

Appendices

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Appendix 1: Table – Farmers’ Agreement on statements on Climate Change

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Climate change is a serious issue affecting agriculture	168 (85.3%)	18 (9.1%)	9 (4.6%)	1 (0.5%)	1 (0.5%)
Changes in precipitation patterns affects maize production	144 (73.1%)	36 (8.3%)	1 (0.5%)	16 (8.1%)	----
Erosions occur more frequently	92 (46.7%)	75 (38.1%)	15 (7.6%)	15 (7.6%)	----
Droughts occur more frequently	52 (26.4%)	108 (54.8%)	35 (17.8%)	1 (0.5%)	1 (0.5%)
Climate change is disrupting my livelihood as a farmer	14 (7.1 %)	135 (68.5%)	10 (5.1%)	33 (16.8%)	5 (2.5%)
The use of chemicals contributes to climate change	71 (36%)	90 (45.7%)	27 (13.7%)	8 (4.1%)	1 (0.3%)
The use of Adaptation Strategies will improve productivity/profitability	128 (65%)	49 (24.9%)	4 (2%)	16 (8.1%)	----
The effects of climate change can be reduced and possibly reversed	86 (43.7%)	75 (38.1%)	20 (10.2%)	16 (8.1%)	----

Appendix 2: Table – Farmers’ Agreement on the Constraints to the Adoption of Adaptation Strategies

Constraints					
	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
Inadequate and limited access to credit	145 (75.9%)	4 (2.1%)	----	----	42 (22%)
Low literacy	26 (13.5%)	58 (30.2%)	39 (20.3%)	26 (13.5%)	43 (22.4%)
High cost of labour	46 (24.1%)	97 (50.8%)	1 (0.5%)	4 (2.1%)	43 (22.5%)
High cost of input/inaccessible input	83 (43.5%)	89 (46.6%)	2 (1%)	14 (7.3%)	3 (1.6%)
Poor access to meteorological information	50 (26%)	101 (52.6%)	33 (17.2%)	8 (4.2%)	----
Land tenure	48 (25%)	77 (40.1%)	50 (26%)	16 (8.3%)	1 (0.5%)
Inadequate knowledge of climate change	70 (36.5%)	58 (30.2%)	29 (15.1%)	4 (2.1%)	31 (16.1%)
Poor extension services	25 (13%)	55 (28.6%)	15 (7.8%)	11 (5.7%)	86 (44.8%)
Lack of government services	110 (57.3%)	63 (32.8%)	4 (2.1%)	1 (0.5%)	14 (7.3%)

Appendix 3: Table – Distribution of Source of Credit

Sources of Credit	Percentage (%)
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Friends/Family	17.6%
Farmers' groups/associations	7.4%
Farmers' Cooperatives	44.1%
Bank of Agriculture	1.5%
Commercial Banks	26.5%
Others	2.9%

Appendix 4: Table – Distribution of Farmers' Labour Source

Labour Source	Mean	Minimum	Maximum
Family labour - male	2.7551	0	11
Family labour - female	1.6684	0	5
Family labour- Total	4.4031	0	11
Hired labour - male	4.7107	0	10
Hired labour - female	2.9692	0	8
Hired labour - total	7.6684	0	14

Appendix 5: Questionnaire for the study

ADAPTATION STRATEGIES ON CLIMATE CHANGE AMONG MAIZE FARMING HOUSEHOLDS IN OYO STATE, NIGERIA.

A. SOCIO-ECONOMIC CHARACTERISTICS

1. What is your gender? A. Male B. Female
2. What is your marital status? A. Single B. Married C. Divorced D. Widowed
3. What is your religion? A. Christianity B. Islam
4. How old are you? A. ≤30 B. 31 – 40 C. 41 – 50 D. 51 -60
E. > 60
5. Are you the Household Head? A. Yes B. No
6. What is your highest level of education? A. Primary School B. Secondary School C. DIPLOMA/NCE D. B.Sc E. Post Graduate
7. What is your household size?

B. Children (>15 years)	C. Adults (16-59 years)	D. Elderly (60+ years)	E. TOTAL
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8. What is your farm size (in hectares)?
9. How much is your monthly income (in Naira)? A. < 20,000 B. 21,000 – 40,000 C. 41, 000 – 60,000 D. 61,000 – 80,000 E. 81, 000 – 100,000
F. > 100, 000
10. Does your household have any off-farm employment? A. Yes B. No
11. If yes, to the above question; what is the household’s off-farm employment (in Naira)? A. < 20,000 B. 21,000 – 40,000 C. 41, 000 – 60,000 D. 61,000 – 80,000 E. 81, 000 – 100,000 F. > 100, 000
12. How many years of farming experience do you have (in years)?
.....
13. Is your farm land ... A. Owned B. Leased C. Communal D. Inherited E. Gifted
14. Do you operate under contract farming? A. Yes B. No
15. Are you a member of a cooperative? A. Yes B. No
16. Are you a member of a farmers’ association? A. Yes B. No

