

Baseline Study for SWEF Project in Mozambique

Survey Identification		General information	
Questionnaire number		Province	
Name of enumerator		District	
Code of enumerator		Name of village/town	
Date of interview		Language of interview	
Time started		Agro-ecological zone	1. Sudan Savannah
Village location	1. Treatment area 2. Control area		2. Guinea Savannah
GPS coordinates of the homestead			3. Transitional zone

Section A: Socio-demographic characteristics of respondents

A.1 Name of respondent	
A.2 Age	
A.3 Sex 1= Male 2= Female	
A.4 Relationship to household head 1= Head 2= Spouse 3= Son/Daughter 4= Son/Daughter in law 5= Father/Mother 6= Father/Mother in law 7= Brother/Sister 8= Grandchild 9= Other relative 10= Non-relative	
A.5 Marital status 1= Married (monogamous) 2= Married (polygamous) 3= Single, 4= Divorced, 5= Widowed	
A.6 Family type 1= nuclear 2= extended 3= other (specify)	
A.7 Household size	
A.8 Number of children	
A.9 Years of education	
A.10 Religion 1= Islam 2= Christianity 3= Traditional 4= Others specify	
A.11 Ethnicity/Tribe 1.=Hausa 2.= Dagomba 3.= Mamprusi 4.= Gonja 5.= Grussi/Frafra 6.= Dagarti 7.= Kusasi 8.=Kassena-Nankani 9.= Konkomba 10.=Nanumba 11.= Builsa 12.= Akan 13.= Guan 14. other, specify	
A.12 Status in the locality 1= chief 2= village executive 3= member 4= Migrant 5= Religious leader 6= political party leader 7=other (specify)	
A.13 Highest level of formal education completed (years)	

A.14 Occupation (List main and secondary occupation according to time spent)			
1= Farmer (other crops, livestock and aquaculture) 2=Non-farm owned business (e.g. tailoring, etc); 3=Casual labourer on another farm 4=Civil/public servant; 5.=Housewife 6=Unemployed; 7= Student; 8.=Retired; 9.= Other, specify			
a. Main occupation	b. Secondary occupation		
A.15. Other sources of income: Please specify			
A.16. Please specify if A 14 includes option 2 (non-farm business)			
A.17 Experience in own farming activities (years)			
A.18 For how many years have you been cultivating maize?			
A.19. Are you a member of any organization/group? 1= Yes 2= No			
A.20. If yes, which organization/group do you belong to? 1=FBO; 2=Saving and loans; 3=religious group; 4= Others specify...			
Please indicate total number of household members in their respective category as in the table below			
Household member	Gender		Age
	Male	Female	

Section B. Land tenure

We would like to ask some questions about all the land which the household used either free of charge or rented in 2018. Please record all information per plot (maximum of 5 plots).

Plot ID	Size 1. Acre 2. Pole 3. Hectare	Household member responsible for this plot 1=Household head 2=Spouse 3=child	Land tenure See code below	Years of ownership if the farmer owns the land	Years of usage	If rented, what is the cost of renting per year (per acre)? (if option 6 is chosen)	Did the household have a deed on this plot? 1. Yes 2. No	What kind of deed? 1. Certificate (deed from Lands Commission) 2. Letter from village chief 3. Contract of sale 4. Other, specify	Did the household have the right to sell the plot or to use it as collateral? 1. No 2. Sell 3. Collateral 4. Both	If the plot were to be sold now, how much would it be worth? (GHS)	Main land use See code below		What is the distance from the homestead to the plot? 1=walking minutes 2=KM 3=Miles
											a	b	
	LT1	LT2	LT3	LT4	LT5	LT6	LT7	LT8	LT9	LT10	LT11	LT12	LT13
1													
2													
3													
4													
5													

Code LT 3

1. Owned by respondent
2. Owned by other household member
3. Owned by family
4. Community land, distributed by the chief
5. Land made arable by the household
6. Rented-in for fixed pay
7. Sharecropper (Abunu)
8. Sharecropper (Abusa)
9. Other, specify

Code LT11/LT12

(up to 2 answers per plot)

1. Rented-out for maize cultivation
2. Rented out for cultivation of other crop production
3. Sharecropped-out for maize cultivation
4. Sharecropped-out for other crop production
7. Forest
8. Pasture
9. Bushland/wetland
10. Fallow
11. Cultivation of cash crops
12. Cultivation of maize
13. Cultivation of other food crops
14. Other, specify

SECTION C: Plot-level Characteristics

Make sure to include all the plots owned/operated by the HH. Please record information per plot.

