Learning modules and exercises for farmer communities

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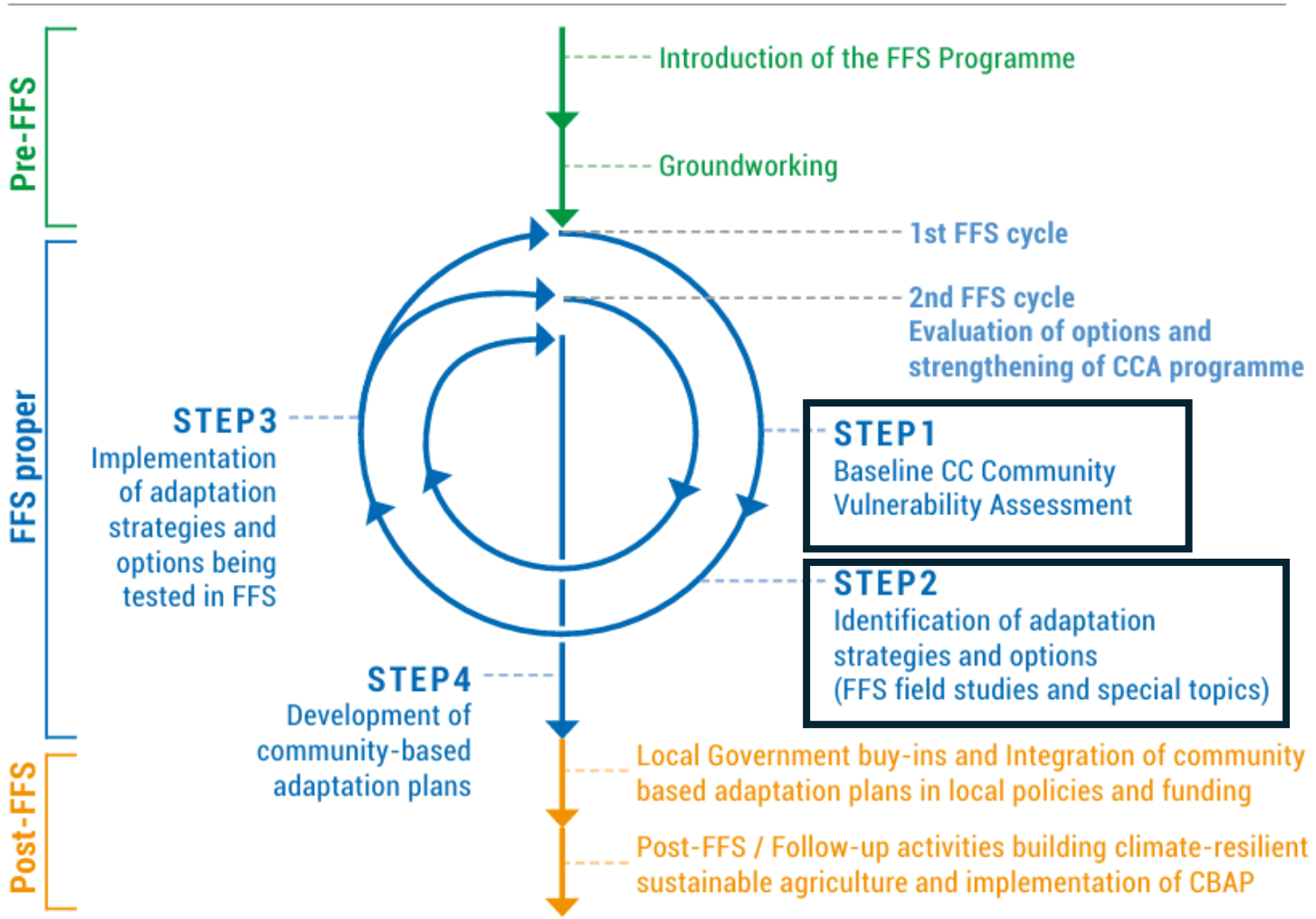
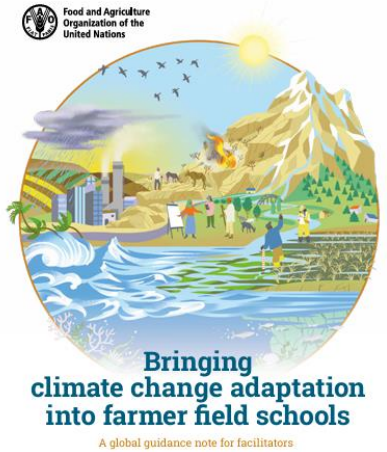
Global FFS Platform
Webinar series on Climate Change and Farmer Field School
Session 2: Equipping farmers for climate action: key concepts and tools for FFS
Date |20th February 2025| Time: 3:00pm – 4:30pm

