

Enhancing the Resilience of Food Systems to Climate Change In Agro-Ecological Zone I Of Southern Zambia

Individual survey questionnaire

Declaration

This survey is intended for only academic purposes. I assure you of your confidentiality and anonymity regarding your responses to the questions.

District:

Camp:.....

A1: Respondent Background Information

Demographic Information

Please answer the following questions by ticking the correct answer

Name (Optional)	
Age	[a] 18 to 24, [b] 25 to 35, [c] 36 to 44, [d] 45 to 55, [e] 56 to 65, [f] Above 65
Gender	[a] Male, [b] Female
Education level	[a] No education, [b] Primary, [c] Secondary, [d] Tertiary
Marital status	[a] Single, [b] Married, [c] Divorced/separated, [d] Widowed
Income levels (ZMW)	[a] < 500, [b] 600 to 1000, [c] 1,001 to 5,000, [d] 5,001 to 10,000, [e] 10,001 to 15,000 [f] 15,001 to 20,000 [g] > 20,000
Household size	[a] 1 – 3, [b] 4 – 7, [c] 8 – 11, [d] > 11
Size of farmland (Ha)	[a] < 5 [b] 6 to 10, [c] 10.1 to 15, [d] >15
Primary source of household income	[a] Crop farming, [b] Livestock sales, [c] Business, [d] Government grants (social welfare), [e] other (specify)

A2. Does your household engage in farming activities? [a] Yes [b] No

A3. If yes, what type of farming do you practice? [a.] Subsistence, [b]. Emergent [c]. Commercial, [d]. Mixed farming

Section B: Adaptive Capacities - Knowledge and Awareness

B1. Are you aware of any practices or technologies to adapt to these climate changes? [a]. Yes [b] No

- (i) If yes, please list the practices or technologies you are aware of:

- (ii) Do you practice any of the above practices you have listed? [a] Yes [b] No
- (iii) Which ones do you practice

- (iv) And why?

hyb.....
- (v) Why are you not using all the practices?

- (vi) How effective are the practices you use on a scale of 1 to 5 where 1 means worst while 5 means very effective?.....

B2. Have you implemented any adaptation strategies to cope with climate change? [a] Yes [b] No

- (i) If yes, which strategies have you implemented? (e.g., crop diversification, irrigation, early warning systems).....

- (ii) And why?.....
- (iii) Have they worked?.....

B3. Support and Resources

- (i) What kind of support have you received (if any) to implement these strategies? (e.g., financial, technical, informational, or others specify

- (ii) What additional support do you need to enhance your resilience to climate change?.....

B4. Community-Level Vulnerabilities and Resilience

- (i) Are there any community initiatives or programs in place to address climate change impacts on agriculture? Yes/No
- (ii) If yes, please describe them:

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B5. Perceived Barriers

- (i) What are the main barriers to implementing adaptation strategies at the community level?.....

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B6. What actions do you think are necessary to improve the resilience of your community's food system to climate change?.....

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B7. Is there anything else you would like to share about your experiences with climate change and agriculture?.....

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SECTION C: Knowledge of Climate Change and Food Systems

C1. How long have you (or your family) been engaged in farming activities in this area?

[a] Less than 5 years, [b] 6 to 10 years, [c] 11 to 20 years, [d] 21 to 30 years, [e] Above 30 years

C2. (i) Describe the types of crops you grow crops grown

1	Cereals	
2	Legumes	
3	Tubers & roots	
4	Others (specify)	

C3. Why do you grow the above crops?.....

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C4. How would you describe climate change to someone in your community?.....

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C5. Have you observed any signs of climate change in your area?

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.....

C6. If yes, please specify

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C7. For how long have you been noticing these climatic changes

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.....

Sources of Climate Change Information

C8. From where do you receive information about climate change? [a] community meetings, [b] radio, [c] television, [d] Traditional ceremonies, [e] internet, [f] NGOs, [g] rain gauge minders) [h] Others (specify).....

C9. Which source do you trust the most, and why?

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C10. What type of climate information do you receive?

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.....

C11. Do you use this information in your farming? [a] Yes [b] No

C12. If YES, how do you use it, and what are the benefits you have seen?

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Section D: Indigenous Knowledge Systems

D1. Can you share any traditional practices or knowledge your community uses to deal with climate variability and agricultural production?.....

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D2. How is this knowledge passed down through generations?.....

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Indigenous knowledge and adaptations to climate change

D3. Do you adapt to the changes in climate? (a) Yes [] Go to E2 (b) No [] Go to F1

D4. (i) Do you use your indigenous knowledge in adapting to climate change? (a) Yes [] (b) No []

(ii) If Yes, which practices do you adopt individually?.....
.....

D5. Is there indigenous knowledge among the community which is important for climate change adaptation? (a) Yes [] (b) No []

D6. Which indigenous practices are collectively implemented by community in adapting to climate change?

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D7. Has the use of your indigenous knowledge changed over time? (a) Yes [] (b) No []

D8. If you use indigenous knowledge, where did you get it from? (a) Family (b) Community (c) Agricultural extension department (d) NGOs (e) Others specify.....

D9. If you obtained it from the family, which family member did you learn this knowledge from? (a) Grandparents (b) Parents (c) Aunties (d) Uncles (e) Siblings (d) Others specify.....