Plot ID	Slope of this plot See code below.	Vegetation before you started farming on the plot? See code below	What is the Current vegetation See code below.	What is the major type of soil of this plot? 1=sandy 2=loamy 3=clay 4=laterite 5=other, specify	Rank the level of erosion of the plot See code below	Soil quality (fertility) 1=infertile, 2=moderately fertile 3=fertile 4=highly fertile	Which crops do you plant on this plot? See code below	What was the use of this plot prior to planting maize? See code below		Were there trees on the plot before? (1=yes, 2=no)	If yes what type of trees? 1=Cashew 2=Timber 3=Dawadawa 4=Mango 5=Cocoa 6=Timber 7=others.....	Have you cut down some of the trees since you started farming on the plot? (1=yes, 2=no)
	PL 1	PL 2	PL 3	PL 4	PL 5	PL 6	PL 7	PL 9	PL 10	PL 11	PL 12	PL 13
1												
2												
3												
4												
5												

Code for PL 1

1=flat
2=moderate
3=steep

Code for PL 3

1=forest,
2= semi forest,
3= savanna

Code for PL 9-10

1=rented-out
2=fallow
3=tree plantation
4=virgin land
5=grazing
6=maize
7=rice

8=cereals other than maize/rice
9=legumes
10=root/tuber
11=vegetables
12=fruits
13=banana
14=flower
15=other crop (specify)
16=borrowed-out

Code for PL 2

1=forest (>200 trees),
2=semi-forest (200 to 50 tree)
3=savanna (<50 trees)

Code for PL 5

1=no erosion
2=minimal erosion
3=moderate erosion
4=eroded

5=severe erosion)

Code for PL 7

1. Maize
2. Cashew
3. Cotton
4. Groundnut
5. Sorghum
6. Mango
7. Millet
8. Rice
9. Soybeans
10. Yam
11. Vegetables
12. Other, specify

Section D: Adoption of Sustainable Agricultural Strategies (SASs)

This section intends to know your current usage of sustainable agricultural strategies

Sustainable Agricultural Strategies (SASs)	Have you ever used this technology for your maize production?		Did you discontinue the use of SASs at any point?		Did you re-adopt the SAS?		How did you acquire knowledge on SASs? (Code SA10)			
	If yes, in which year did you use it for the first time?	If no, why have you never adopted this technology?	If yes, in which year did you discontinue? If there are several times of discontinuation, please answer about the last one.	If yes, why did you discontinue this SASs?	If yes, in when (year) did you re-adopt?	If there are several times of re-adoption, please answer about the last one after the last discontinuation.				
	1=yes 2=no	If 1=yes, in which year?	Extent of adoption (in terms of plot size)	If 2=no, reason for non-adoption. See code below	1=yes 2=no	If 1=yes, in which year?	If 1=yes, reason for discontinuation. See code below	1=yes 2=no	If 1=yes, in which year?	
	SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8	SA9	SA10
Conservation Agriculture										
Minimum/zero tillage										
Cover cropping/Mulching										
Use of leguminous crops										
Crop rotation										
Intercropping										
Ripping										
Others, specify.....										
Crop diversification										
Using improved /drought resistant varieties										
Changing planting date										
Changing crops										

Other, specify.....										
Soil and Water Conservation										
Grass stripping										
Contour ploughing										
Terracing										
Stone bunding										
Earth bunding										
Zai technique										
Others, specify.....										
Soil Fertility										
Application of manure										
Compost Application										
Organic fertilizer										
Others, specify.....										

Code for SA4/SA7: 1=not aware of this technology
2=lack of technical know-how 3=lack of cash/credit 4=not
profitable. 5=unavailability of labor 6=unavailability of

product (herbicide/fertilizer/improved variety seed)
7=unavailability of service (tractor) 8=others, specify.
Code for SA10: 1=own experimentation 2=observation
of neighboring farmers (without direct instructions)

3=taught by neighboring farmers 4=government
extension agents 5=media 6=non-government agencies
7=private institutions 8=others, specify

Sustainable Agricultural Strategies (SASs)	SA12. Why do you practice these strategies? <i>You can select more than one reasons.</i>				
	SA12a	SA12b	SA12c	SA12d	Codes SA12
Conservation Agriculture					1=Improve production 2=Reduce, prevent, restore land degradation (soil, water, vegetation) 3=Conserve ecosystem 4=protect a watershed/ downstream areas – in combination with other Technologies 5=Preserve/ improve biodiversity 6=Reduce risk of disasters (e.g. droughts, floods, landslides) 7=Adapt to climate change/ extremes and its impacts (e.g. resilience to droughts, storms) 8=Mitigate climate change and its impacts (e.g. through carbon sequestration) 9=Create beneficial economic impact (e.g. increase income/ employment opportunities) 10=create beneficial social impact (e.g. reduce conflicts on natural resources, support marginalized groups) 11=other purpose (specify).....
Minimum/zero tillage					
Cover cropping/Mulching					
Use of leguminous crops					
Crop rotation					
Intercropping					
Ripping					
Others, specify.....					
Crop diversification					
Using improved /drought resistant varieties					
Changing planting date					
Changing crops					
Other, specify.....					
Soil and Water Conservation					
Grass stripping					
Contour ploughing					
Terracing					
Stone bunding					
Earth bunding					
Zai technique					
Others, specify.....					
Soil Fertility					
Application of manure					
Compost Application					
Organic fertilizer					
Others,specify.....					