Community-based adaptation planning process (and the community climate change adaptation programme)



Source: Authors' own elaboration

Learning modules and exercises	Use
Dialogue	Provide information to the local leaders about the programme; get support and endorsement to the programme – including access to farmers' groups and villages
Groundworking	Build trust; introduce the programme; agree on preparatory activities and identify local organization representatives including farmers' groups to join the preparatory activities



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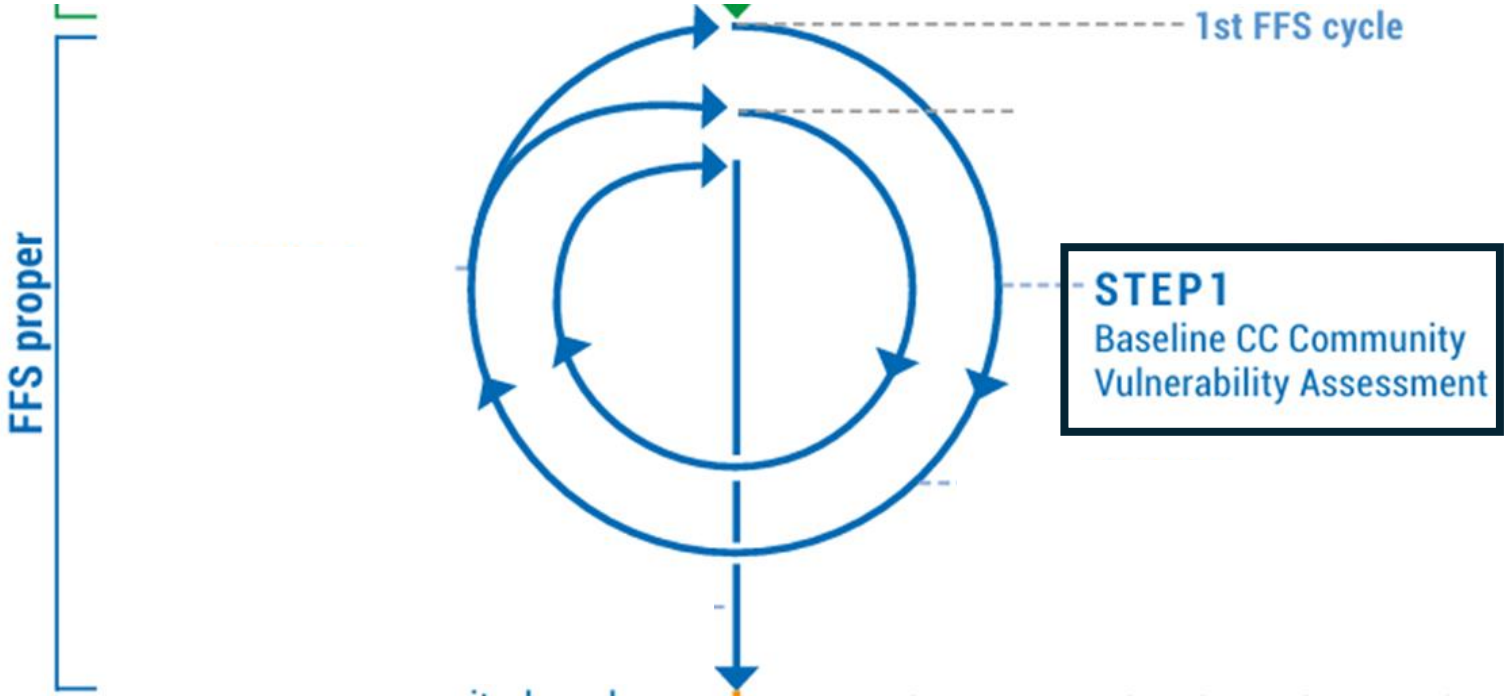


