|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |

Questionnaire code

**Baseline – FAW**

**SECTION 1 – DATA HANDLERS**

|  |  |
| --- | --- |
| Date of interview (dd/mm/yyyy) |  |
| Interviewer Name |  |
| County  |  |
| Sub county  |  |
| Community / village  |  |
| GPS coordinates (UTM)  | N: \_\_\_\_\_\_\_\_\_\_\_\_\_GPSN S: \_\_\_\_\_\_\_\_\_\_\_\_\_GPSSE: \_\_\_\_\_\_\_\_\_\_\_\_\_GPSE W: \_\_\_\_\_\_\_\_\_\_\_\_\_GPSWElevation:  |

**SECTION 2: GENERAL HOUSEHOLD INFORMATION**

*Ideal respondent: household head and/or spouse. Most of these questions can be completed without having to question the respondent directly (e.g. gender).*

2.1 Provide details about the primary respondent

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of respondent | Gender1 = Male 0=Female | In which year were you born?  | Primary activity1=farming, 2=salaried employment, 3=business, 4=off farm laborer5= other specify… | Education level1=none 2=Primary, 3=Secondary, 4=Tertiary |
|  |  |  |  |  |

2.2 Is the respondent the head of household?

[ \_ ] YES (1) [\_ ] NO (0)

2.3 If NO, what is the relationship of main respondent to household head? (select one answer)

[ \_ ] Spouse (1)[ \_ ] Parent (2)

[ \_ ] Child (3) [ \_ ] Other family member (4)

[ \_ ] Unrelated (5)

2.4 Provide the following detail about the household head

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of HH head | Gender1 = Male 0=Female | In which year was HH head born?  | Primary activity1=farming, 2=salaried employment, 3=business, 4=off farm laborer5= other specify… | Education level1=none 2=Primary, 3=Secondary, 4=Tertiary |
|  |  |  |  |  |

2.5 How many persons are in your household\*, including yourself and household head? \_\_\_\_\_ persons

2.6 How are these household members distributed across age?

|  |  |  |  |
| --- | --- | --- | --- |
| Age Categories | Males | Female | No. working on the farm at least once a week |
| Age: 0-5 years |  |  |  |
| Age: 6 – 17 years |  |  |  |
| Age: 18-25 years |  |  |  |
| Age: 26-35 years |  |  |  |
| Age: 36 - 55 years |  |  |  |
| Age: >55 years |  |  |  |

2.7 Are all household members ages 6 to 17 currently in school?

[ \_ ] YES (1) [ \_ ] NO (0)

2.8 What is your phone number? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SECTION 3: HOUSEHOLD LAND HOLDING AND MAIZE PRODUCTION**

3.1 How did you use your land in the last and current cropping seasons (2017 and 2018)?

|  |  |  |
| --- | --- | --- |
| Land units (acres/hectares) | Area 2017 | Area 2018 |
| 1. Land owned by household
 |  |  |
| Land under homestead |  |  |
| Cultivated land  |  |  |
| Pasture land  |  |  |
| Fallow land  |  |  |
| Wood lot  |  |  |
| Land rented out  |  |  |
| 1. Land rented in
 |  |  |
| Total land used for all activities by hh (a+b) |  |  |

3.2 **Maize** **Production practices**: In the **LAST** cropping season, did you grow maize? YES/NO