SA13. Have you ever increased your farm size in the last two farming seasons? 1=yes; 2=no

SA14. If yes, why did you increase your farm size?.....

SA15. If SA13 is yes, by how many acres have you increased your farm land?

SA16. If SA13 is no, why haven't you increased your farm size?.....

Section E. Perception of sustainable agricultural strategies

First, tick relevant impacts (tick boxes on the left, several answers possible). Then, for each selected impact, tick the extent and specify/ quantify if possible.

P1. Socio economic impacts

Production	decreased	1	2	3	4	5	6	7	increased
crop production	decreased								increased
crop quality	decreased								increased
production area (new land)	decreased								increased
Income and costs	decreased								increased
expenses on agricultural inputs	decreased								increased
farm income	decreased								increased
diversity of income sources	decreased								Increased
Other socioeconomic impacts									

P2. Sociocultural impacts

food security/ self-sufficiency	decreased	1	2	3	4	5	6	7	increased
health situation	worsened								improved
Network among members	worsened								improved
Migration	decreased								improved
Other sociocultural impacts									

P3. Ecological impacts

Soil	decreased	1	2	3	4	5	6	7	increased
soil moisture	decreased								increased
soil organic matter	decreased								increased
soil loss	increased								decreased
Biodiversity: vegetation,									
vegetation cover	decreased								increased
pests/ diseases	decreased								increased
External inputs									
Inorganic fertilizer	increased								decreased
Pesticides	increased								decreased
Herbicides	increased								decreased

1=Very negative (– 50-100%); 2=Negative (– 20-50%)
3=slightly negative (– 5-20%); 4=Negligible impact;

5=slightly positive (+5-20%); 6=Positive (+20-50%);
7=Very positive (+50-100%)

SECTION E. Maize crop budget

E.1. Input use for Maize_Production.

The questions below refer to 2018 farming season. Please name all external inputs (inorganic fertilizer, herbicides, pesticides) applied on the maize plots between January and December 2018.

Please refer to Section C.

Plot ID	Planting							Inorganic fertilizer Use						Herbicide			Other Chemical		
	What was the area planted to maize? (acre)	Name of the Maize Variety See code below	How did you obtain the seed? See code below	From whom did you obtain the seed? See code below	Quantity of seed used on this plot (kg)	Total Cost of seed (kg) used in GHC	How did you sow this crop on this plot in farming season 2018? See code below	Did you apply fertilizer? 1=Yes 2=No	If yes to MP08				If MP08=1 Total cost of fertilizer	Did you use herbicide for weeding during this crop growing stage? 1=Yes 2=No	If MP14=1 what is the quantity used?	If MP14=1 Total cost of herbicide used (GHC)	Did you use insecticide/fungicide? 1=Yes 2=No	If MP17=1, what is the quantity used?	If MP16=1 Total cost of other chemicals (GHC)
									1 st application		2 nd application								
									Type of fertilizer See code below	Quantity used (kg)	Type of fertilizer See code below	Quantity used (kg)							
	MP01	MP02	MP03	MP04	MP05	MP06	MP07	MP08	MP09	MP10	MP11	MP12	MP13	MP14	MP15	MP16	MP17	MP18	MP19
1																			
2																			
3																			
4																			
5																			

Codes for MP02

1=Obatanpa;
2=Golden Jubilee;
3=Mamaba (hybrid);
4=Abelechi (Abelechi);
5=Dorke SR;
6= Okomasa;
7=Etubi (hybrid);
8=Dodzi;
9=Omankwa;
10=Akposoe;
11=Abontem;
12=Golden Crystal;
13=Sanzal sima
14=Ewul buoyo
15=Wang data

16=Agric;

17=local/traditional/;
18= do not know;
19=imported hybrid (specify _____);
20=Other(specify _____)

Code for MP03

1=Purchased without subsidy
2=In-kind credit
3=Gifted 4=Own production;
5=Purchased through subsidy

Code for MP04

1=Extension worker
2=Other farmer in the village
3=Other farmer outside the village
4=Own production
5=Local market
6=Trader
7=Other(specify)

Code for MP07

1=broadcasting before ploughing
2=broadcasting after ploughing
3=dibbling randomly
4=dibbling in a line
5=drilling
6=transplanting (exclude cases
Where transplantation was used for only small part of the plot)

Code for MP09/MP11

1=NPK
2=Urea
3=ammonium sulfate
4=other, specify

E.2. Input costs – hired and family labor

L1. What was the wage rate per man-day during 2018 farming season?.....

