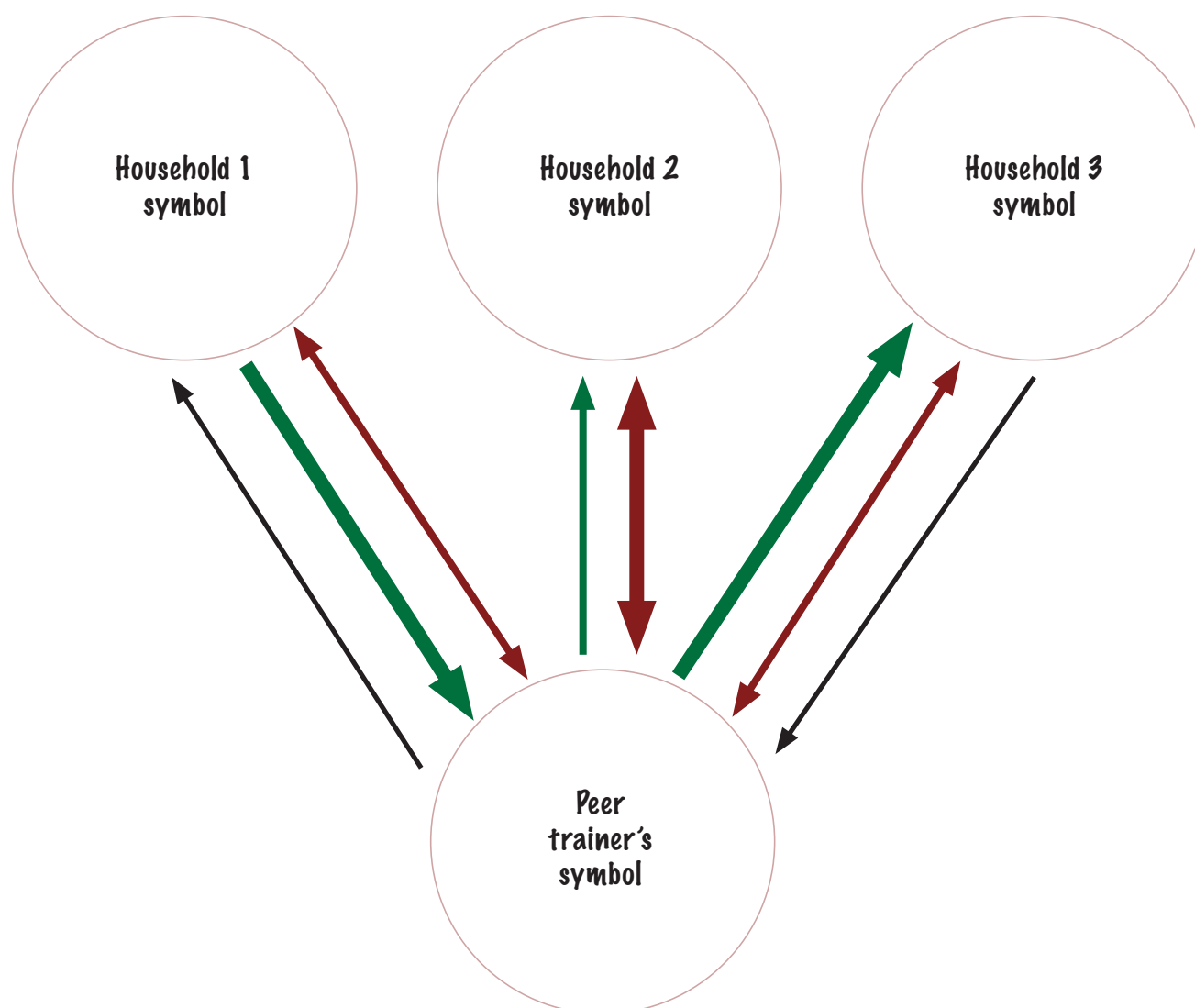
This method can be used for any vision an individual woman or man may have. Children can also use it to help them make plans for their future. The whole household can use it as well to create a shared vision (e.g. to buy land, or improve their house).

Remind participants to think of ways they can help each other to be successful in creating their Vision Journeys.

Remind them that achieving balance in their household, as illustrated by the Gender Balance Tree (Tool 2), can help them to achieve their Vision Journeys.

- ***Remember: don't take sides or to help participants make judgments. If done correctly, their finished Technology Vision Journey will help people find the best way forward for them.***



TOOL 6**Snowball Peer Training Map**

Arrows signify direction(s) and strength of relationships:

Black = power relationship
 Green = financial relationship
 Red = affectionate relationship

