

## Appendix 2: Questionnaire: Output 1 and 4 : For Climate Resilience and Community Adaptation

### Endline Evaluation Household Survey Questionnaire: ECCRAS Project

Introduction for Participants:

“Hello, my name is [Enumerator's Name]. We are conducting an independent evaluation of the ECCRAS project to understand what worked well, what could be improved, and what lasting changes have been created. Your honest feedback is extremely valuable for this learning. This conversation will take about 45-60 minutes. All your responses will be kept confidential and anonymous. Participation is entirely voluntary, and you are free to decline to answer any question or to stop the interview at any time without any negative consequences. ”

#### Section A: Demographic Information

*(To be filled by interviewer before main interview)*

- A1. County: ☐ Bungoma ☐ Trans Nzoia
- A2. Sub-County: \_\_\_\_\_
- A3. Ward/Village: \_\_\_\_\_
- A4. Gender: ☐ Male ☐ Female ☐ Other ☐ Prefer not to say
- A5. Age: ☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 56+
- A6. Respondent Category: ☐ Direct project beneficiary (trained farmer)
- A7. Primary livelihood activity: ☐ Crop farming ☐ Livestock rearing ☐ Crop & Livestock ☐ Small business ☐ Casual labour ☐ Other (specify): \_\_\_\_\_

#### Section B: Adoption of Specific Climate-Resilient Practices

Effectiveness

##### B.i Achievement of Outputs & Outcomes

B1. Which of the following climate-resilient farming methods have you heard about? And which have you adopted or used on your farm in the last 12 months? (Read out options, tick all that apply)

Climate-Resilient Practice	Heard About	Adopted/Used
a) Agroforestry (trees on farm)	<input type="checkbox"/>	<input type="checkbox"/>
b) Use of drought-tolerant crop varieties	<input type="checkbox"/>	<input type="checkbox"/>
c) Crop rotation/intercropping	<input type="checkbox"/>	<input type="checkbox"/>
d) Mulching	<input type="checkbox"/>	<input type="checkbox"/>
e) composting/making organic manure	<input type="checkbox"/>	<input type="checkbox"/>
f) Water harvesting (e.g., small ponds, tanks)	<input type="checkbox"/>	<input type="checkbox"/>
g) Drip irrigation / water-saving techniques	<input type="checkbox"/>	<input type="checkbox"/>
h) Kitchen gardening	<input type="checkbox"/>	<input type="checkbox"/>
i) Establishing a food forest	<input type="checkbox"/>	<input type="checkbox"/>
j) Soil conservation (e.g., terraces, cover crops)	<input type="checkbox"/>	<input type="checkbox"/>
k) Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>

B2. For the practices you use (from B1), where did you first learn about them? *(Do not read options. Circle all that apply.)*

- From a neighbour or friend
- From a family member
- From a demonstration farm or field day – DESECE
- From a demonstration farm or field day – Other NGO (specify): \_\_\_\_\_

- From a project training – DESECE
- From a project training – Other NGO (specify): \_\_\_\_\_
- From a government agricultural officer
- From radio/TV
- Other (Specify): \_\_\_\_\_

B3: Which of these farming and conservation practices are you currently using on your farm, and if so, on how much of your land."

Practice Category	Specific Practice	B3a. Do you currently use this practice on your farm? (Yes/No)	B3b. If yes, on what approximate area/ quantity?
<b>Soil Health &amp; Fertility</b>	1. Use of compost (from farm waste)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ bags/tonnes applied per season
	2. Use of manure (animal green)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ bags/tonnes applied per season
	3. Use of cover crops (e.g., beans, peas)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares under cover crops
	4. Minimum or zero tillage	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares practised
	5. Crop rotation (changing crops seasonally)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares under rotation
<b>Water Conservation</b>	6. Rainwater harvesting (e.g., roof catchment, ponds)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ number of tanks/ponds
	7. Drip irrigation or other water-efficient methods	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares under irrigation
	8. Mulching (covering soil with straw/leaves)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares mulched
	9. Zai pits/planting pits	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ number of pits prepared
<b>Crop Diversification &amp; Varieties</b>	10. Growing drought-tolerant crop varieties	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares planted
	11. Growing early-maturing crop varieties	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares planted
	12. Intercropping (mixing crops in same field)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares intercropped
	13. Maintaining a kitchen garden	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ size in m <sup>2</sup>
	14. Establishing a food forest (multi-layered garden)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares
<b>Agroforestry &amp; Biodiversity</b>	15. Planting trees on cropland (agroforestry)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ number of trees planted
	16. Leaving natural vegetation strips	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ metres of strip maintained
	17. Using integrated pest management (IPM)	<input type="checkbox"/> Yes <input type="checkbox"/> No	____ acres/hectares applied