L2. Was the male wage rate different from that female workers? 1=Yes 2=No

L3. If yes, what was the rate for female?.....

L4. Please count all hired and family laborers during the 2018 farming on the farmer's maize plots. Please count working days for each task for each plot for the whole year 2018. Please include cash and in-kind payments when calculating the average pay per day by task. Please repeat these questions for each plot if possible.

Plot ID	Activity	L5. Did you hire any worker? 1.Yes 2.No	L6. Type 1=Permanent 2=temporary)	L7. Number of hired workers			L8. Total number of man days	L9. Did you use family labour? 1.Yes 2.No	L10. Number of family labour			L11. Total number of man days per each worker	L12. Cost of family per man-day.
				L7a. male	L7b. female	L7c. Total no. of labourers			L10a. Adult Men	L10b. Adult Female	L10c. Children Under 15 yrs.		
	Land preparation and ploughing or ripping												
	Harrowing												
	Planting												
	Applying agrochemical inputs												
	Fertilizer												
	Insecticide/pesticide												
	Herbicide/weedicide												
	Weeding control												
	1 st weeding												
	2 nd weeding												
	3 rd weeding												
	Sustainable agricultural strategies												
	Harvesting												
	Shelling												
	Bagging and weighing												
	Storing												

E.3. Maize input costs – other expenditures

Please list all other expenditures related to maize cultivation on the farmer's plot incurred during 2018 farming season.

		Total amount spent in 2018 (GHS)
OE1	Cost of implementing sustainable agricultural strategies	
OE2	Purchase or rental of agricultural equipment (e.g. spaying machines, hand tools, bags, drying mats)	
OE3	Transportation costs (e.g. for buying inputs, bringing maize from farm to home, bringing maize to point of sale)	
OE4	Other farm-related expenditures, specify	

Section F: Use of external inputs

	External input use	Herbicide	Fertilizer	Pesticide	Others
E11	In which year did you start using external input (s)?				
E12	Have you been applying external inputs(s) on your farm in the last 3 farming seasons? 1=Yes 2=No				
E13	If yes, why are you using it?.....				
E14	If no, why are you no using it?.....				
E15	Name of external input(s) you are using currently				
E16	Have you reduced the amount of external inputs use? 1=Yes 2=No				
E17	If yes, by how much? Please quantity in percentage terms.				
E18	What is your recommended dosage (lit./Kg /acre)				
E19	Were you using another one before 1=yes, 2=No				
E20	If yes, why did you stop using it?				
E21	Who recommended to you what you are currently using?				
E22	Who applies it for you on your farm?				
E23	If self, are you trained on the use 1=yes; 2=No				

Section G. Maize Harvest

Please indicate the quantity of maize harvested with the corresponding plot ID, as well as the distribution of the harvests during 2018 farming season.

Plot ID	Quantity of maize harvested (kg)	Quantity consumed (kg)	Quantity sold (kg)	Quantity stored as seed (kg)
	MH1	MH2	MH3	MH4
1				
2				
3				
4				
5				

Section H. Maize sales

MS1. How do you access market information? 1=neighbor, 2=FBO, 3=Mobile phone, 4=Radio, 5=Extension agents, 6=others specify...

Please ask for all maize sales of the respondent for the produce harvested in 2018 farming season. One maize sale includes all the maize sold to the same buyer at the same price. In case you sell to the same buyer later for a different price, it is counted as another sale. Please ask these questions for each plot.

Sale ID	MS2. Maize revenue			To whom did you sell? 1. Farmer; 2. local trader 3. Institution/company 4. Other, specify	Where did you sell the produce? 1-Farm gate 2-Local village 3-Neighboring town/village 4-big town market 5. Other, specify	When did you sell? [month, aggregate several sales to one buyer within one month]	What is the distance to nearest market? 1=walking distance 2=KM; 3=Miles; 4=Others specify
	Quantity sold (refer to Section G, MH3)	Unit	Price per unit (GHS)				
	MS2a	MS2b	MS2c	MS3	MS4	MS5	MS6
1							
2							
3							
4							
5							

SECTION I. Other crop production

OC1. Do you cultivate other crops apart from maize? 1=Yes 2=No

If yes, Please complete the table below.

The following questions refer to other crops which the household cultivated during the 2018 farming season on all plots that the household owns or has access to. This also includes crops that are intercropped with maize on the respondent's plots. Please only record crops (from 2018 harvest) that are sold and not only grown for home consumption.