Thickness of arrow represents strength of relationship

Figure 18: The Snowball Peer Training Map

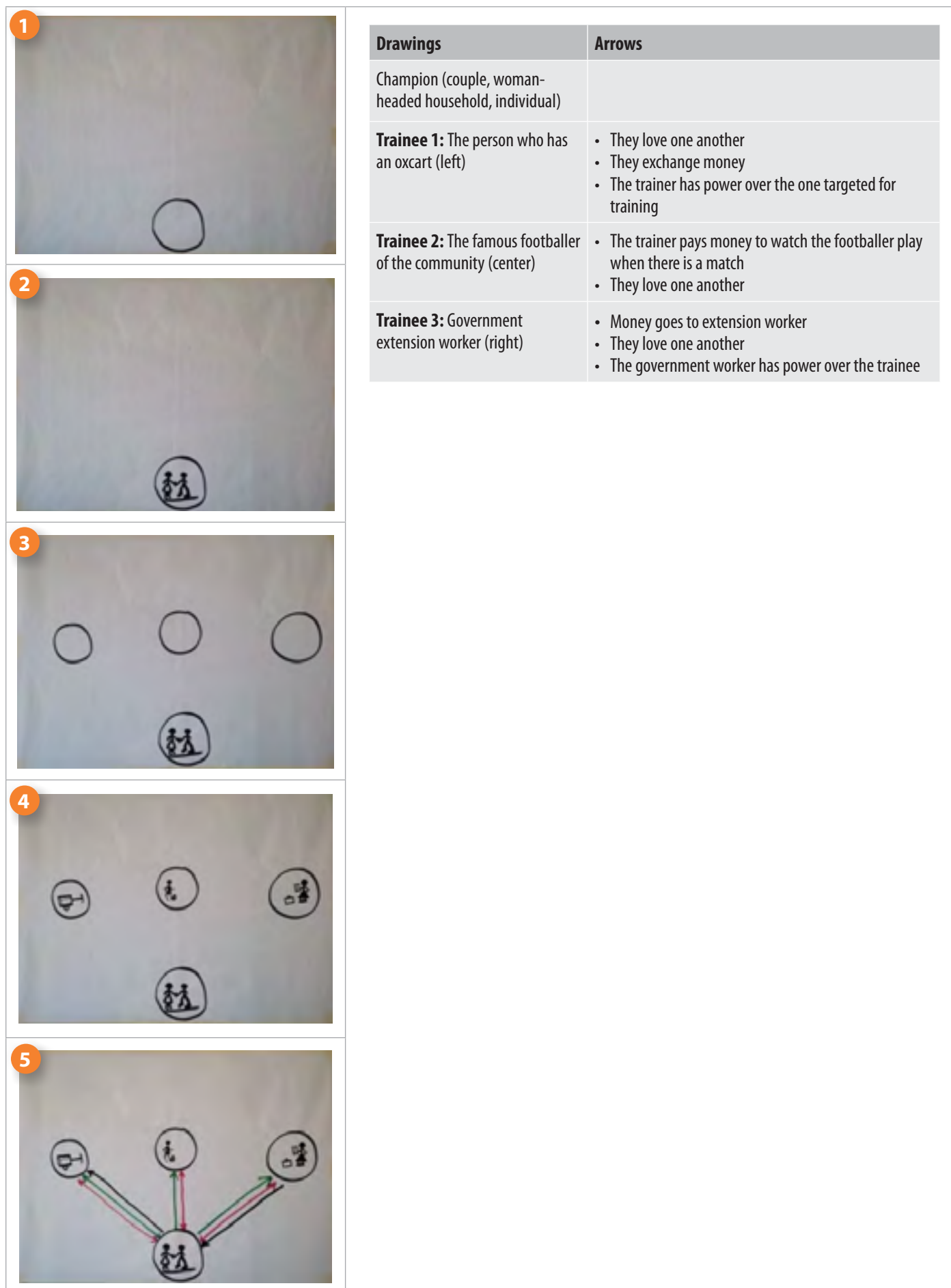


Figure 19: Building up a Snowball Peer Training Map (example content only)

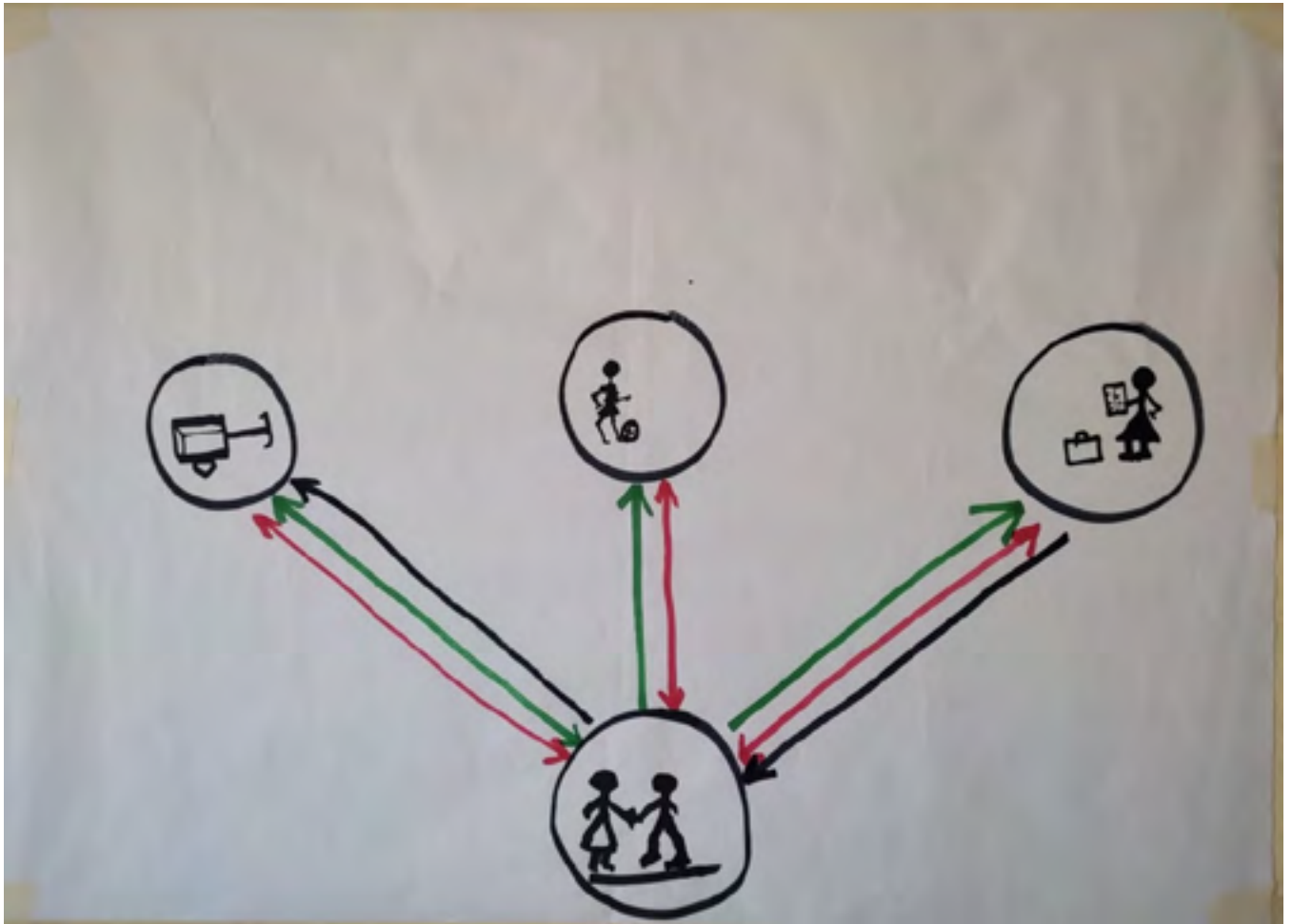


Figure 20: The Snowball Peer Training Map

DAY
3**Afternoon session (Village A & B)**

➤ Session objective	- Help trained farmers share tools with people in their community using robust selection criteria. - Support technology adoption processes through sharing tools. - Allow trainers and extension workers to track peer replication in the community. - Support the development of farmers as trainers in their own and in other communities.
➤ Session outcomes	- Couples, women heads of household, and individuals are effective at sharing the tools with others. - A critical mass of community members are trained, contributing to permanent changes in gender norms towards more equality. - Farmers adopt a wider range of technologies and improve their livelihoods.
➤ Methods	- Participatory training
➤ Time	- 60 minutes
➤ Arrangement	- Participants seated in pairs (couples, single heads of household with the adult they have invited)
➤ Resources	- Flipchart - Flipchart pens - Masking tape (or flipchart stand) - Pens for each participant - Participants' notebooks and pencils*

* It is important to note - and explain to participants - that, in this tool only, the pen colors have different meanings to those used elsewhere. This is because we only have four colors to work with. Here the arrows are about relationships between people, and do not describe gender.