Learning modules and exercises	Use
Community resource mapping - including information on: - agricultural land indicating crops, soil types, soil fertility and water supply - location of agriculture (crop and livestock) areas in relation to water sources; different kinds of fields - aquaculture production areas (e.g. fishponds) - information about livestock production - non-agricultural and non-residential land - degraded/impacted areas in the village	Raise awareness on the issue of climate change and its impacts on local production systems; Identify locations where important farming system activities are carried out, and the weather risks the various activities are exposed to

Table 2: Weather-related production problems and how they affect livelihoods

Weather-related production problem	How it affects livelihoods	Where does the problem have its greatest impact?	When during the year does the problem occur most often?
Example: Long dry spells during the growing season	Reduces crop yields, lowers income	Upland fields south of the village	July and early August

Learning modules and exercises	Use
Weather threat calendar Step 1: farmers' observation	Develop a calendar that identifies when, within the farming season, important weather stresses most commonly occur and how these might be changing
Step 2: farmer-research observation	Discuss why information from other sources (e.g. researchers) are different from farmers' observations
Step 3: farmer-research-future calendar	Compare the past and the future to understand climate change trends and what challenges may be coming

Figure 18: Farmers' observation of weather threat calendar

Weather risk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Heatwave												
Dry spell												
Flood												

Farmers' observation

Figure 19: Farmer–research observation of weather threat calendar

Weather risk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Heatwave				X	X	X						
Dry spell					X	X	X					
Flood								X	X	X		