Plot ID	Crop type			What is the area (in the specified unit) planted to these crops?			What is the main purpose of cultivating this crop?			Total yield (please specify the unit) See code below			How much was sold? (kg)			Price per unit (kg) (GHS)			What is total cost of planting seeds (GHS)			What is the total expenditure for agrochemical inputs (fertilizer, Insecticides)?			Please state other expenditures if any		
				Unit 1. Acres 2. Plot 3. Pole			1.Home Consumption 2. For the market																				
	O C2	O C3	O C4	O C5	O C6	O C7	O C8	O C9	OC 10	OC 11	OC 12	OC 13	OC 14	OC 15	OC 16	OC 17	OC 18	OC 19	OC 20	OC 21	OC 22	OC 23	OC 24	OC 25	OC 26	OC 27	OC 28
1	a	b	c	a	b	c	a	b	c	a	b	c	a		b	c		a	b	c	a	b	c	a	b	c	
2																											
3																											
4																											
5																											

Code OC2-OC4

1. Cashew
2. Cotton
3. Groundnut
4. Sorghum
5. Mango
6. Millet
7. Rice
8. Soybeans
9. Yam
10. Other, specify

Code OC11-13

1. Bowl
2. Hundred
3. Kg
4. Maxi bag
5. Metric ton
6. Mini bag
7. Pound
8. Other, specify

SECTION J: Migration

M1. Were you born in this village/community? 1. Yes ; 2. No	
M2. If no, when did you move to this village/community? (year)	
M3. Place of birth 1=Outside this village, same district; 4=Outside Ghana 2=Outside this district, same region; 3=Other region in Ghana	
M4. Why did you move to this village/community instead of somewhere else? [PLEASE LIST ORDER OF IMPORTANCE] 1 High production and productivity of agriculture 2.Availability of fertile lands /high soil fertility 3. High level of income 4. Employment, seasonal employment 5. Small sized land holdings 6. Good educational facilities 7. Adequate health-care services 8. Lack of infrastructural facilities 9. Evil social customs and practices 10. Others.	
M5. Have you ever lived outside this area [DISTRICT/TOWN/CITY] in the last 3 years? 1. Yes ; 2. No	
M6. If yes, where did you go? 1=Outside this village, same district 4=Burkina Faso 7=Nigeria 2=Outside this district, same region 5=Côte d'Ivoire 8=Togo 3=Other region in Ghana 6=Mali 9=Other, specify	
M7. If yes, for how long?	
M8. Has any household member ever lived outside this area [DISTRICT/TOWN/CITY] in the last 3 years? 1=Yes; 2=No	
M9. If yes, how many?	
M10. How long did they stay?	
M11. What were the reasons for migrating? [PLEASE LIST ORDER OF IMPORTANCE] 1 Low production and productivity of agriculture 2.Scarcity of fertile lands /low soil fertility 3. Low level of income4. Unemployment, under-employment, seasonal unemployment 5. Small sized land holdings 6. Act of proper educational facilities 7. Lack of health-care services 8. Lack of infrastructural facilities 9. Evil social customs and practices 10. Others.	
M12. Do you are any member of your household plan migrating to any other town/city? 1=Yes; 2=No	
M13. If yes, how long?	
M14. If yes, what is the reason for the planned migration? 1=Access to fertile land; 2=off farm labour; 3=education; 4=others specify.....	

SECTION K: Household Assets

Asset		A1. Number of items solely by owned HH	A2. Total value (GHC) (current value)	In the past 12 months		Asset		A1. Number of items solely owned by HH	A2. Total value (GHC) (current value)	In the past 12 months	
				A3a. Number of items purchased	A3b. Number of items sold					A3a. Number of items purchased	A3b. Number of items sold
Farm implement						Other Items					
Tractor	1					Bicycle	14				
Plough	2					Radio	15				
Carts	3					Iron	16				
Wheelbarrows	4					TV	17				
Harrow	5					Mobile Phone	18				
Motorised spraying machine	6					Satellite dish/ Multi TV/DSTV	19				
Knapsack sprayer	7					Chair/Sofa	20				
Water tanks	8					Table	21				
Beehives	9					Bed/ mattresses	22				
Trailers	10					Refrigerator	23				
Grinders	11					Motorbike	24				
Hand hoe	12					Vehicle	25				
Husking machine	13					Tricycle	26				
Other agricultural equipment, specify	50										

On the respondent's house

A4: Is this house your own? 1= yes 2=no

A5: How old is this house ?.....years old

A6: What is the worth of your house now?.....GHC (approximation)

A7: Roof material (multiple response applicable) 1=grass thatched; 2= iron sheet; 3=roofing tile; 4=wood; 5=cement/concrete; 6=other.....

A8: Wall material?.....1=mud; 2=bricks/stones; 3=wood; 4=iron sheet; 5=other.....

A9: Floor Material?.....1=cement; 2=earth; 3=other.....