B3. Of all the practices you have adopted, which one do you consider the most important? (Tick one option only)

1. ☐ Use of compost (from farm waste)
2. ☐ Use of manure (animal/green)
3. ☐ Use of cover crops (e.g., beans, peas)
4. ☐ Minimum or zero tillage
5. ☐ Crop rotation (changing crops seasonally)
6. ☐ Rainwater harvesting (e.g., roof catchment, ponds)
7. ☐ Drip irrigation or other water-efficient methods
8. ☐ Mulching (covering soil with straw/leaves)
9. ☐ Zai pits/planting pits

10. ☐ Growing drought-tolerant crop varieties
11. ☐ Growing early-maturing crop varieties
12. ☐ Intercropping (mixing crops in same field)
13. ☐ Maintaining a kitchen garden
14. ☐ Establishing a food forest (multi-layered garden)
15. ☐ Planting trees on cropland (agroforestry)
16. ☐ Leaving natural vegetation strips
17. ☐ Using integrated pest management (IPM)

B5. For the most important new practice you have adopted, when did you first start using it?

- ☐ Before this project began
- ☐ During the first year of this project (2021)
- ☐ During the second year of this project (2022)
- ☐ During the third year of this project (2023)
- ☐ During the fourth year of the project (2024)
- ☐ During the fifth year of this project (2025 still ongoing)

B6. For each of the practices you are currently using, how would you rate its effect on your farm?(Enumerator: Only ask about practices where B3a = Yes)

Practice	Very positive	Somewhat positive	Neither positive nor negative	Somewhat negative	Very negative
1. Use of compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use of manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use of cover crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Minimum or zero tillage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Crop rotation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Rainwater harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Drip irrigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Mulching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Zai pits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Drought-tolerant varieties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Early-maturing varieties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Intercropping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Kitchen garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Food forest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Practice	Very positive	Somewhat positive	Neither positive nor negative	Somewhat negative	Very negative
15. Planting trees (agroforestry)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Natural vegetation strips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Integrated pest management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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B7. Have you noticed more farmers in this village using these new practices compared to two years ago?

- Yes, many more
- Yes, a few more
- No change
- Fewer
- Don't Know

B8. (*Quantitative for RI.1.2*) Compared to before the project, how would you describe the diversity of crops you grow now?

- Greatly increased
- Somewhat increased
- Stayed the same
- Decreased
- Probe: \*Can you name 1-2 new crops/vegetables you are now growing?\*

(*Quantitative for RI.1.3*) Thinking about the 2021 season, did you sell any of your farm produce? [ ] Yes [ ] No (*If No, skip to B10*)

B9. What were your TOP 3 crops or products you sold in that season? Please estimate the total amount sold and the average price per unit.

	<b>"Then" (Before Project)</b>		
Crop/Product	Total Quantity Sold (e.g., kgs, debes, bunches)	Average Price per Unit (Ksh)	Estimated Total Income (Ksh) (Quantity x Price)
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

B10. Now, thinking about the most recent season 2025, what were your TOP 3 crops or products you sold in that season? Please estimate the total amount sold and the average price per unit.

	<b>"Now" (After Project - Most Recent Season)</b>		
Crop/Product	Total Quantity Sold (e.g., kgs, debes, bunches)	Average Price per Unit (Ksh)	Estimated Total Income (Ksh) (Quantity x Price)
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
+ Any NEW crops/products?	_____	_____	_____

B11. Compared to [2021 year/start of project], how has your income from agricultural production changed?