DAY
3**Facilitator preparation**

- You should complete the Snowball Peer Training Map on your own to make sure you understand it well. You should also reflect on the value to participants of peer sharing, so that you can introduce the aim of this tool.
- The peer sharing that is encouraged through this tool is voluntary, and you should encourage participants to think about the value of peer sharing to themselves as individuals. Sharing with others can reinforce their own understanding of the tools, and it can strengthen their relationships with those people they choose to share with. It can also help them to move towards their desired vision more quickly, because in developing their networks and helping others, they benefit in turn from relationships of solidarity and sharing ideas. Peer sharing also develops their training and leadership skills.

The Snowball Peer Training Map is a peer sharing tool. There is no ideal number of individuals, couples, or households to train! Trained farmers may train varying numbers of other farmers, or none. While three households or individuals are suggested, some people may train many more, and others may train fewer.

Steps

Explain the purpose of this tool

Explain that the Snowball Peer Training Map helps farmers to train other people, in their homes and in the community, in the tools they have learned. They can teach individuals, couples or whole households.

Point out that training others has several advantages: it reinforces their understanding of the tools; it strengthens their relationships with the people they choose to train; and it can help them to achieve their goals more quickly by identifying sources of support in the local community.

Peer trainers should teach others using the generic tools that they have recorded in the back of their notebook. They should not share their own completed versions of the tools. It is important that everyone they share with thinks through their own analysis, and does not simply copy what the trainer has put. The participants receiving training should in turn record the generic steps at the back of their notebook, and so on. This will ensure that the tools remain constant as the methodology spreads (Mayoux, 2014).

Help peer trainers to understand clearly the pyramid peer-sharing concept and pass it on as they share the methodology (Figure 21).

Participants who attend the first training course on a tool are called Champions. They are asked to share the tools they have learned (and useful tips) with other households (individuals, couples, whole households). These people are called Level 1 peer trainers.

- *Champions can train as many people, or households, as they like. They can aim for two or three, or train five or more. It's up to them.*

If the Champions are satisfied with the progress of the Level 1 trainers in learning and applying the tools, they can request those Level 1 trainers to each train other households in the tools.

- *Similarly, Level 1 peer trainers can teach one, or two, or as many individuals and households as they like. Just one household is fine – five is also fine – or more!*
- *The same principle also applies to Level 2 and Level 3 peer trainers.*

At this time, the Champions teach the Level 1 peer trainers the Snowball Peer Training Map. They also ensure that Level 1 trainers have the diagrams of the tools and the steps involved in the back of their notebook, as a reference.

This process continues as Level 2 peer trainers offer training to Level 3 trainers, and so on.

Trainers at all levels can train as many people as they want. Advise peer trainers to use the Snowball Peer Training Map to keep track of who they train, and why.

Throughout the process of peer replication, the Champions need to regularly check the quality of the training and mentoring process, and are generally available to answer questions and provide support.

Champions should maintain a record in their notebook of the peer training process as it unfolds.



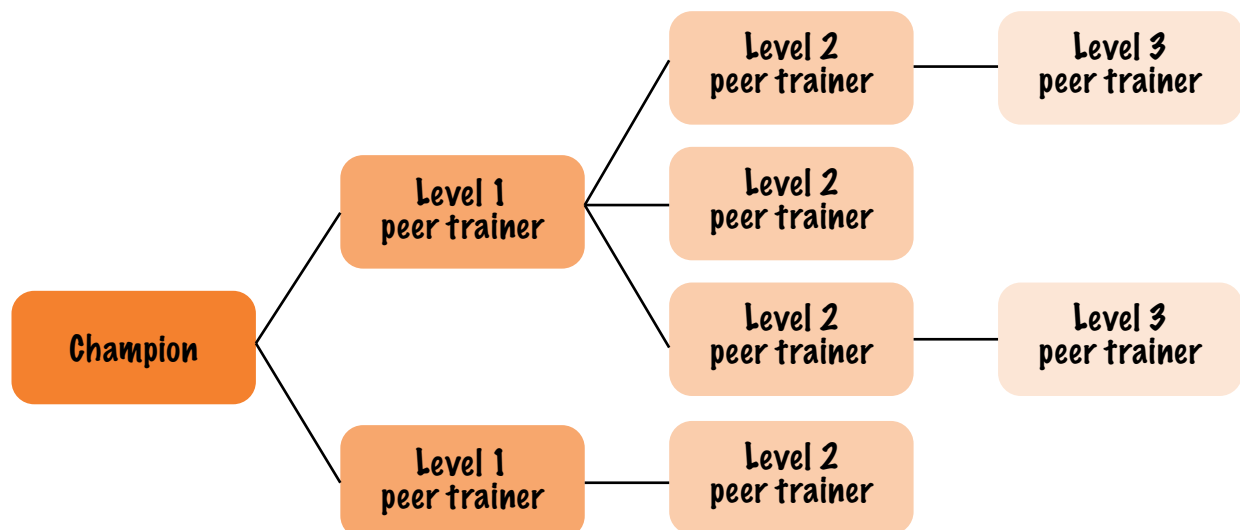
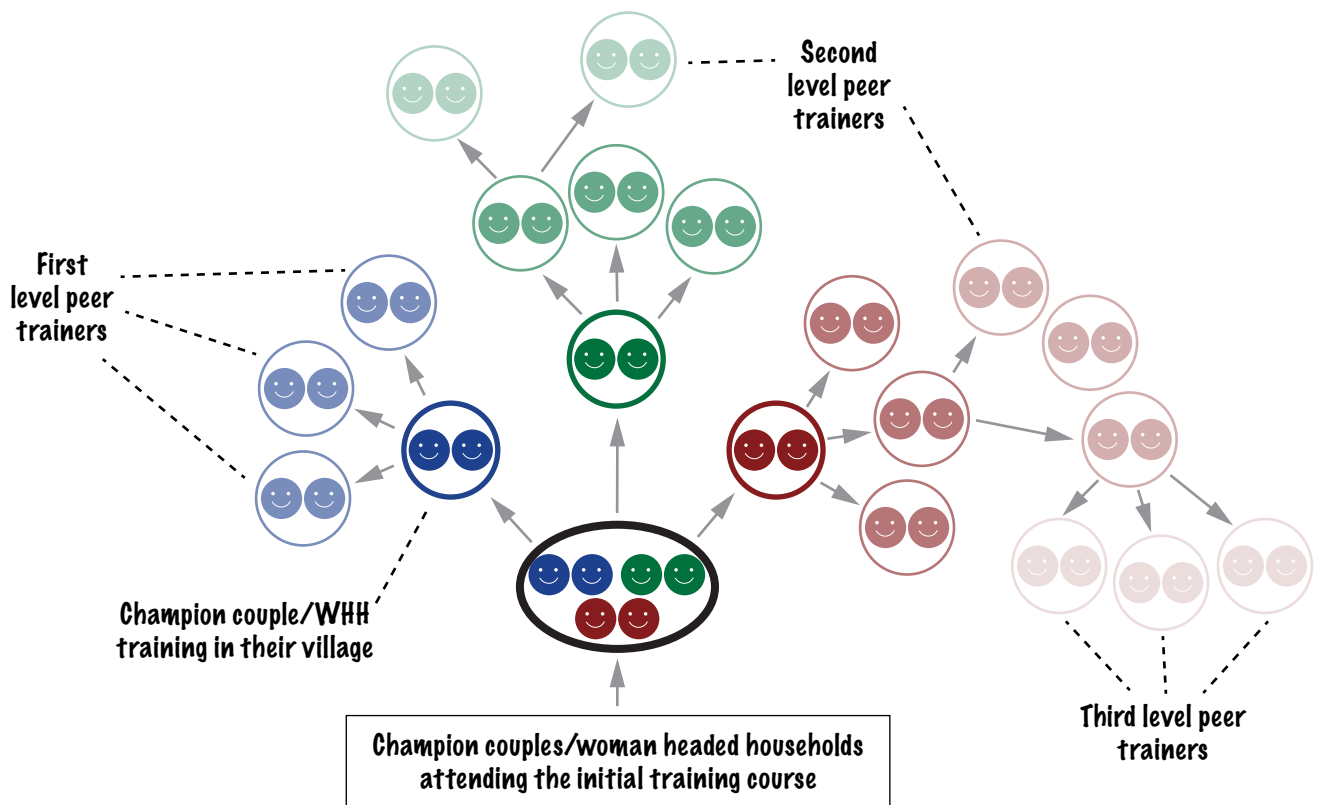