17. Do you have access to credit or loans A. Yes B. No
18. If **Yes**, which of these are your source(s) of credit or loans? A. Friends/Family
 B. Farmers' groups/associations C. Farmers' cooperative D. Bank of Agriculture
 E. Commercial Banks
19. Do you use family labor A. Yes B. No
20. Do you use hired labor A. Yes B. No
21. Please indicate the number of people you have working on your farm

	Number of Male Workers	Number of Female workers	TOTAL
Family Labour			
Hired Labour			

22. Do you currently cultivate another type of crop A. Yes B. No
23. If **Yes**, what other crop(s) do you cultivate?

24. Do you rear animals? A. Yes B. No
25. If **Yes**, what type? A. Poultry B. Pigs C. Goats D. Sheep E. Cattle F. Snails
 G. Others (please specify)

F. PERCEPTION OF CLIMATE CHANGE AND LEVEL OF AWARENESS ON ADAPTATION STRATEGIES

1. Have you heard of the term '**Climate Change**' A. Yes B. No
2. If **Yes**, how often do you hear this topic A. Rarely B. Sometimes C. Frequently
3. Are you concerned about your future as a maize farmer because of the effects of climate change? A. Not Concerned B. Somewhat Concerned C. Highly Concerned
4. How serious are the effects of climate change on your farm?

Please indicate the seriousness of these effects

No Impact - 0 1 2 3 4 - Very Serious Impact					
	0	1	2	3	4
Reduced Productivity					
Increased Temperature					
Changes in precipitation patterns					
Changes in extreme weather events (such as droughts and erosions)					
Reduced water availability					
Shorter Vegetation period					
Changes in planting dates					
Changes in harvesting dates					

5. What is your perception of rainfall (over the last 10 years)? A. Unpredictable B. No Change C. Decreased D. Increased
6. What is your perception of temperature (over the last 10 years)? A. Unpredictable B. No Change C. Decreased D. Increased
7. Are you aware of Adaptation strategies for the effects of climate change? A. Yes B. No
8. Do you currently adopt Adaptation strategies? A. Yes B. No
9. If **Yes**, Which of these Adaptation strategies are you aware of and adopt? *Please tick the correct boxes*

PRACTICES	AWARE	ADOPTED
Conservation tillage/minimal tillage		
Contour planting/farming		
Mixed cropping/ Inter-cropping		
Cover crops/mulching		
Crop rotation		
Organic fertilizers		
Water conservation/harvesting		

Irrigation		
Biological control (such as the use of natural insect repellants)		
Cultivation of new and improved cultivars		
Cultivation of new/different crops		
Agroforestry		

8b. If you use/adopt irrigation practices, please state the type of irrigation you use? A. Surface Irrigation B. Sub-Surface Irrigation C. Sprinkler Irrigation D. Drip Irrigation E. Others (please specify)

10. Please state to what extent you agree to the following statements?

Please indicate your views on these statements						
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Climate change is a serious issue affecting agriculture						
Changes in precipitation patterns affects maize production						
Erosions occur more frequently						
Droughts occur more frequently						
Climate change is disrupting my livelihood as a farmer						
The use of chemicals contributes to climate change						
The use of Adaptation Strategies will improve productivity/profitability						
The effects of climate change can be reduced and possibly reversed						

11. Which of these are your information sources about the Adaptation Strategies and how important are they for you? *Please tick the correct boxes*

	Adaptation Strategy Information	Not Important at all					Very
		Important	0	1	2	3	4
Extension officers/workers							
Agricultural programs/workshops							
Government agencies/Research Institutes							
Farmers' associations							
Mass media							
Friends and family							
Ministry of Environment							
Others (please specify)							

G. FACTORS INFLUENCING THE NON-ADOPTION OF ADAPTATION STRATEGIES FOR CLIMATE CHANGE

1. Please indicate to what extent you agree or disagree of these constraints on the non-adoption of Sustainable Agricultural Practices?

Constraints	Strongly	Agree	Agree	Indifferen	Disagree	Strongly	Disagree
	Agree	Agree	t	Disagree	Disagree	Disagree	Disagree
Inadequate and limited access to credit							
Low literacy							
High cost of labour							

High cost of input/inaccessible input					
Poor access to meteorological information					
Land tenure					
Inadequate knowledge of climate change					
Poor extension services					

2. What are the reasons why you do not adopt or practice adaptation strategies on your farm?

PRACTICES	Not Profitable/Economical					Not Sustainable					Too Technical					Not Enough Information					No Money for Investment				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Conservation tillage/minimal tillage																									
Contour planting/farming																									
Mixed cropping/Inter-cropping																									
Cover crops/mulching																									
Crop rotation																									
Organic fertilizers																									
Water conservation/harvesting																									

Irrigation																							
Biological control (such as the use of natural insect repellants)																							
Cultivation of new and improved cultivars																							
Cultivation of new/different crops																							
Agroforestry																							

Others, please specify.....

3. What factors would positively influence your decision to adopt sustainable agricultural practices in the future?

PRACTICES	Factors that would positively influence future adoption																			
	Strongly Disagree - 1 2 3 4 5 - Strongly Agree																			
	Access to credit					Better information on weather parameters					Access to tools and resources					Government Support				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