- ☐ Significantly increased
- ☐ Slightly increase
- ☐ Stayed the same
- ☐ Slightly decreased (*Go to B12b*)
- ☐ Significantly decreased (*Go to B12b*)

B12a. What are the main reasons for this increase in income? (*Only ask if answer to B11 is "Increased significantly" or "Increased slightly"*) (*Read options, can select multiple*)

- ☐ Sold more of the same crops (higher yield)
- ☐ Sold new/different types of crops
- ☐ Sold crops for a better price
- ☐ Sold processed products (e.g., flour, jam)
- ☐ Sold seedlings or other farming inputs
- ☐ Other (please specify): \_\_\_\_\_

B12b. What are the main reasons for this decrease in income? (*Read options, multiple responses possible (Ask only if B11 = "Decreased slightly" or "Decreased significantly")*)

- ☐ Lower yields of crops
- ☐ Loss of crops due to pests/disease
- ☐ Reduced or unstable market demand
- ☐ Lower selling prices
- ☐ High input costs (e.g., fertiliser, seeds, labour)
- ☐ Loss of assets (e.g., livestock, equipment)
- ☐ Other (specify): \_\_\_\_\_

B13. To what extent did the support from ECCRAS PROJECT (e.g., training, seeds, irrigation) contribute to this change in your income?

- ☐ It was the main reason
- ☐ It was one of several important reasons
- ☐ It was a small factor
- ☐ It was not a factor

B14. (*Quantitative for RI1.4*) Do you currently have a functional system to harvest rainwater for irrigation?

- ☐ Yes
- ☐ No
- ☐ If Yes: How has it changed your farming during dry spells? (*Tick options that apply*)
  - ☐ Can plant more seasons
  - ☐ Higher yields in dry season
  - ☐ Less crop loss
  - ☐ No big change yet

B.ii. Perceived Preparedness for Climate Shocks

B15. Overall Perception: How prepared do you feel to deal with the impacts of climate change (like drought or erratic rains) on your farm compared to before the ECCRAS project began?

- ☐ Much better prepared
- ☐ Somewhat better prepared
- ☐ The same level of preparedness

- Less prepared (*Probe: Why is that?*) \_\_\_\_\_
- I don't know

B16. Capability (Knowledge & Skills): What specific knowledge or skills from the project have most contributed to you feeling more prepared? (*Select all that apply*)

- Knowing how to harvest and store rainwater
- Knowing which drought-tolerant or early-maturing crops to plant
- Skills in soil conservation (e.g., composting, mulching)
- Knowledge of agroecological methods (e.g., intercropping)
- Skills in planning for climate risks
- Knowing how to access weather information
- None / I don't feel I gained new knowledge
- Other: \_\_\_\_\_

B17. Action (Behaviours & Assets): Which of the following actions have you taken or assets do you now have because of the project that makes you feel more prepared? (*Select all that apply*)

- Implemented a water harvesting system (e.g., water pan, tank)
- Diversified the crops I grow
- Improved my soil (with compost, cover crops)
- Started a kitchen garden for household food
- Adopted a new farming practice (e.g., zai pits, contour farming)
- Joined a group that provides support/shared resources
- Developed a plan for what to do in case of drought/floods
- None
- Other: \_\_\_\_\_

B18. Confidence in the Future: Looking forward to the next season, how confident are you that your farm can withstand climate-related challenges?

- Very confident
- Somewhat confident
- Neutral
- Not very confident
- Not at all confident

B19. Residual Risks: What climate impacts are you still most worried about and feel least prepared for?

- Prolonged drought
- Erratic rainfall / Unpredictable seasons
- Floods / Waterlogging
- New pests and diseases
- High temperatures / Heat stress on crops
- I am not worried about any
- Other: \_\_\_\_\_

B. iii. Enabling & Constraining Factors

B20. What made it easy for you to adopt these new methods? (*Select all that apply*)

- High-quality, practical training
- Support from project staff
- Learning from demonstration farms

- Support and sharing within my farmer group
- Seeing good results quickly
- The inputs provided were affordable/useful
- Other: \_\_\_\_\_

B21. What were the biggest challenges or barriers? *(Select all that apply)*

- High cost of inputs/materials
- Requires more labour/time
- Lack of knowledge/confidence to do it alone
- Climate conditions were too harsh (drought/floods)
- Pests/diseases affected new crops
- Lack of access to water
- Conflicting advice from other sources
- Other: \_\_\_\_\_

B22. Did you receive support from others outside the project to use these practices?

