CONSENT FORM

1. I _____agree to and am voluntarily taking part in this research project.
2. I understand that I have the right to withdraw from the study at any time and may choose no longer to participate without having to explain myself.
3. I am aware that the information I provide on the questionnaire is for educational / academic purposes.
4. I understand that my name will not be recorded.
5. I have been provided with, have read, the information leaflet regarding this research study.
6. I have had the opportunity to ask any questions related to this study, and received satisfactory answers to my questions, and any additional details I wanted.
7. I agree to answer the questions to the best of my ability.
8. I understand that I may refuse to answer any questions that I do not feel comfortable answering.
9. By signing this letter, I give free and informed consent to participate in this research study.

DATE			
PARTICIPANT SIGNATURE			
RESEARCHER NAME	Thando Dyanty	RESEARCHER SIGNATURE	

This research is being conducted by Thando Dyanty.

Telephone: 0613911480 E-mail: 219031614@ump.ac.za

If there are any further questions about the research study or the questions itself, please contact the Supervisor Dr I Agholor at UMP. The Supervisor's contact details are as follows:

Supervisor

Tel: 013 002 0131 Email: Isaac.Agholor@ump.ac.za

This research project has received ethical approval from the School Research Ethics Committee.

RESEARCH QUESTIONNAIRE

SECTION A: SOCIOECONOMIC CHARACTERISTICS

NB: use a tick or a cross under the appropriate answer

1. Gender

1. Male	2. Female

2. Age

1. ≤35	2. 36-45	3. 46-55	4. 56-65	5. ≥66

3. Educational level

1. No school	2. ABET	3. Primary	4. Secondary	5. Tertiary

4. Marital status

1. Single	2. Married	3. Divorced	4. Widow	5. Widower

5. Years of farming experience

1. ≤5	2. 6-10	3.11-15	4. 16-20	5. ≥21

6. Ownership of agricultural land

1. Own	2. Lease	3. Tribal authority	4. Land reform

7. Farm size in hectares

1.≤5	2. 6-10	3. 11-15	4. 16-20	5. ≥21

8. Household size

1. ≤5	2. 6-10	3. 11-15	4. 16-20	5. ≥21

9. Cooperative membership

1. Yes	2. No

10. Reasons for farming

1. household consumption	2. Household consumption and income generation	3. Income generation

11. Major source of income

1. Pension	2. Farming	3. Off-farm employment	4. Remittances	5. Social grants

12. Farm income

1. ≤R5000	2. R6000-R10000	3. R11000-15000	4. R16000-R20000	5. ≥R21000

13. Major crops produced

1. Cereal	2. Legumes	3. Vegetables	4. Fruits

14. Do you have access to extension services?

1. Yes	2. No

15. How often do you receive extension services

1. Weekly	2. Fortnight	3. Monthly	4. Yearly	5. Other

SECTION B: CLIMATE CHANGE AND LIVELIHOOD

NB: use a tick or a cross under the appropriate answer

16. Are you aware of climate change?

1. Yes	2. No

17. Do you have access to climate change information?

1. Yes	2. No

18. Where do you often get information about climate change?

1. ICT tools	2. Newspaper	3. Extension officers	4. Higher institutions	5. Farmers group	6. Fellow farmers	7. None

19. In the past 3 years, did you experience any significant change in climate?

1. Yes	2. No

20. How has climate change affected your crops?

1. Highly affected	2. Mostly affected	3. Moderate	4. Less affected	5. Not affected

21. Which livelihood capitals has been affected the most?

1. Human capital	2. Natural capital	3. Social capital	4. Physical capital	5. Financial Capital

22. To what extent has climate change impacted your livelihood

1. To a very small extent	2. To a small extent	3. To a Moderate extent	4. To a large extent	5. To a very large extent

SECTION C: PERCIEVED SOCIO-ECONOMIC EFFECTS OF CLIMATE CHANGE ON SMALLHOLDER FARMERS LIVELIHOODS

23. The table below shows common climate-related challenges faced by farmers. Please indicate the extent to which you agree that these challenges affect your farm productivity with a cross on the appropriate response.

Effects	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
Decreased crop yields					
Decline in farmers' income					
Market price fluctuation					
Increased food insecurity					
Farmer's Health deterioration					
Migration					
Decreased soil quality					
Decreased water availability					
Incidence of pest and diseases					

SECTION D: LOCAL ADAPTATION STRATEGIES USED BY SMALLHOLDER FARMERS TO COMBAT THE IMPACT OF CLIMATE CHANGE

24. The table below shows climate change local adaptation strategies commonly employed by smallholder farmers. Please indicate the adaptation strategies that you employ with a cross on the appropriate response.

Adaptation strategies	**(tick here)**
Changing ploughing and planting dates	
Cultivation of new land	
Intercropping	
Pest and disease control	
Crop type diversification	

Planting different crop varieties	
Water conservation techniques	
Soil conservation techniques	
Off/non-farm work	
Migration	
Indigenous early warning systems	
Farm insurance	
Use of drought resistant varieties	

SECTION E: CHALLENGES FACED BY SMALLHOLDER FARMERS WHEN IMPLEMENTING CLIMATE CHANGE ADAPTATION STRATEGIES

25. The table below shows some of the challenges farmers encounter when implementing climate change adaptation strategies. Please indicate to what extent these challenges affect you on the 5-point scale provided.

Challenges	**Not a challenge**	**Minor challenge**	**Moderate challenge**	**Serious challenge**	**Very serious challenge**
Inadequate information on climate change					
Lack of access to improved crop varieties					
Land ownership issues and access to sufficient land					
Shortage of labour					
Poor access to credit					
Lack of training on use of adaptation strategies					
Inadequate access to extension services					
High cost of adaptation implementation					
Lack of assistance from other support groups					
Religious and cultural beliefs					

Resistant to change					

SECTION F: ADOPTION LEVEL

NB: use a tick or a cross under the appropriate answer

26. Have you adopted local climate change adaptation strategies?

1. Yes	2. No

Thank you for your time