SECTION L: Livestock

Livestock Type	Livestock Code	Oct 2017			Sept 2018			Change in Number in the last 12 months		
		Number Owned by HH members		Total value in GHC	Number Owned by HH members		Total value in GHC	Number Consumed at home	Number bought	Number sold
NAME	LI CODE	LI1a. Male	LI1b. Female	LI2	LI3a. Male	LI3b. Female	LI4	LI5	LI6	LI7
Cows	1									
Goats	2									
Sheep	3									
Chicken	4									
Pigs	5									
Donkeys	6									
Guinea Fowls	7									

Section M: Consumption and Expenditure on Major Items (Non-Durable Goods) in the Past 12 Months

Product Consumed	Total consumption including from own production/gift and purchase. Then, the respondent estimates its total value in the market.				Product Consumed	E1. Total expenditure (GHC)	
	C1a. Quantity	C1b.Unit (code)	C1c. Total Value (GHC)				
LAST ONE WEEK					LAST ONE MONTH		
Maize grain	1		kg		Salt	24	
Maize meal/flour	2		kg		Coffee/Tea: powder	25	
Millet/Sorghum	3		Kg		Drinks (including alcohol)	26	
Wheat flour	4		Kg		Tobacco/Cigarettes	27	
Rice	5		Kg		Electricity	28	
Cassava (Fresh form)	6		Kg		Cellular phone charge	29	
Cassava (Processed)	7		Kg		Firewood	30	
Sweet potatoes	8		Kg		Cow dung	31	
Irish potatoes	9		Kg		Charcoal	32	
Yam	10		Kg		Kerosene/Gas	33	
Beans	11		kg		Soap/washing products	34	
Bread	12		Loafs		Last 12 MONTHS		
LAST ONE MONTH					School fee, textbooks, etc	35	
Ground nuts	13		Kg		Medical care	36	
Green Peas	14		Kg		Transportation	37	
Chicken	15		Kg		Clothing/Shoes	38	
Meats (any)	16		Kg		Contributions		
Fish	17		Kg		Susu	39	
Eggs	18		Number		Remittances to relatives	40	
Milk	19		Tin		Mosques/Churches	41	
Vegetable	20		Kg		Credit repayments	42	
Fruit (specify).....	21		Number		Mutual support group (funeral)	43	
Sugar	22		Kg		Mutual support group (non-funeral)	44	
Cooking oil/Butter	23		liters		Other local organizations	45	

Unit Code for C1b
1=90 kg bag
2=50 kg bag
3=25 kg bag
4=10 kg bag
5=2 kg bag
6=kgs
7=grams
8=litres
9=tones
10=numbers
11=bunch (banana)
12=wheelbarrow
13=cart load
14=crate

15=head load
16=other (specify)

SECTION N: FOOD SECURITY

FS0. Was the Household able to provide adequate food for its members during the year 2018? **0=No 1=Yes**

FS1. Which months of the year does the household have food in abundance (multiple choice) 1=Jan 2=Feb 3=Mar 4=Apr 5=May 6=Jun 7=Jul 8=Aug 9=Sept 10=Oct 11=Nov 12=Dec

FS2. Which months of the year does the household have just adequate food? (Multiple choice) 1=Jan 2=Feb 3=Mar 4=Apr 5=May 6=Jun 7=Jul 8=Aug 9=Sept 10=Oct 11=Nov 12=Dec

FS3. Which months of the year does the household barely have enough food (lean period) (multiple choice) 1=Jan 2=Feb 3=Mar 4=Apr 5=May 6=Jun 7=Jul 8=Aug 9=Sept 10=Oct 11=Nov 12=Dec

FS4: Did you or any household member go hungry within a whole day and night without eating anything because there was not enough food? 1=yes, 2=no

FS5: If yes, how often did it occur in 2018?

If No, how did you manage food distribution in the household?

	Abundance period	Period of average availability	Lean period
Number of meals per day (on average)			
If less than 3, give reasons			
Number of days per month you took only two meals per day because of lack of money/food			
Number of days per month you took only one meal per day because of lack of money/food			
Number of days without food in the period because of lack of money/food			
Number of months in which you did not have enough food to meet your family's needs (cut the size of your meals)?			

FS 6: Dishes eaten and ingredients for each dish by period

Periods	Major food ingredient				Code for food groups
	Food groups for HDDS	Code	No. days consumed within a week	Quantity (kg) per day	
Abundance period	Cereals, roots, and tubers				1=rice, 2=maize, 3=millet, 4=sorghum, 5=cassava, 6=groundnut, 7=cowpea, 8=onion, 9=tomato, 10=sweet potato, 11=eggplant, 12=okra, 13=banana, 14=mango, 15=Pineapple, 16=orange, 17=cashew nut, 18=potatoes, 19=yam, 20=bambara beans, 21=beans, 22=leafy vegetables, 23=peanuts, 24=okra, 25=palm nut, 26=cowpea (leaves), 27=fish and seafood, 28=meat, poultry, guinea fowl, 29=snail, 30=egg, 31=oil/fats, 32=milk and milk products, 33=lettuce, 34=Other specify
	Pulses and legumes				
	Vegetables				
	Fruits				
	Meats, fish and seafood, and eggs				
	Dairy products				
	Oils and fats				
Period of average availability	Cereals, roots, and tubers				
	Pulses and legumes				
	Vegetables				
	Fruits				
	Meats, fish and seafood, and eggs				
	Dairy products				
	Oils and fats				
Lean period	Cereals, roots, and tubers				
	Pulses and legumes				
	Vegetables				
	Fruits				
	Meats, fish and seafood, and eggs				
	Dairy products				
	Oils and fats				