Farmers' observation X Research observation

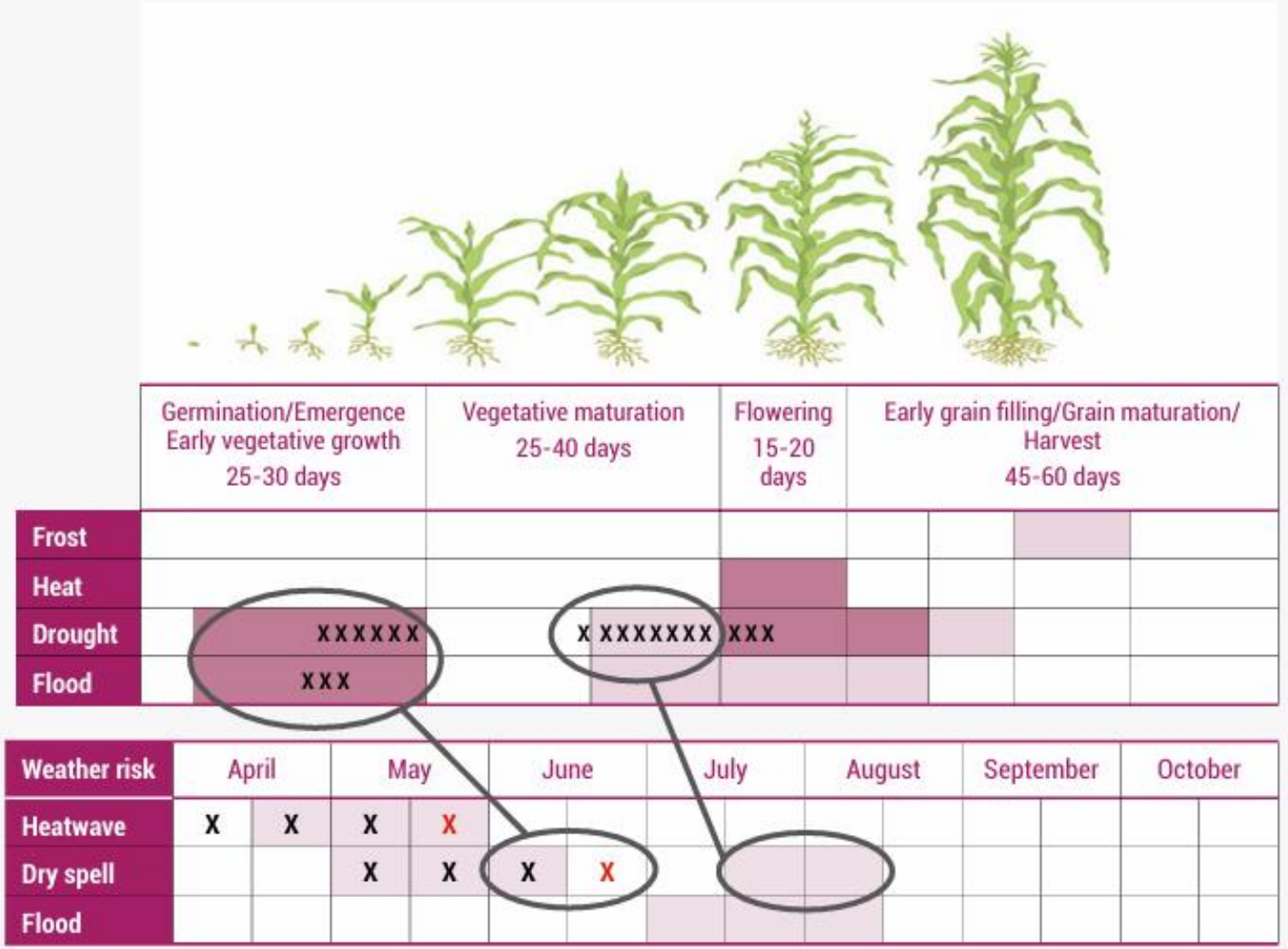
Figure 20: Farmer–research–future weather threat calendar

Weather risk	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Heatwave				X	X	X	X					
Dry spell					X	X	X	X				
Flood								X	X	X		

Farmers' observation X Research observation X Future threats

Learning modules and exercises	Use
When are local farming systems most sensitive to weather stresses Step 1: stages of plant growth and vulnerabilities to weather threats and other stresses Step 2: linking crop sensitivity and weather	Develop a timeline for each local farming system, indicating those stages of development or phases in the production cycle when these are most sensitive to different weather stresses Identify stages of crop development where the crop is particularly sensitive to a weather stress, and when that weather stress has been observed to commonly occur