***If NO, skip to section 4***

3.3 If YES, please fill in the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| Identification | Seed / planting material | System | Labour and inputs  |
| Plot ID | plot size(ac/ha) | Planting date (month) | Variety name | Improved variety? | source  **(code b)** | Quantity unit**(code c)** | quantity planted (kg) | Cropping system (**code d**) | If intercrop, with which crop/plant (**use crop list**) | Row planting? | Cost of hired labour  | Organic matter applied last season (**code e**) | Fertilizer applied last season (**code f**) | Pesticide applied last season (**code g)**  | Conservation structures **(code h)** |
| 1 |  |  |  | n – y |  |  |  |  |  | n – y |  |  |  |  |  |
| 2 |  |  |  | n – y |  |  |  |  |  | n – y |  |  |  |  |  |
| 3 |  |  |  | n – y |  |  |  |  |  | n – y |  |  |  |  |  |
| 4 |  |  |  | n – y |  |  |  |  |  | n – y |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **a)crop codes**1=Maize, 2=Tomatoes,3=Cassava, 4=Sweet potatoes,5=Sorghum, 6= Pearl Millet,7= Sunflower, 8 = Sesame,9 = Sugarcane, 10 = Rice, 11= Groundnuts,12= Beans13 = (Other Specify) | **b) source of seed, planting material**1 = Bought, 2 = Saved from own harvest3 =Given by NGO/govt4 = Given by farmer organization/CBO5 = Given by the trader6 = Given by a friend/relative7 = Other specify | **c) quantity unit:**1=Kg , 2=10 Kg bucket, 3=20 Kg bucket4=50Kg bag, 5=Ox cart,6=Medium tubers, 7=Large tubers8=Hand size bunch, 9=Arm size bunch10 = Small bundle (up to 20 cuttings)11 = Large bundle (above 20 cuttings)12 = Other specify | **d) cropping system**1 = Pure stand( mono cropping)2 = Intercropping (two crops)3 = Mixed cropping (more than two crops)4 = Other, specify | **e) Organic matter** 0= nothing; 1= manure;2= compost; 3= biomass transfer; 4= other (specify); | **f) Fertilizer applied:**0= nothing; 1= DAP; 2= urea; 3= NPK4=Urea; 45= other (specify);  | **g) Pesticide used:** 0= nothing; 1= fungicide; 2= herbicide; 3= insecticide; 4= bio-pesticide5= organic pesticide (e.g. neem)6 = other (specify); | **h) conservation structures:**1= none2= soil bunds3= grass strips4= trash lines/stone lines5= retention ditches/water harvesting6= mulching7 = zero tillage9=terraces10= other (specify) |

3.4 **Maize Production and sales**: for each of the crops grown last season, indicate the production and sales of the crop

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Plot ID | Qtty harvested (unit) | Unit of measure | Qtty sold (kg | price / unit | Consumed at home +given away to relatives | fed to livestock | Remaining (store) |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

3.5 **Decision making**: Who makes the decision which crops to grow?

1=Household head, 2=Spouse, 3= Head & spouse jointly,

4=other male hh member, 5=other female hh member, 6=other (specify)

3.6 **Did you use any mechanization last year? 1= yes; 0= no**

3.7 If yes what type of mechanization?

1= oxen

2= power tiller

3= tractor

3.7 **External inputs used on maize production**: for inputs purchased in the last season, provide details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of input (name) | Sold in which units (convert to kg or litre)  | Number of units bought | Price per unit of input | Do you usually use this input?1= yes some times2= yes, very often3= no it was my first time |
| Inorganic fertilizers  |  |  |  |  |
|  |  |  |  |  |
| Organic fertilizers  |  |  |  |  |
|  |  |  |  |  |
| Insecticides /pesticides  |  |  |  |  |
|  |  |  |  |  |
| Herbicides  |  |  |  |  |
|  |  |  |  |  |
| Fungicides |  |  |  |  |
|  |  |  |  |  |
| Seeds |  |  |  |  |
|  |  |  |  |  |

**SECTION 4: SOURCES OF AGRICULTURAL INFORMATION**

4.1 From which sources do you get information on agriculture for you and your household members who are involved in agriculture? *Rank according to importance (i.e. which source provides the most useful information for you?). Rank from 1 -7, where 1 is least important and 7 most important*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a) Receive info from this source? | c) If Yes, For which Crops \* | c) If Yes, for which Practices \*\* | Frequency of receiving information from this source last season\*\*\* |
| My own experience | n – y |  |  |  |
| Neighbours, friends and family | n – y |  |  |  |
| Lead farmer | n – y |  |  |  |
| Agricultural programs on radio / TV  | n – y |  |  |  |
| Government extension officers  | n – y |  |  |  |
| Plant doctor / Plant clinic | n – y |  |  |  |
| Magazine, newspaper | n – y |  |  |  |
| Agro-dealers / input suppliers | n – y |  |  |  |
| Demonstration plots / field days / FFS | n – y |  |  |  |
| Farmer cooperative  | n – y |  |  |  |
| Mobile sms and voice services | n – y |  |  |  |
| Agricultural trade fairs | n – y |  |  |  |
| Other, specify  | n – y |  |  |  |
| 1=Maize, 2=Tomatoes,3=Cassava, 4=Sweet potatoes,5=Sorghum, 6= Pearl Millet,7= Sunflower, 8 = Sesame,9 = Sugarcane, 10 = Rice, 11= Groundnuts,12= Beans13 = (Other Specify) | Practices 1= Crop rotation,2= Time of planting, timely planting?3= Manure use (include compost),4= Inorganic fertilizer use,5= New varieties of crops use of improved varieties?6= Quality seeds (either certified or QDS),7= Intercropping,8= Use of pesticides for pest and disease control 9= Soil and water conservation10= Irrigation 11= markets marketing of produce? | Frequency1= once the entire season, 2= once a month, 3= once every week,4= every day |

