SURVEY QUESTIONNAIRE

Survey on Climate Challenges and Adaptation Among Rural Women Farmers in Ghana

From the study *Climate Adaptive Strategies of Rural Women in Upper East and West Ghana*

Ghana · Upper East, Upper West · In English

The form used with rural women farmers in the Upper East and Upper West regions, covering household demographics, the climate challenges they face, the adaptation strategies they use, and what those strategies did for income, yield and food security.

Location

Region

☐ Upper East ☐ Upper West

District

☐ Bolgatanga - East ☐ Talensi ☐ Nabdam

District

☐ Wa West ☐ Lawra

Community

_____

A. Consent Form

> *You are being invited to participate in a research study aimed at understanding the climate-related challenges faced by rural women farmers and the adaptation strategies they employ. Your participation is voluntary, and this form provides information about the study to help you decide whether to participate. If you agree to participate, you will be asked to complete a questionnaire that will take approximately 45 minutes. The questionnaire covers topics such as household demographics, farming activities, climate challenges, and adaptation strategies. All information you provide will be kept confidential. Your name and contact details will not be linked to your responses in any published or shared data. The data will be stored securely and used only for research purposes. Your participation is entirely voluntary. You may choose not to answer any question or withdraw from the study at any time without any negative consequences. There are no direct benefits or risks associated with participating in this study. However, your responses will contribute valuable insights to improve support for farmers facing climate-related challenges.*

Do you agree to continue with this interview?

☐ Yes ☐ No

B. How many years have you been involved in farming activities?

☐ Less than 1 year ☐ Between 1-5 years ☐ Between 5-10 years ☐ Above 10 years

Household Demographics

In this session, respondents will be asked questions relating to their demographics.

1 What is the age of the respondent?

_____

2 Gender of Respondent

☐ Male ☐ Female

3 What is the educational level of respondent?

☐ No education
☐ Basic education
☐ Secondary/Technical/Vocational
☐ Tertiary
☐ Non-Formal Education
☐ Others

3a If Others, specify

_____

4 Marital Status of Respondent

☐ Married ☐ Single ☐ Divorced/Separated ☐ Widow/Widower ☐ Cohabitation ☐ Other

4a If Others, specify

_____

5 What is the religion of respondents?

☐ Chrisitan
☐ Muslim
☐ African Traditional Religion
☐ Others

5a If Others, specify

_____

6 What is your tribe?

☐ Gurma ☐ Dagomba ☐ Dagaaba ☐ Kusasi ☐ Frafra ☐ Kasena ☐ Mamprusi ☐ Gonja ☐ Hausa ☐ Bissa ☐ Sissala ☐ Gurune ☐ Talensi ☐ Nabdam ☐ Others

6a If Others, specify

_____

7 What is your household size?

_____

8 Who is the head of your household/home?

☐ Male-led Household Head

☐ Female-led Household Head

9 What is the main type of farming activity you are engaged in?

☐ Crop farming ☐ Livestock farming ☐ Fishing ☐ Others

9a If Others, specify

_____

10 What is your primary source of income in your household?

☐ Farming ☐ Business ☐ Remittances ☐ Others

10a If Others, specify

_____

11 Do you have any alternative or secondary source of income in your household?

☐ Yes ☐ No

11a If yes, what is your secondary source of income?

_____

12 What are the major food crops produced in your farm?

_____

13 What type of livestock do you rear on your farm?

_____

14 What is the tenure ownership of the land you are currently farming on?

☐ Own ☐ Rent ☐ Lease ☐ Family land ☐ Others

14a If Others, specify

_____

15 How long have you been renting this land?

In months

_____

16 What is the duration of your rent?

In months

_____

17 How much does it cost to rent an acre of land here? GHS

Per annum

_____

18 How long has this land be leased to you?

_____

19 How much does it cost to lease an acre of land here?

In months

_____

20 Which land tenure ownership option would you prefer?

☐ Own ☐ Rent ☐ Lease ☐ Family land ☐ Others

20a If Others, specify

_____

21 What is/are the reason(s) for your preferred land tenure ownership for farming?

☐ Inheritance/Gift from family/friend etc
☐ To have full control over land use decisions
☐ Access to fertile land
☐ Large-scale/ commercial purposes
☐ Lower Cost
☐ Others

21a If others, specify

_____

22 What is the current total land size (in acres) available to you for framing activities?

Measurement in Acres

_____

23 How many acres of land did you cultivate in the previous year?

Measurement in Acre

_____

Climate-Related Challenges Affecting Rural Women Farmers and Their Agricultural Activities

24 How would you describe climate change?

Climate change is the change in atmospheric weather condition for period 10 years or above.

_____

25 Have you experienced any changes in climate patterns in the past 5years?

☐ Yes ☐ No

26 If yes, what climate changes have you experienced? (Personal Farmer experience)

☐ Erratic/Unpredictable rainfall
☐ Increased temperature

☐ Decreased temperature
☐ Prolonged/Increased drought
☐ Flooding
☐ Strong sunshine
☐ Increased pests and diseases
☐ Windstorm
☐ Other (please specify)

26a If Others, specify

_____

27 How frequently do you experience these climate changes?

☐ Very frequently ☐ Frequently ☐ Occasionally ☐ Rarely ☐ Never

28 What are the persistent climate shocks/changes in your community/ location?

☐ Erratic/Unpredictable rainfall
☐ Increased temperature
☐ Decreased temperature
☐ Prolonged/Increased drought
☐ Flooding
☐ Strong sunshine
☐ Increased pests and diseases
☐ Windstorm
☐ Other (please specify)

28 If Others, specify

_____

29 Based on your experience, what do you think are the main human-induced causes of climate change/variation in your community?