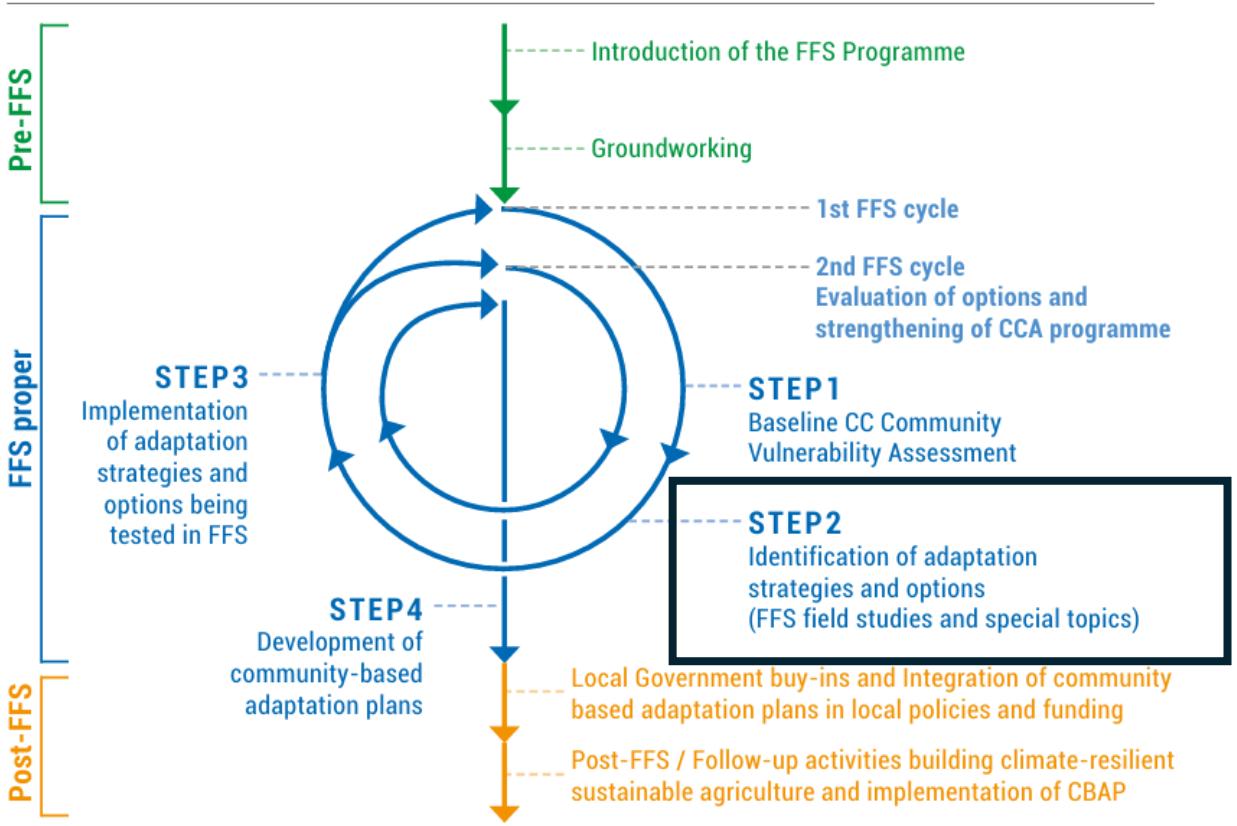
Figure 22: Linking crop sensitivity and weather



Learning modules and exercises	Use
What adaptations have farmers already made	List changes that farmers may have made in their farming practices in response to the key areas of vulnerability Evaluate how effective these changes have been in responding to the important weather stresses that have been identified

Table 3: Farming activity and product

Action taken	Weather stress	What worked	What did not work	What changes or adjustments could be made to make it work	Test or not test (Y/N) – based on feasibility, difficulty, priorities