4.2 Did you share any of the agricultural information with others?

[ \_ ] YES (1)

[ \_ ] NO (0)

4.3 If yes, with whom did you share information?

[ \_ ] Other household members [ \_ ] Other relatives living outside this community

[ \_ ] Community members / neighbours [ \_ ] Group members

[ \_ ] Other (specify)

4.4 If yes, what topics did you discuss with the persons you share information with?

 (same list as above)

4.5 How many (Number) persons did you share information with?

**SECTION 5: PEST PROBLEMS ON MAIN CROPS**

5.1 What are the main crops you grew last season (in addition to maize for those who grew maize?). Select at most 3, starting with the most important.

**[use crop list]**

5.2 For the main crops you grew, what were the **main** pest problems during last season and what measures did you put in place to manage the pest? *Focus on pest problems encountered more frequently or those that showed greatest loss to the farmer.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a) Crop name | b) pest problems last season | c) What intervention did you put in place for this problem in the last season?\* | d) Have you experienced similar problem this season? | e) If, Yes, what interventions have you applied for this problem this season? |
| 1 | 1.2.3. |  |  |  |
| 2 | 1.2.3. |  |  |  |
| 3 | 1.2.3. |  |  |  |

\*interventions

1. Early planting
2. Plant resistant varieties/tolerant varieties
3. Crop rotation
4. Frequent weeding (to remove alternative host plants)
5. Improve soil fertility – manure or chemical fertilizer
6. Apply ash on larvae, when larvae are very young
7. Applied organic pesticides e.g. neem, tobacco, pepper
8. Intercropping
9. Trap cropping
10. Push-pull
11. Remove crop residues that are damaged by pests or diseases
12. Uprooting and burning of infected plants
13. Application of Pesticide
14. Handpicking egg masses and caterpillars
15. Replanting
16. Biological control options
17. Bio-pesticides
18. Other (specify)

**SECTION 6: FALL ARMYWORM (FAW) PEST**

* 1. Can you correctly identify FAW (use the local language name for FAW or picture guide)?
	2. Has FAW been observed in your farm?

1 = Yes (go to 6.3)

0 = No (answer only 6.6c, then skip to section 7)

6.3 If **Yes**, did you observe FAW on your farm last season?

6.4 Which crops were most affected by FAW last season? *(mention 3 starting with the most severely affected)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **a) Crop** | **b) Variety of crop most affected [** local, improved, hybrid**]** | **c) Stage of crop most affected**1 = emergence/seedling/ early stage; 2 = vegetative/ mid stage; 3 = flowering; 4 = post flowering/late stage) | **d) Plant condition before FAW attack.** In comparison to an average year, what was the condition of your plants just before the Fall Armyworm attack?1=Very good plant condition 2=Good plant condition3=Average plant condition4= Poor plant condition 5= Very poor plant condition | **e) Most common insect manifestation stage** (1 = egg, 2 = larvae, 3 = adult) |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |

6.5 How much of your cultivated area was affected with FAW last season? / In the field(s) that was/were affected, what is the proportion of plants that was affected?

1= A very minor part (<10%)

2= A minor part (10% to 40%)

3= About a half (40% to 60%)

4= A major part (60% to 90%)

5= The entire area (>90%)

6.6 What is the estimate yield reduction in affected households as a result of FAW (kg/acre)

|  |  |  |  |
| --- | --- | --- | --- |
| Crop affected | Yield per acre before FAW | Yield per acre last season (or when you first saw FAW) | Yield per acre this season |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