☐ Bush burning
☐ Bad farming methods
☐ Deforestation
☐ Illegal mining (Galamsey)
☐ Sand winning
☐ Others

29a If Others, specify

_____

30 Have you noticed any changes in the frequency or intensity of the human-induced causes of climate change over the past five years?

☐ Yes, they have increased
☐ Yes, they have decreased
☐ No, they have remained the same

31 Have your farming activities been affected by the climate changes?

☐ Yes ☐ No

32 If yes, how has it been affected?

☐ Reduced crop yield/production
☐ Crop failure
☐ Increased pest infestation
☐ Soil degradation
☐ Disease outbreak
☐ Water scarcity
☐ Others (please specify)

32a If Others, specify

_____

33 How have droughts impacted your crops in recent years?

☐ No effect
☐ Slightly reduced yields
☐ Greatly reduced yields
☐ Caused total crop failure

34 Do you have access to weather information (e.g., forecasts, rainfall alerts)?

☐ Yes ☐ No

35 Where do you mostly get your weather information?

☐ Radio/Televisions
☐ Extension officers
☐ Mobile alerts
☐ Other farmers
☐ Community Information centres
☐ New Media (Online and social media)
☐ Others

35a If Others, specify

_____

36 Have you observed shifts in planting and harvesting seasons over the years?

☐ Yes ☐ No

37 How has climate variability affected the cost of farming inputs (fertilizer, seeds, etc.)?

☐ Increased ☐ Decreased ☐ No change

38 Do you believe climate change has significantly reduced your overall farm productivity?

☐ Yes ☐ No

39 How do these climate challenges affect your household's food security?

☐ No impact ☐ Slight impact ☐ Moderate impact ☐ Severely impacted

D. Climate Adaptation Strategies

40 Have you adopted any strategies to cope with climate change?

☐ Yes ☐ No

41 If yes, which strategies do you use (tick all that apply)

☐ Drought Resistant Crop Varieties/ improved seedlings
☐ Crop rotation and diversification
☐ Soil conservation techniques
☐ Early planting
☐ Use of organic fertilizers
☐ Compost preparation
☐ Afforestation/Natural regeneration
☐ Use of indigenous knowledge
☐ Use of improved animal breeds
☐ Others

41a If Others, specify

_____

42 How effective are these climate adaptation strategies in mitigating the impact of climate-related challenges?

☐ Very effective ☐ Effective ☐ Moderately effective ☐ Slightly effective ☐ Not effective

43 What are the main challenges you face in implementing these strategies?

☐ Lack of financial support
☐ Limited knowledge
☐ Low supply for improved inputs (seeds, tools and equipment)
☐ High market prices for improved inputs (seeds, tools and equipment)
☐ Limited/Low turnover of labourers
☐ Others (specify)

43a If Others, specify

_____

44 What role do local authorities and organizations play in supporting climate adaptation strategies?

☐ Providing training and education
☐ Offering financial assistance
☐ Supplying farming inputs
☐ Other (please specify)

44a If Others, specify

_____

45 How do you prioritize which climate adaptation strategies to implement?

- ☐ Based on effectiveness
- ☐ Based on cost
- ☐ Based on ease of implementation
- ☐ Other (please specify)

45a If Others, specify

_____

46 Have you noticed any improvements in your farming activities since implementing climate adaptation strategies?

- ☐ Yes, significant improvements
- ☐ Yes, moderate improvements
- ☐ No improvements
- ☐ No, conditions have worsened

47 Have you received any training on climate adaptation strategies in the farming sector?

☐ Yes ☐ No

48 If yes, who provided the training?

- ☐ Government agencies
- ☐ NGOs
- ☐ Development Partners / Donors
- ☐ Others (please specify)

48a If Others, specify

_____

49 When was your last training? in months

_____

50 Would you be interested in attending training on climate adaptation strategies?

☐ Yes ☐ No

51 If yes, which climate adaptation practices would you be most interested in receiving training on?

- ☐ Water conservation practices
- ☐ Soil conservation practices

51a Water Conservation

- ☐ Irrigation
- ☐ Rainwater harvesting
- ☐ Water recycling and reuse
- ☐ Moisture conservation

☐ Drip and sprinkler

51b Soil Conservation Practices

☐ Cover cropping ☐ Mulching ☐ No till farming ☐ Crop rotation ☐ Contour plowing

52 Would you be open to attending a paid training opportunity/workshop on climate adaptation strategies?

☐ Yes ☐ No

53 What additional support do you need to improve your adaptation strategies?

_____

E. Impact of Climate Adaptation on Income, Yield and Food Security

54 How has the use of climate adaptation strategies affected your agricultural yields?

☐ Increased significantly
☐ Increased moderately
☐ No change
☐ Decreased moderately
☐ Decreased significantly

55 How has the use of climate adaptation strategies affected your food security?

☐ Improved significantly
☐ Improved moderately
☐ No change
☐ Worsened moderately
☐ Worsened significantly

56 If there has been an improvement, how many meals per day did your household consume before adaptation?

☐ No meals
☐ 1 meal per day
☐ 2 meals per day
☐ 3 meals per day
☐ More than 3 meals per day

57 How many meals do you consume now?

☐ 1 meal ☐ 2 meals ☐ 3 meals ☐ More than 3 meals

58 How has the use of climate adaptation strategies affected your income generation?

☐ Increased significantly
☐ Increased moderately
☐ No change
☐ Decreased moderately
☐ Decreased significantly

59 If there has been an increase in income, what was your annual income level before adaptation? In GHS

_____

60 What is your current annual income level?

_____

Record your current location

latitude (x.y °); longitude (x.y °); altitude (m); accuracy (m)

_____

Thank you.