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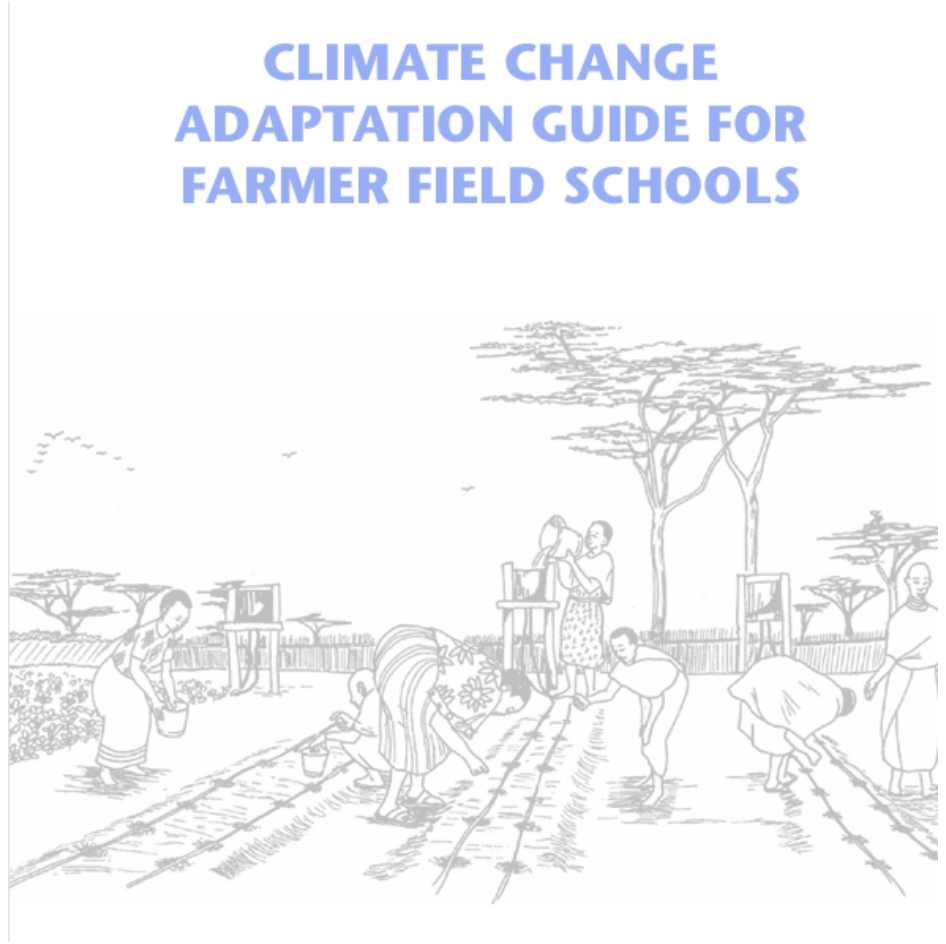

Learning Activity 3.6: Climate-smart pasture species/varieties

Learning objectives:

By the end of the session, FFS members will be able to:

1. Discuss the main pasture species and varieties available, and their productivity in the focal area
2. Identify the most climate-smart variety for their location
3. Select climate-smart income generating activities for implementation.

Time: 4 hours

Steps:

1. Divide the group randomly into subgroups of 4–6 persons, and assign each group to go in a different direction in rangeland to collect the various pasture species they can find and bring them back to learning site.
2. Ask the groups to present their findings in a plenary session.
3. Fill in the gaps from the group presentations by introducing the various climate-smart pasture species.

Learning Activity 5.3: Importance of climate-smart animal feeds

Learning objectives:

By the end of the session, FFS members will be able to:

1. Explain the importance of climate-smart livestock feeds
2. Discuss impact of climate change on quality and quantity of livestock feeds
3. Discuss alternative feed options available locally.

Time: 3 hours

Steps:

1. Brainstorm with group members the impact of climate change on the quality and quantity of animal feeds over the last 20 years and now (trend analysis).
2. Discuss the causes of change of animal feeds in terms of quantity and quality.
3. Discuss improvement measures which can help improve the quality and quantity of feeds.
4. Brainstorm on options of climate-smart animal feeds (you can add multinutrient urea blocks (MNUBs) if not mentioned).
5. Guide the group to discuss which of the options are appropriate to their local context.
6. Discuss the follow-up actions to initiate practice or experiment on the selected options, for example, making Mineral Nutrient Block (MNB) and treating local fodders with urea-molasses mixture, and so forth.

FARM TRIAL

Farm Trial 3.3: The effect of selected watershed management practices on water infiltration and retention on soils in farms on slopes

Learning enterprise: Soil and water management

Trial objective: To assess the effectiveness of selected watershed management practices on water infiltration and retention on soils in farms on slopes.

Experiment uniform situation: Trial undertaken in same ecozone with similar climate and soils.

Experimentation trial description/treatments: Participatory comparative experimentation to assess the effect of selected watershed management practices on water infiltration and retention on soils in farms on slopes. The trial comprises of four treatments (cover crop, terracing, grass strip, and retention ditch). There are no replications and the plots are of equal size.