Figure 21: Pyramid peer sharing concept

Draw the Snowball Peer Training Map

Now show participants how to draw the Snowball Peer Training Map.

Draw a circle at the bottom center of the page. Inside the circle, draw a symbol that represents you as an individual, or a couple, or a woman-headed household. This could be faces, or something that represents you (your symbol from the Symbols Game, or another one of your choice).

Draw three circles above the first circle, leaving some space between them and the first circle. These circles represent the three households you want to train.

Select households for training

Now, ask the participants to think carefully about who they want to train, and why.

Explain that it is good to choose your households according to selection criteria. These criteria can be divided into three categories – power, money and affection (Figure 22). It is important to note that there may be only one type of relationship with another household. It could be just money, or just affection. In other cases there may be a relationship of power and affection, or affection and money, for example.

Power	People who have power over you	Powerful people may be able to help you through supporting the changes you make in your life as a consequence of using the tools. They can help by encouraging you with positive words and supporting you in the eyes of the community, or through lending you resources (like an oxcart) that you need. If powerful people are not on your side, they may cause you to fail.
	People who you have power over	Your reason for training less powerful people might be that you wish to help them to become stronger in their lives and livelihoods.
Money	People you give money to	If you give people money, training them in these tools may help to make them financially independent of you. In time, you can stop giving them money.
	People who give money to you	If people give you money, you can start thinking of how to make that relationship more valuable for them.
Affection	People you love and care for, and who love and care for you	You can strengthen the relationship by providing them with training via the tools.

Figure 22: Selection criteria for choosing households for training

Relationships between households are very complex, but it can be useful for peer trainers to think about a key aspect of their relationship with another household.

It’s also a good idea to start with households that they think will be receptive (people they love or feel affectionate towards), so that they can build their confidence as a trainer.

If a household isn’t receptive, the trainer shouldn’t worry, but just move on to the next household they plan to train. They can always try again at a later date.



Participants can also choose to train institutions, such as schools, religious institutions, producer groups, and so on. This is very helpful for scaling. In these cases, peer trainers may want to come together to conduct the training.

- *Snowball Peer Training Maps may contain private information, and they do not have to be shared with anyone in the room.*
- *If Champions want to train more than three households or institutions, that's fine provided quality is maintained. They can also choose to train fewer than three households or institutions. It's up to them – each choice is valid. Remind them they can agree to train an institution together.*

Now draw symbols to represent each household – or institution – that will receive training, or write their names.

Draw the relationships

Using arrows of three different colors (black, green, and red), assess the relationships that exist between you and the couples or households that you want to train.

Decide on the direction of power and draw your arrow accordingly. The direction of an arrow shows the main direction of flow of the relationship being assessed. Arrows can be two-headed (equal relationship), or just have one head to show an unequal relationship. In this case the head points to the couple or household with a more disadvantaged position.

The thickness of an arrow shows how strong the relationship is.

Black = power relationship

Green = economic relationship

Red = affectionate relationship

You can reflect different aspects of the relationship using by arrows in different colors, as some relationships combine several aspects of the criteria.

Hand over to the participants

Now, ask the participants to draw their own Snowball Peer Training Map. They can draw themselves and the first level of people they want to train. This could be one, two, or three people to start with.

It's best if they start with people they are close to (affection). This will make it easier for the participants to gain experience. Later, they can try to share with people with whom they have a financial or power relationship.

Go around the room and check they are doing this correctly.

Participants do not need to share their Snowball Peer Training Maps unless they want to. These contain private information.

Put the Snowball Peer Sharing Map into participants' notebooks

- On a clean piece of flipchart paper, recap the steps for creating the map. Ask the participants to draw the steps in their notebooks.
- Go around and check they have drawn the Snowball Peer Sharing Map correctly, that they have labelled each section with a symbol or words, and that they have captured the order of the steps.
- This version will be used to help them create their own Snowball Peer Sharing Map, and they can use this version to share with other households.

Wrap up

Ask the participants for reflections on this exercise, and encourage them to raise any questions or concerns they have about peer sharing.

Explain that they don't have to train each household on all the tools at once. They can take it step by step, but it's important to follow the order of Tools 1–6 as they learned them in this workshop, as each one feeds into the next.