SECTION O: Extension and Training

HH See code below	Did any member of HH received any extension visits in the last two years? 1=yes 2=no	Extension service provider See code below	Frequency of visit See code below	How satisfied are you with the content of information provided by the extension service?	Did any member receive training 1=yes 2=no	Provider of training See Code below	What kind of training?	Number of days of training in the last 2 seasons	How satisfied are you with the content of training provided by the extension service?
	EX1	EX2	EX3	EX4	EX5	EX6	EX7	EX8	EX9

Code for EX2/EX6: 1=agricultural extension agents, 2=extension worker from NGO, 3= private extension agents, 4=Farmer based organization, 5=other (specify)

Code for EX3: 1=weekly, 2=monthly, 3=once in 3 months, 4=once every 6 months, 5= Once a year a year, 5=others, specify.....

HH: 1. Household head 2. Spouse 3.Children (Male adults) 4.Children (Female adults);

Code for EX7: 1=Sustainable Agricultural Strategies, 2=Maize production; Farming as a business, 3= Records Keeping, 4=others, please specify.....

Code for

EX4/EX9: 1=very satisfied, 2=somewhat satisfied, 3=not satisfied, 4=totally unsatisfied

SECTION P: Access to credit

AC1. Do you face credit constraints in your farm operations? 1=yes; 2=no

AC2: If yes, do you source credit to finance your farm operations?..... 1=yes; 2=no

AC3: If no, please state the reasons for not sourcing credit?

AC4: If yes, please indicate name of credit agency.....

AC5: What are your other sources of finance for your farm operations?.....

AC6: Did you source credit for your farm business in the 2018 farming season? ----- 1=yes; 2=no

AC7: If yes, what form was it 1=cash; 2= in-kind (3) Other (specify).....

AC8: Did you pay with interest?..... 1=yes; 2=no

AC9: What was the interest rate?..... (in percentage)

AC10: what was the average repayment period months?

AC11: Are you aware of other farming credit sources in your locality? 1=yes; 2=no

AC12: If yes please name them.....

AC13: Have you sourced credit from them before?.....1=Yes; 2=No

AC14: If yes, do you still source credit from them and why?.....

AC15: Did you enjoy any input subsidies from government in the 2018 farming season?

AC16: If yes to AC15, on which inputs, ...

AC17: If yes to AC15, how much per input?.....

AC18: If yes to AC15, what was the repayment plan?.....

Section Q: Access to Insurance

AI1. Are you aware of agricultural insurance? 1=Yes 0= No

AI2. If yes, have you ever purchased insurance products to cover your maize farm? 1=Yes 0= No

AI3. If No to **AI2**, why have you not purchased insurance product? 1=Lack of funds, 2=No idea of how it works, 3=It doesn't pay, 4.Other, specify_____

If you have ever purchased an insurance product please answer the following questions

AI4. What type of product did you purchase?..... 1=Area yield; 2=Multi-Peril; 3=Drought Index

AI5. Give reasons why you purchased this product(s)?.....

AI6. Which year did you purchased your first product? _____

AI7. If you purchased insurance product(s) in the previous farming season, did you repeat the purchase in the subsequent seasons? 1=Yes 0=No

AI8. If Yes to **AI7**, why did you repeat the purchase? 1=Had pay-out when I bought the insurance previously; 2=Had a good harvest; 3=Other_____

AI9. If No to **AI7**, why did you not repeat the purchase in the subsequent seasons? 1. Did not get a pay-out when I suffered a loss; 2.High premium rate; 3. Lack of money; 4. I didn't see the benefits of having insurance 5. Other_____

AI20. Which other crop did you purchase insurance to cover?.....1=Rice; 2=Sorghum; 3=Millet; 4=Others, specify.....

Section R: Social Networks

R1: Relationship and characteristics

Please I want to understand your relationship and interactions with farmers in this community/village.