- Yes, from other farmers
- Yes, from local government extension officers
- Yes, from local agro-dealers
- No, only from the project
- No support at all

B. iv. Inclusion

B23. *(For mixed groups)* In your opinion, how equally were men and women able to participate in project activities?

- Very equally
- Somewhat equally, but men participated more
- Somewhat equally, but women participated more
- Not equally at all
- If not equal, what were the differences? \_\_\_\_\_

B24. How have the new practices affected decision-making on what to grow or how to use farm income in your household?

- Much more input from women
- A little more input from women
- No change
- Less input from women

B25. How well do you think the project considered the needs of youth, women, and the very poor?

- Very well
- Somewhat well
- Not very well
- Not at all
- Don't know

Section C: Relevance

C.v. Alignment with Needs & Priorities

C1. Before this project, what was your single biggest problem in farming? *(Select one)*

- Unreliable rainfall/Drought

- Poor soil fertility
- Low crop yields
- Lack of income
- Pests/Diseases
- Other: \_\_\_\_\_

C2. How well did the project's activities address this specific problem?

- Very well
- Somewhat well
- Not very well
- Not at all

C3. Was the training provided relevant to your actual farming conditions?

- Very relevant
- Somewhat relevant
- Not very relevant
- Not relevant at all
- Was anything important missing? \_\_\_\_\_

C.vi. Contribution to Community-Level Change

C4. Have you shared knowledge or skills from this project with other farmers?

- Yes, with many (5+)
- Yes, with a few (1-4)
- No
- If Yes, what did you share most? \_\_\_\_\_

C5. Have you seen neighbours copying any project practices?

- Yes, many are copying
- Yes, a few are copying
- No, not that I've seen
- Probe for example: \_\_\_\_\_

Section D: Sustainability

D.vii. & D.viii. Likelihood of Sustainability & Capacity of Structures

D1. Do you think the new farming practices you are using are better than your old ones?

- Yes, much better
- Yes, a little better
- About the same
- No, not as good
- Why do you say that? \_\_\_\_\_

D2. Do you plan to continue using these practices in the next growing season?

- Definitely yes
- Probably yes
- Not sure
- Probably not

D3. What might stop you from continuing? *(Select all that apply)*



- Lack of money for inputs
- Equipment breaks, no way to repair
- No one to ask for advice
- No market for the produce
- It takes too much labour/time
- Nothing will stop me
- Other: \_\_\_\_\_

D4. (For group members) How actively is your farmer group functioning now?

- Very active (meets regularly, has plans)
- Somewhat active (meets sometimes)
- Not active (seldom meets, no plans)
- Group is no longer together

D5. Does the group have a plan to continue without project support?

- Yes, a clear plan (if yes, what plans; savings, registered co-op etc.)
- Yes, but the plan is not clear
- No plan
- Don't know

D6. Where will you go for advice or help with farming problems now? (allow multiple answers)

- My farmer group
- Government extension officer
- Local agro-dealer
- Other successful farmers
- I don't know where to go
- Other: \_\_\_\_\_

D.ix. Future Support & Scaling

D7. What should a future project focus on for bigger impact? (Select up to two)

- Better market access
- More support for irrigation
- Access to loans/credit
- [ \*] Advanced business training
- Youth-specific programs
- Other: \_\_\_\_\_

Section E: Generate Learning

E.x. Lessons on Design & Implementation

E1. What was the most effective part of the project? (Select one)

- The practical, on-farm training
- The demonstration farms
- The support for irrigation/water
- The group approach (farmer groups)
- The quality of the project staff

- Other: \_\_\_\_\_
- Why? \_\_\_\_\_

E2a. What was the least effective or most challenging part?