D10. Is this knowledge a common practice in the community? [a] Yes [b] No

D11. Has the use of your indigenous knowledge changed over time? [a] Yes [b] No

D12. If yes, could you elaborate on your answer?

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.....

D13. How effective is indigenous knowledge to you in dealing with climate change risks? [a] Very effective [b] Effective [c] No idea [d] Not effective [e] Not very effective

D14. How accessible is indigenous knowledge in this village?

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D15. What is motivating you to use Indigenous knowledge?.....
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D16. If you use modern knowledge only, explain the motivation for doing that.

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.....

D17. If you integrate indigenous knowledge with modern knowledge, explain the motivation for doing that

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D18. Have you adjusted your entire farming system to deal with climate change? [a] Yes [b] No

D19. If yes, could you elaborate on your answer?

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D20. Do you engage in off-farm activities to diversify your income to adapt to climate change? [a] Yes [b] No

D21. If yes, could you elaborate on your answer?

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.....

D22. Do you do things as a community that are important for adapting to climate change? [a] Yes [b] No

D23. Have you always done that? [a] Yes [b] No

D24. Is it a new idea? [a] Yes [b] No

D25. Is it something that your ancestors did? [a] Yes [b] No

D26. In your experience, how effective are these traditional practices in managing climate change impacts on agriculture?.....

D27. Have these practices changed over time? [a] Yes [b] No

D28. If so, how?

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Section E: Integration of Scientific Knowledge

E1. Are you aware of any scientific methods or technologies to adapt to climate change impacts on agriculture? [a] Yes, [b] No

Please describe

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E2. Have you or your community been able to access or use these scientific methods? [a] Yes [b] No

Why or why not?

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E3. Have there been any efforts to combine indigenous knowledge with scientific knowledge in your community?

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Please provide examples

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E4. What challenges, if any, have you faced in integrating these types of knowledge?

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E5. How is knowledge about climate change and adaptation shared within your community?

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E6. Are there formal structures or events for sharing this knowledge? Please describe

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E7. How involved are community members in decision-making processes related to climate change adaptation?

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E8. What could be done to improve community engagement and knowledge exchange on this topic?

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E9. What are the main barriers to using indigenous or scientific knowledge in adapting to climate change impacts on your food system?

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E10. How could these barriers be overcome?

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E11. What suggestions do you have for strengthening the use of knowledge systems in adapting to climate change impacts on agriculture?

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E12. Do you get support from government institutions? [a] Yes [b] No

E13. If yes, what support do you get from government institutions?

	Support systems	YES	NO
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i	Financial		
ii	Training		
iii	Community development		
iv	Materials		
v	Others specify		

E14. Is there anything else you would like to add about your experiences or ideas related to knowledge systems and climate change adaptation in agriculture?.....
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Key Informant Interviews

Agriculture Officers/Extension Workers:

1. Describe the main types of crops and livestock raised in the region.
2. What are the most significant challenges farmers face regarding food production?
3. Have you observed any changes in climate patterns that impact agriculture?
4. What existing programs or initiatives support farmers adapting to climate change?
5. In your opinion, what are the most promising strategies for enhancing food system resilience?

Researchers:

1. What are your current research priorities related to the region's food security and climate change?
2. What are the key findings from your research on climate impacts on food systems?
3. What gaps in knowledge exist regarding adaptation strategies?
4. How can research findings be translated into practical solutions for farmers?

NGO Representatives:

1. Describe your organization's programs and activities supporting food security and climate adaptation.
2. What are the main challenges you face in implementing these programs?
3. What are the key factors contributing to the success of adaptation initiatives?
4. How can collaboration between NGOs, government agencies, and local communities be improved?

Community Leaders/Elders:

1. How have traditional farming practices and knowledge adapted to changing climate conditions over time?
2. What are the main concerns and priorities of the community regarding food security and climate change?
3. What traditional coping mechanisms are still used to deal with climate variability and extremes?
4. What role can community leadership play in promoting adaptation and building resilience?

Focus Group Discussions Guide

Aligned Focus Group Discussion Guide for Smallholder Farmers:

Objective: Understand farmers' perceptions of climate change, their adaptation strategies, and existing support mechanisms.

Themes:

1. Perceptions and Risks of Climate Change:

○ Understanding and observations:

- What changes in weather patterns have you observed in the past 5 decades?
- How would you describe the severity and pace of these changes?
- How do you predict weather patterns in the community? (local indicators)

○ Impacts and concerns:

- How has climate change impacted your farm production and income?
- What are the most critical impacts you anticipate in the next decade?
- What are your biggest concerns about food security and climate change?

2. Adaptation Strategies:

○ Traditional practices:

- What traditional knowledge and practices do you use to cope with climate variability?
- How effective are these practices in adapting to changing conditions?
- How have these practices evolved over time?

○ Modern approaches:

- What new technologies or practices have you adopted or are willing to try?
- What information and resources do you need to adapt effectively?
- How can modern and traditional approaches be combined for better resilience?

3. Institutional Support:

○ Existing support:

- What support do you receive from government or other institutions for climate change adaptation?
- Does this support address both indigenous and modern knowledge?
- How effective is this support in enhancing your resilience?
- **Integration and recommendations:**
 - Do you think indigenous knowledge should be integrated with existing policies and programs?
 - How can support mechanisms be improved to better promote your indigenous knowledge?
 - What additional support would be most helpful for adapting to climate change?