Farmer s	HH ID	Do you know (X)?	Since when (year) have you known (X)?	What is the age of (X)? (in years)	What is the education al level of (X)? (in years)	In what way is (X) related to you? (Relationship code)	Are you in the same religious congregation with X?	Are you in the same association with (X)? See code below	Have you ever spoken to (X)? 1=Yes 2=No	If SN9 is yes, how often within a month on average do you speak to (X)?	Have you ever been to the house of (X)?	If SN9 is yes, how many times within a month do you visit the house of (X)?	If SN9 is yes, what is the distance between the HH	Is (X)'s farm adjacent to yours?	Have you ever passed by the farm of (X)?	If yes to SN12 , how often within a month do you pass by (X)'s farm	Does X interact with village officials ?
	SN 1	SN2	SN3	SN4	SN5	SN6	SN7	SN8	SN9	SN10	SN11	SN12	SN13	SN14	SN15	SN16	
Farmers from same /community/village																	
1																	
2																	
3																	
4																	

Relationship Codes 1=Parent; 2=Child; 3=Brother/sister; 4=Grandparent; 5=Grandchild; 6=Nephew/Niece; 7=Uncle/aunt; 8=Cousin; 9=Same family lineage; 10=Mother/father in-law; 11=Brother/sister in-law; 12=Other relative; 13=Fellow villager/Neighbour; 14=Attend same church/ mosque; 15=Professional/business colleague; 16=Other, specify.....

Codes SN8: 0=No; 1=FBO; 2=Self-help group; 3=Merry go round; 4=Savings and Credit; 5=Other (Specify)..... **Codes SN17** 1= No, 1=chief, 2=assemblymen/women, 3=village/committee chairman, 4=others specify.....

R2: Information sharing and adoption process

Farmers	HH ID Do you discuss/ Share SASs issues with X?	Does (X) inform you of upcoming extension meetings	Who first told you about sustainable agricultural strategies? (refer to section D for examples of SASs)?	Who convinced you to adopt any of the sustainable agricultural strategies?	When did X adopt the SASs? (years)	Do you exchange more than farming information with X? 1=Yes, 2=No	If yes to SN6, which other information do you share?	How many blood relatives do you have in the community	Do you belong to a royal family	Are/were your parents leaders?
	SN1	SN2	SN3	SN4	SN5	SN6	SN7	SN8	SN9	SN10
Farmers from same village										
1										
2										
3										
4										

Code SN5: 1=Not yet, 2=Before me, 3=At the same time as me, 4=After me
specify.....

Code SN7: 1=credit, 2=labour, 3=marketing, 4=access to inputs, 5=insurance, 6=others

S. Shocks and coping mechanisms

Please list all shocks that hit the household during the past 2 years (2017 and 2018).

	S.0 Shock	S.1. Did the HH experience any of the following shocks in the last 2 years? 1=yes; 2=no	S.2. If S1 is yes, How many times did it occur in the last 2 years?	S.3 If S1 is yes, which year did it occur? (month/ year)	S.4 How much time did it take to economically recover from the shock? 1. < 1 month 2. 1-3 months 3. 4-6 months 4. 7 months-1 year 5. > 1 year 6. Not yet recovered	S.5 What is the likelihood that these shocks will happen again (1-2 years)? 1. Very likely 2. A bit likely 3. Fifty/fifty 4. Not so likely 5 Completely unlikely 6. I don't know
1	Flooding					
2	Long dry spells					
3	Erratic rainfall pattern					
4	Windstorm					
5	Pest and disease					
6	Livestock disease					
7	Bushfire					
8	Increase in prices of farm inputs					
9	Very low market/farm gate price for produce					
10	High unemployment					
11	Sickness of household member					
12	Death of household member					
13	Very low yields					
14	Crop failure					
15	Others, specify					

S.6 How did your HH deal with the shocks?
Please list (4) in order of importance

1. Prayed to God	7. Took children out of school	12. Purchased insurance product
2. Hardworking	8. Sent children to relatives/friends	13. Borrowed money from family/ friends/ neighbors
3. Diversification	9. Adult household member migrated	14. Borrowed money from informal financial institution (pawnshop, moneylender, susu collectors, traders)
4. crop diversification	10. Sold assets	15. Borrowed from formal financial institution (bank, microfinance)
5. Inputs substitution	11. Used savings	16. Government/NGO support
6. Reduction in HH expenditure		17. Support from social networks
7. Use of weather information		18. Other, specify

S6a	S6b	S6c	S6d
-----	-----	-----	-----

S.7. What measures have you (HH) put in place to reduce or prevent these shocks if they reoccur?				
Please list 4 in order of importance				
1. Prayed to God				
2. Hardworking				
3. Diversification				
4. crop diversification				
5. Inputs substitution				
6. Reduction in HH expenditure				
9. Hold savings at formal institution (bank, microfinance)				
10. Hold savings at informal institution (Susu, etc.)				
11. Participate in network activities				
12. Purchase insurance				
13. Other, specify				
S.7.a	S.7.b	S.7.c	S.7.d	