- Training was too theoretical
- Not enough follow-up after training
- Inputs/ materials were delivered late
- Group management was difficult
- Other: \_\_\_\_\_

E2b What should be done differently (Please give one or two suggestions)

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E3. How could the project have been more inclusive? (allow multiple choice)

- Hold meetings at more convenient times
- Provide childcare during activities
- Ensure materials are affordable for the poorest
- Have separate sessions for youth
- It was inclusive enough
- Other: \_\_\_\_\_

E.xi. Recommendations for Sustainability Pathways

E4. What specific support does your group need to be self-reliant? (*Select all that apply*)

- Advanced business training
- A grant or loan to start a group enterprise
- Stronger links to buyers/markets
- Training on leadership and governance
- Formal registration as a cooperative
- None, we are already self-reliant

E5. What is the one key piece of advice you would give for a new project? \_\_\_\_\_ "

**Section F: This section is for Beneficiary Households (HHs) who participated in the cook stove component**

*F1. Awareness and Knowledge (Directly measures RI 4.2)*

Purpose: To verify the project achieved its awareness-raising targets.

F1a. Have you ever heard about health risks related to cooking using traditional wood fuel?

- Yes
- No

F1b. If Yes in F1a which impacts are you aware of ? (*Select all that apply*)

- Health impacts (e.g., smoke-related illness)
- Environmental impacts (e.g., deforestation, land degradation)
- Other (specify): \_\_\_\_\_

F1c. Where did you hear about the impacts selected in F1b? (*Select all that apply*)

- ECCRAS project activities
- Other NGO project activities
- Government officer/health worker
- Radio/TV/social media
- Friend/family/community member
- Other (specify): \_\_\_\_\_

*F2: Cook Stove Installation and Receipt (Directly measures RI 4.3)*

Purpose: To verify the physical installation and distribution of cook stoves.

F2a. Did your household receive or construct an improved cook stove through the DESECE project?

- Yes -> Continue to F2b
- No -> Continue to F3a

F2b. How many improved cook stoves did you install/receive from the project? Number: [ ]\_\_

F2c. Can you show me the cook stove(s) provided by the project? (*Verification through observation*) Tick appropriate answer

- Confirmed Present
- Not Present / Can't show

F2d. Enumerator Observation: Are there visible signs of recent use of the improved cook stove?

- Yes (e.g., ash, soot, warmth, cooking utensils nearby)
- No visible signs
- Cannot determine

F2e. Is the improved cook stove currently being used in your household?

- Yes (*Go to F2f*)
- No

F2f. If Yes in F2e, How often do you use the improved cook stove?

- Always (for all main meals)
- Often (most meals)
- Sometimes (few meals per week) (*Go to F2g*)
- Rarely (less than once per week) (*Go to F2g*)

F2g. If No or Sometimes/Rarely in F2e, what are the main reasons for not using the improved cook stove more regularly? (Select all that apply)

- Stove is broken/needs repair
- Lack of fuel
- Preference for traditional stove (taste, speed, etc.)
- Too small/insufficient for household needs
- Other (specify): \_\_\_\_\_

*F3: Project Participation (Context for Output Delivery)*

Purpose: To document participation in project activities.

F3a. Did you participate in any project training on how to use the cook stoves?

- Yes
- No

F3b. Did you participate in any project training on how to make briquettes?

- ☐ Yes (*Continue to F3c*)
- ☐ No (*Skip to F3d*)

F3c. Are you currently making your own briquettes?

- ☐ Yes
- ☐ No → (*Continue to F3c(i)*)

F3c(i). If no, what are the main reasons you are not making your own briquettes? (Multiple answers possible)

- ☐ Lack of raw materials
- ☐ Lack of time or labour
- ☐ Equipment/tools not available
- ☐ Too costly
- ☐ Do not see the benefit
- ☐ Other (specify): \_\_\_\_\_

F3d. What is the main reason you did not participate in the project training on how to make briquettes?

- ☐ Did not hear about the training
- ☐ Training was held at an inconvenient time
- ☐ Training was held in a location too far away
- ☐ Household responsibilities/other commitments prevented attendance
- ☐ Not interested in briquette making
- ☐ Other (specify): \_\_\_\_\_

Closing: "Thank you so much for your time and valuable insights. Your experiences will help improve future projects for other farmers."