Trial design:

Cover crop	Terracing	Grass strip	Retention ditch

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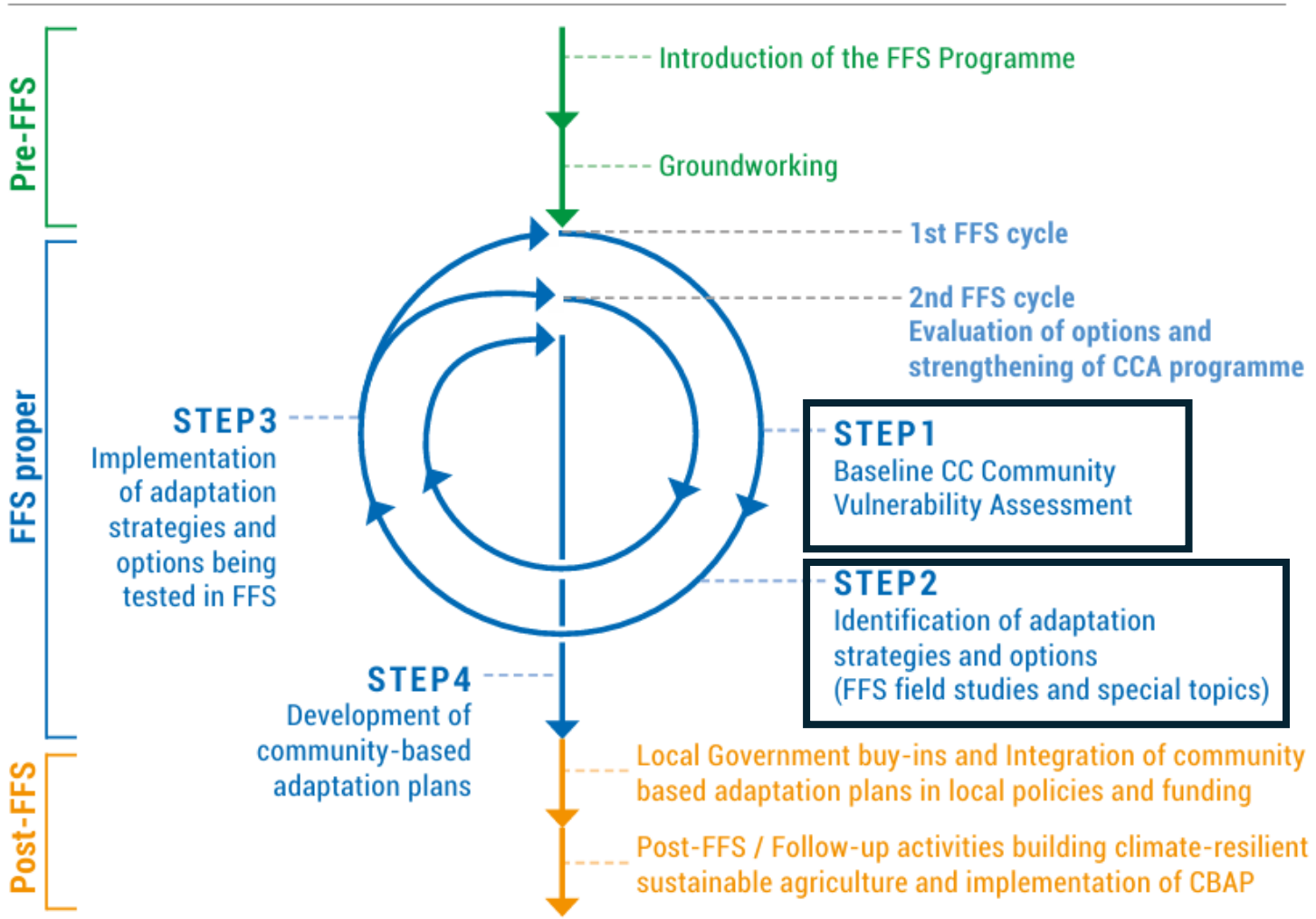

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