They should use the guides to the tools that they made in the back of their notebook, rather than sharing their completed diagrams with trainees. This is so that trainees are not influenced by diagrams that have already been populated with symbols.

Encourage participants to keep a record in the back of their notebook of who they share with (Level 1 peer trainers), and who these Level 1 trainers share with in turn (Level 2 peer trainers). Remind participants that they can take a support role with the Level 1 peer trainers, and should be available to answer questions as they share with others.

If there is a plan in place for monitoring peer sharing (*e.g. a future meeting where they will share the records in their notebooks with technical staff*); or any planned incentives to motivate voluntary peer sharing (*e.g. T-shirts for Champions, or a plan to "graduate" to a more formal paid training role in other communities*), you can share these with the group.

Level 1 and higher level peer trainers may have questions about how to obtain pens and notebooks, and whether they will be paid for. Facilitators should be aware that these questions may arise, and should find out whether or not the project will provide materials.

Encourage!

Most importantly, encourage participants to continue to use the tools in their own lives, and to consider how they can move towards greater gender balance and shared decision-making about adoption of technologies, and other farming and household matters. The more they implement the tools, the more effective they will be at training others, as they will be able to talk about the benefits of the tools from their own experience.

- *The training course is now at an end. Please wrap up in an appropriate way. You may want to conduct a short participatory evaluation. And conclude in a fun way with all the participants.*

PART 2

THEORY — DEVELOPING THE TOOLS



Theory – Developing the tools

This manual is based on fieldwork by Africa RISING in 2021, using and developing the tools with farmer communities and expert national facilitators, extension services and others in Malawi and Tanzania.

It provides a suite of specially developed gender-transformative decision-making tools which can be introduced as an integral part of technical interventions. The tools create spaces for discussions which allow farmers to engineer the conditions for women and men to have an equally effective and respected voice in decision-making processes in the home and in the field. Social scientists are expected to lead the facilitation in close collaboration with technical experts. The tools are designed to be self-taught and can be used by extension workers from the government, civil society, the private sector, and other development partner staff who work directly with farmers.

The manual is based on two elements that are designed to work together: peer knowledge exchange and learning, and tools from the Gender Action Learning System (GALS) toolkit.

Peer knowledge exchange and learning

The manual is structured around a three-day participatory workshop involving two farmer communities. The farmers from two villages work with a specific technology as an example to help them understand how to use the tools in their own households. One community (Village B) is familiar with the technology and is thus able to share peer insights with participants in Village A.

National and local partners, such as the extension services and potentially NGOs or other partners, should be actively involved. They can help to set up the fieldwork, provide training to participants in Village A about the new technology, be trained in the tools themselves, and later provide training on their own as part of scaling the approach.

The non-GALS-based tools in this manual comprise farmer exchange visits focused on viewing and discussing the selected technology in the field, supported by planning and discussion sessions to help farmers prepare for their exchange visits.

Gender Action Learning System

The tools in this manual are inspired by the Gender Action Learning System (GALS) toolkit. GALS was originally developed in coffee-growing communities in Uganda through the strong participation of local coffee cooperatives, Linda Mayoux, and development partners including IFAD, OXFAM Novib, HIVOS and others, and is now being used globally.

The goal of GALS is to address gender and social injustice in economic development efforts. It is a people-led empowerment methodology which aims to help women and men gain more control over their lives; assist them to realize their personal, family, and organizational goals; and improve their livelihoods. GALS uses simple mapping and diagramming tools for visioning and planning to empower men, women, and youth to make changes in their lives. GALS particularly targets the most poor: people who need the training most. It is based on a set of principles, tools, and stages.

GALS can be used at the individual and household level (this remains its most common application), with farmer organizations, and with private sector companies. The extension services, NGOs, and donor agencies initiate GALS in a community or organization. It is then taken over and replicated by people themselves simply by training others through a peer learning process. GALS relies entirely on drawings, which facilitates rapid spread among non-literate as well as literate people.

GALS can be adapted for almost any issue, including consolidating livelihoods, encouraging technology adoption, bolstering food and nutrition security, improving financial services, working with value chain actors across value chains, creating better governance, strengthening reproductive rights, tackling gender-based violence, and in conflict resolution efforts. GALS can be used for research, provided farmers are involved in analyzing the data and acting upon it (with support provided as necessary). GALS can be implemented on its own, or it can be integrated into the work of organizations (GAMEChange Network 2022; IFAD 2022).

Promoting joint intra-household decision-making through household methodologies

Household methodologies provide a potential mechanism for strengthening women's rights over assets and income. These methodologies are built around a vision for the household's future; a gendered SWOT (strengths, weaknesses, opportunities and threats) analysis; and an action plan. GALS tools use drawings, making them easy for low-literate individuals to use. A study of the GALS household methodologies conducted in Malawi using controls demonstrated a significant shift towards sharing of on-farm tasks and household tasks, and joint realization of the benefits from agricultural produce in the majority of GALS households (Farnworth et al. 2018). These households are able to build up portfolios of assets, including livestock, houses, ox-carts, and land, in a short period of time, unlike non-GALS households which find it hard to develop assets. Respondents in GALS households, including woman-headed households, report an increase in social standing and participation in community life. In both GALS and non-GALS households, men and women agree that men continue to dominate marketing and are final decision-makers. However, financial transparency and intra-household agreement on expenditures characterize most households with GALS participants.

Adapted GALS tools in this manual

The GALS tools used in this training sequence are shown in Figure 23. The Technology Challenge Action Tree and the Technology Vision Journey are new adaptations of the tools, explicitly designed to integrate gender-transformative interventions with technical interventions. The Gender Balance Tree and the Snowball Peer Training Map have been adapted to build in insights from the fieldwork, including from existing users in a farming community in Chiwamba in Malawi, which has been using and improving the tools since 2013.

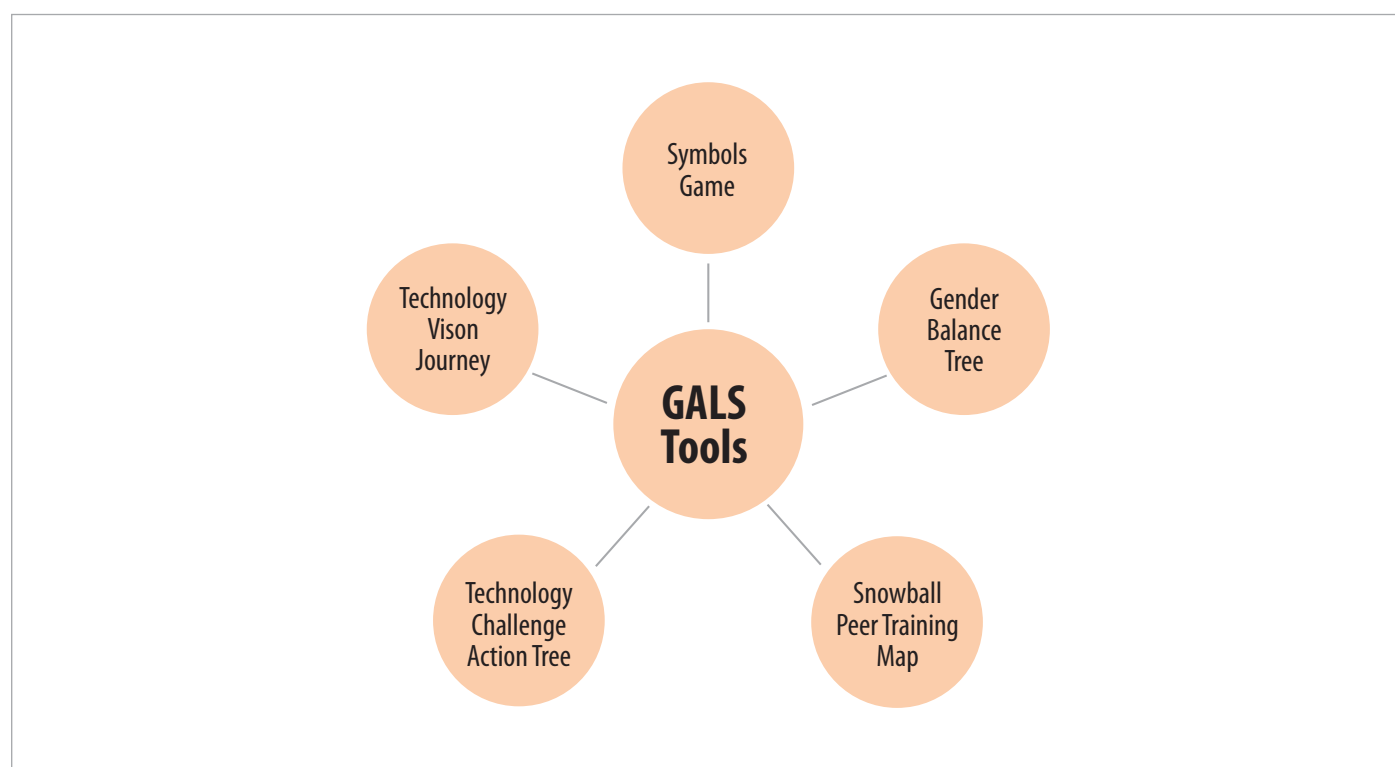


Figure 23: The GALS tools in the Africa RISING manual

The Gender Balance Tree (Tool 2) is particularly adept at demonstrating associations between women's labour and other contributions to the household, and their ability to secure benefits in the form of expenditure decisions and asset creation. The labour contributions – paid and unpaid – of women and men are depicted, by farmers themselves, in the roots of the Gender Balance Tree. Expenditure decisions taken by women and men are drawn in the branches of the tree. Assets belonging to women, men, and jointly are presented to the left, right, and middle of the trunk. Every Gender Balance Tree is different because it is tailored to the specific household (or community) creating it, and therefore is very helpful in enabling farmers to develop strategies for balancing their own tree at all levels. The research team slightly adapted the standard Gender Balance Tree by creating a space for genuinely jointly held assets to be depicted.

The Technology Challenge Action Tree (Tool 4) asks farmers to identify the benefits they expect from a potential new technology before asking them to identify gender-specific challenges – for both women and men – that they are likely to face in the adoption process. This is followed by an exercise requesting women and men to develop solutions together at the household level – and community level if necessary – for each other's gendered challenges. This is a valuable decision-making tool that assists farmers to decide whether or not they are able to meet the conditions for successful technology adoption. As part of this process, they have the opportunity to decide which challenges they can transform into opportunities through collaborating with each other.

Developing the manual

The Africa Research in Sustainable Intensification for the Next Generation ([Africa RISING](#)) program (2011–22) comprised three regional research-in-development projects supported by the United States Agency for International Development (USAID) as part of the US Government's Feed the Future initiative.

Africa RISING acknowledged the importance of making sure women participate effectively in creating more sustainable farming systems. The first phase of the program focused on developing technical innovations (new crop varieties, improved agricultural practices, better machinery), and the second phase had a stronger focus on social innovations. It asked questions such as: How can we get the technical innovations we are developing into use by women and men farmers? How can we train farmers in good decision-making tools to help them select the best technologies for themselves? In particular, how we can make sure that women farmers can participate in decision-making around whether to adopt new technologies?

This led to the ambition of creating this manual of gender-transformative decision support tools for farmers to assess technology-associated risks and opportunities. The manual integrates training on gendered decision-making tools with training on agricultural technologies.

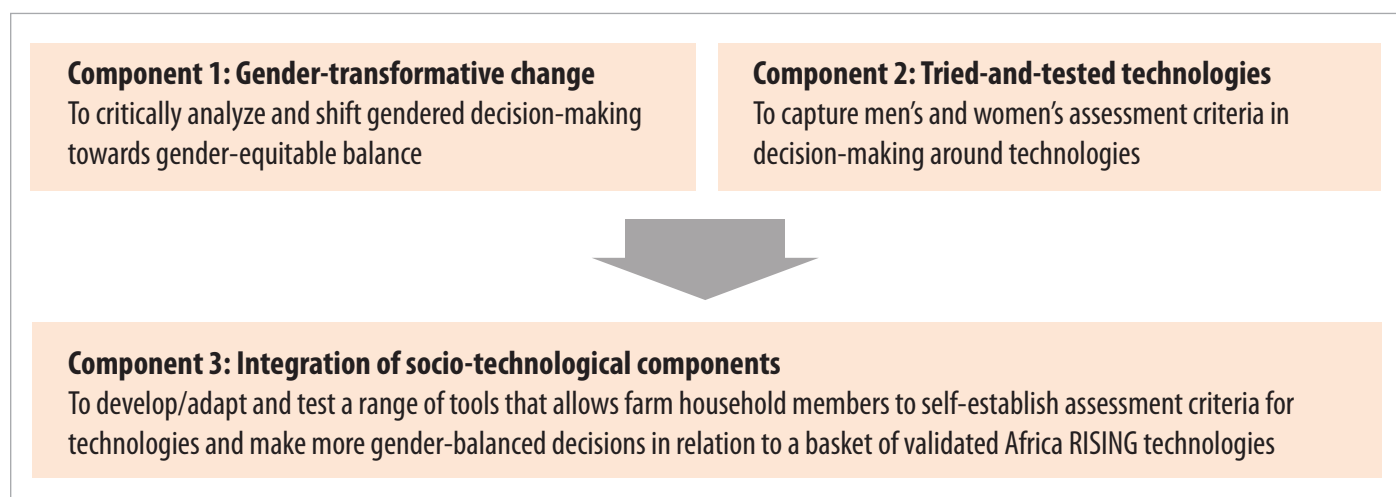


Figure 24: Action research process to create this manual

Figure 24 illustrates how the technological focus and the gender-transformative focus came together during development of the tools and associated action research.

The key questions guiding development of this manual are:

- How can women participate more effectively in household-level decision-making around whether or not to adopt new agricultural technologies?
- What criteria do women and men farmers use in decision-making for or against technologies? How can these be captured by farmers themselves to help them take better decisions and, if necessary, to create the conditions to make their decisions effective?
- Can selected GALS tools be adapted to help women and men take better decisions around which technologies to adopt? (Figure 25).

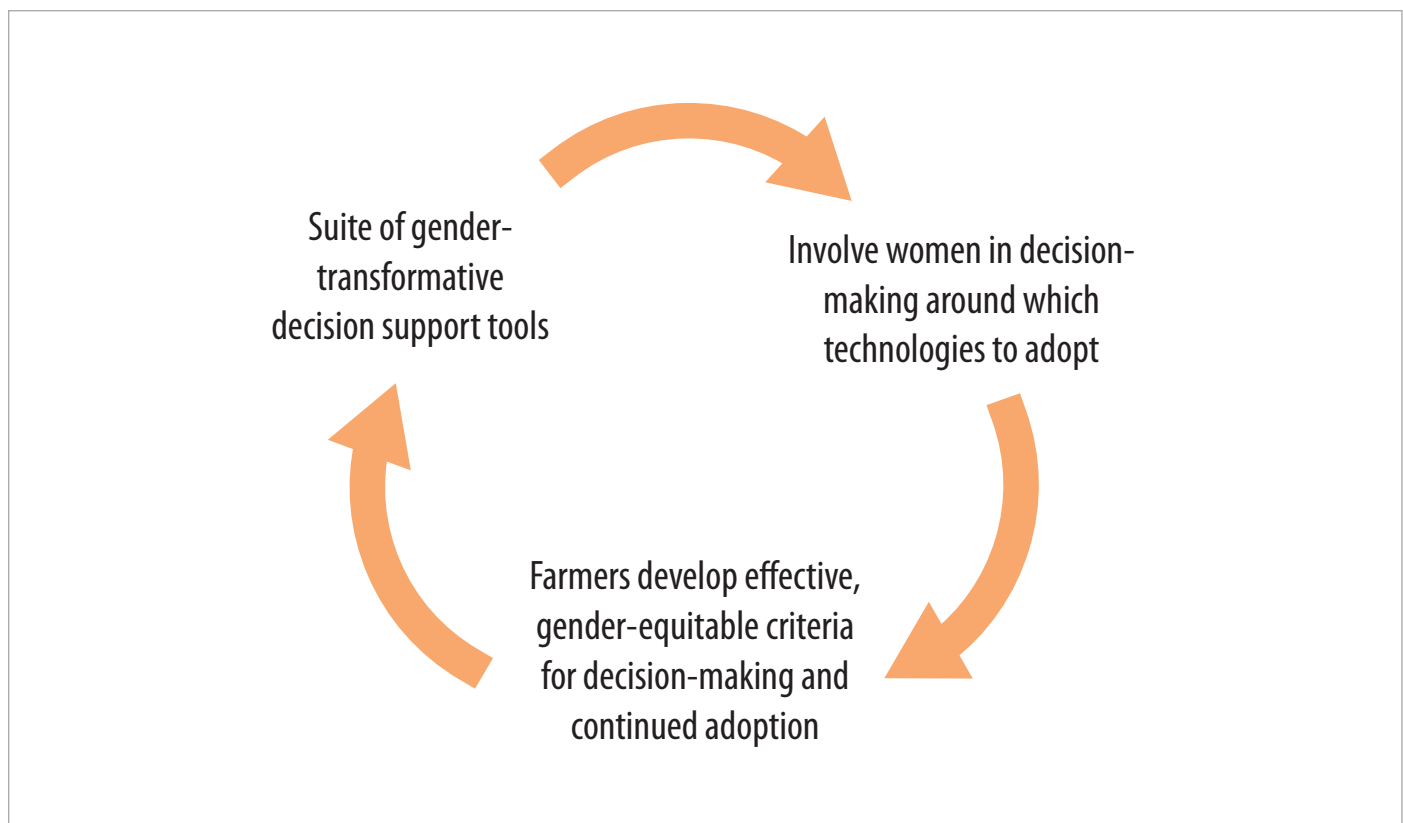


Figure 25: Creating decision-support tools for farmers

To develop the manual, Africa RISING spent several months designing and testing the decision-making tools. The research team was multidisciplinary, with members contributing as follows.

- **Technical experts:** choice of technologies and communities, co-development of training concept and technical training parts, information on risks and opportunities of technologies, co-facilitation of technical training parts, contribution to analysis of training evaluation, co-development of manual.
- **Social scientists:** research on household decision-making and farmer assessment criteria, development of training concept and gender tools for piloting, co-facilitation of gender tool exercise, training evaluation, co-development of manual.

After initial tool development, over four weeks in November 2021, training workshops were held with skilled national facilitators and in farmer communities in Malawi and Tanzania. The national partner in Tanzania was the LEAD Foundation; in Malawi, the Government extension services. The team included scientists from University of Dodoma (Tanzania), Tanzania Agricultural Research Institute (Tanzania), and Michigan State University (Malawi). The entire research team from both countries collaborated in writing and finalizing the manual.

Rationale for the approach

Technical training is frequently provided separately from social interventions aiming to strengthen behavioral change. Yet in reality, technologies enter environments that are evidently gendered. This affects the ways in which new technologies are delivered by trainers, and the ways in which new technologies are understood and worked with by farmers. Men-dominated decision-making on technology adoption runs like a common thread through Africa RISING data obtained from purposive and representative surveys regarding adoption of technologies, including forage choppers, maize shellers, and soil and water conservation practices (Fischer et al. 2018; Fischer, Kotu and Mutungi 2021). The adoption process can be broken into three phases: awareness, tryout, and continued adoption (Theis et al. 2018). Women's awareness is restricted by information asymmetries due to poorer provision of information. Tryout is limited by women's poorer access to resources of all kinds – physical, financial, social capital, etc. Continued adoption is a critical yet less researched phase: "Farmers decide, based on their own experience, whether the returns from the technology relative to labour and inputs requirements are worth its continued use" (ibid.: 672). Theis et al., find that male household heads are the most likely to secure on-going benefits.

Other studies support these findings. In Ethiopia, O'Brien et al. (2016) compared the ability of women in men-headed households to adopt and utilize quality protein maize with that of male household heads. They found lower adoption rates among married women than their spouses. The reasons included women's weaker access to agricultural extension, lower awareness of quality protein maize, and less input into decisions around key aspects of adoption, production, and marketing. A second Ethiopian study (Farnworth et al. 2018) showed that women innovators are considered to "transgress" local cultural norms of feminine behavior, and must continually negotiate a way to farm differently yet remain part of the community. Men innovators do not conform to farming norms either, but local cultural norms conceptualize men as doers and allow them the space to act differently without censure. In this situation, it is much harder for women innovators to continuously adopt.

Turning to Tanzania, Table 2 shows that when tied (box) ridges were introduced to a community, women were much less likely to be informed, to attend training, or to be involved in decisions around whether or not to establish tied ridges (Fischer et al. 2022). Continued adoption may be challenged by the fact that women are expected to work intensively on creating tied ridges, yet they are unable to secure benefits at household level that measure up to their perceptions of their input (Karanja-Lumumba et al. 2013). Fischer et al. (2018) examined women's ability to optimize outcomes across five sustainability domains, and found that women were generally less able to maximize the outcomes they want (to reduce workload, to increase their own income, to improve nutrition, etc.).

Table 2: Training and decision-making by gender among farmers experimenting with tied ridges in Kongwa, Tanzania

Who in the household ... (dual adult households only)	n	Percentage		
		Man	Woman	Adult child
Was the first to receive information on tied ridges?	49	65.3	30.6	4.1
Attended training on building and maintaining tied ridges?	59	59.3	33.9	6.8
Was involved in the decision to establish tied ridges?	53	73.6	26.4	0

Source: Fischer et al. (2022). Multiple responses were possible.

Considerable research interest focuses on understanding "jointness" in intra-household decision-making and how it associates with various desirable development outcomes. The term "joint" is ambiguous and hard to define (Acosta et al. 2019; Seymour and Peterman 2018; Anderson et al. 2017). It is preferable to think of jointness as occurring across a spectrum from low to high (Acosta et al. 2019; Theis et al. 2018). Women tend to claim higher levels of participation than men are generally prepared to acknowledge (Anderson et al. 2017), and even claim jointness in cases where they were merely informed of a decision after the event (Acosta et al. 2019). Bernard et al. (2020) found that it is important to move beyond assessing who makes a decision and assuming that this person has more bargaining power. For instance, a

woman may seem responsible for preparing meals. Yet ultimately her husband governs her choices because he assumes she will prepare the food according to his liking. They also find that being a decision-maker, whether a woman or a man, does not correlate with taking good decisions – being well informed is critical (ibid.; Kopainsky et al. 2017). Magnan et al. (2018) found that women and men have different technology perceptions and different perceptions of risk. These varying perceptions inhibit effective adoption.

When husbands acknowledge women's role in discussion processes, women appear to experience more bargaining power. "It is not clear whether this is because women have a stronger role, or because male recognition of his wife's participation is of itself decisive. If the latter is the case, then development programmes should promote greater communication between couples regarding wives' contributions" (Ambler et al. 2017: 25). Studies also suggest that the simple fact that spouses agree could indicate a more cooperative and efficient household, which in turn could lead to improved outcomes for women. A study on climate change adaptation in the Morogoro Region of Tanzania regarding women's decision-making participation found that when wives are more involved in intrahousehold adaptation decision-making, their households are more likely to plant cover crops and drought-resistant crops (van Aelst and Hoelvoet 2017). Women are not necessarily better decision-makers, but when negotiations take place different aspects and preferences can be considered – and this may lead to better decisions.

Conclusion

The tools developed for this manual support farmers in their decisions on agricultural technologies, and in finding their own solutions to the challenges they face. The tools place specific emphasis on creating room for women's participation in, and contributions to, such processes.

Men and women farmers who were involved in piloting these tools shared their experiences among themselves and with the Africa RISING team. Although some participants showed resistance to changing established man-dominated decision-making patterns in their households, many reported that they gained new insights and more balanced household relationships.

A systematic evaluation of data collected during the development of these tools is underway and will provide suggestions for further strengthening gender-transformative experimentation around agricultural technologies.

Annex

Some questions about technologies to help support the technology vision journey.

Today (current status)	
How successful has your adoption of the new technology been?	
How long did it take you to adopt the new technology?	
Has the new technology provided you with more and better opportunities?	
Do you need to invest more time, money, [other] to make sure that technology adoption is successful?	
Who is benefiting more from the technology, men or women? Why? Please provide specific examples.	
Starting point	
Who decided to adopt the new technology?	
Why was it this person?	
Did they consult their spouse?	
What benefits from the new technology did the woman expect?	
What benefits from the new technology did the man expect?	
Opportunities	
What opportunities did you utilize to help adopt the new technology?	
What opportunities did the woman identify?	
What opportunities did women act on?	
Which opportunities did the man identify?	
What opportunities did men act on?	
If there was work involved to realize the opportunities, who did the work? (men or women)	
Challenges	
What challenges did you confront when adopting the new technology?	
What challenges did the woman identify?	

How did the woman overcome these challenges?	
What challenges did the man identify?	
How did the man overcome these challenges?	
If there was work involved to overcome these challenges, who did the work? (women or men)	
Milestones	
What were the key achievements during the adoption process?	
Who monitored the attainment of these achievements? (women or men)	
Activities	
What major activities did you have to conduct to adopt the new technology?	
Who did these activities? (women or men)	
How were those activities affecting other household or farm activities (for women? for men?)	

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About Africa RISING

The Africa Research in Sustainable Intensification for the Next Generation (Africa RISING) program comprises three regional research-in-development projects supported by the United States Agency for International Development as part of the US Government's Feed the Future initiative. Inaugurated in late 2011 and currently in its second phase (since September 2016), the purpose of Africa RISING is to provide pathways out of hunger and poverty for smallholder farm families through sustainably intensified farming systems that sufficiently improve food, nutrition and income security, particularly for women and children, and conserve or enhance the natural resource base.



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