6.7 What methods did you use to control FAW? (skip, if already mentioned in 5.1c)

6.8 How successful were the methods used for control of FAW? (based on responses from 6.7)

6.9 From which sources did you get information on FAW – identification, control methods?

* 1. If you used pesticides to control FAW, describe the type and application methods

|  |  |
| --- | --- |
| 1. Brand name of chemical

**[we name all possible pesticides]** |  |
| 1. Cost of pesticide/unit. Indicate ‘0’ if given for free
 |  |
| 1. Dosage (ml/20 litre)
 |  |
| 1. No. of applications in a season
 |  |
| 1. Intervals of application

1= every 3 days2= every week3= every 3 weeks4 = ad hoc5=other (specify) |  |
| 1. Stage of crop when pesticide is applied

1= emergence/seedling/ early stage; 2 = vegetative/ mid stage; 3 = flowering; 4 = post flowering/late stage) |  |
| 1. Did the pesticide work
 | Yes/No |
| 1. Did you use protective gear?
 | Yes/No |
| 1. If Yes, which one [select all]

1= face mask2= overall3= helmet4= gloves5= gum boots6 = other (specify) |  |
| 1. Did the pesticides used affect you in any way?
 | Yes/No |
| 1. If yes, what were the effects of the pesticides

1= headache2= stomach ache3= dizziness4= skin itching5= bad smell 6= other (specify) |  |
| 1. Did you observe effects on other pests or animals?
 | Yes/No |
| 1. If yes, which pests/animals got affected? [name]
 |  |
| 1. What other side effects have you observed e.g. on environment, other crops/plants, food safety etc. - enumerate
 |  |
| 1. After you sprayed, how many days later did you feel it was safe to enter the field again? mention
 |  |
| 1. Would you pay for a more expensive pesticide if it works
 | Yes/No |

**SECTION 7: HOUSEHOLD INCOME, ASSETS AND FOOD SECURITY**

7.1 List household income sources and earnings for last year

|  |  |  |  |
| --- | --- | --- | --- |
| **Income source** | **Household member involved (**1=Husband 2=spouses; 3= other adults; 4= children; 5= other (specify) | **Frequency - time units** (1= daily; 2=weekly; 3= monthly; 4= seasonally; 5= quarterly) | **Earnings during the last year ()** |
| Crop trade |  |  |  |
| Livestock trade |  |  |  |
| Off-farm casual labor |  |  |  |
| Food processing |  |  |  |
| Permanent off farm employment |  |  |  |
| Petty trading |  |  |  |
| Handicrafts |  |  |  |
| Pensions |  |  |  |
| Remittances from relatives |  |  |  |
| Other(specify): |  |  |  |

7.2 How many, if any, livestock has your household currently? Fill in 0 if none

|  |  |  |
| --- | --- | --- |
|  | Livestock type | Number  |
| a | Dairy cows |  |
| b | Cattle (bulls, cows, steers, heifers, calves, oxen) |  |
| c | Pigs |  |
| d | Goats |  |
| e | Sheep |  |
| f | Poultry (chickens, turkeys, ducks etc) |  |
| g | Donkeys, camels |  |
| h | Other (specify) |  |

7.3 Household assets: Does your household own any of the following items?

|  |  |  |  |
| --- | --- | --- | --- |
| *Assets* | *Number* | *Assets* | *Number* |
| Radio |  | Tractor |  |
| Television |  | Sprayer |  |
| Car/vehicle |  | Irrigation equipment |  |
| Motor cycle |  |  |  |
| Bicycle |  |  |  |
| Refrigerator |  |  |  |
| Mobile phone |  |  |  |
| Hoe/Machete |  |  |  |

7.4 **Months of Inadequate Household Food Provisioning**

How many months in the last 12 months did you have problems satisfying your household food needs? (That is, the number of months that the household runs out of own stock of food and lacks money to purchase food)

 [ ]

* 1. **Household Hunger Scale**

a) In the past 30 days, was there ever no food at all in the household because there were not enough resources to get more?

*0= Never 1=rarely (once or twice) 2=Sometimes (3 to 10 times) 3=Often (more than 10 times)*

b) In the past 30 days, did you or any household member go to sleep hungry because there was not enough food?

*0= Never 1=rarely (once or twice) 2=Sometimes (3 to 10 times) 3=Often (more than 10 times)*

c) In the past 30 days, did you or any household member go a whole day without eating anything because there was not enough food?

*0= Never 1=rarely (once or twice) 2=Sometimes (3 to 10 times) 3=Often (more than 10 times)*

**SECTION 8: ACCESS TO CREDIT, SOCIAL CAPITAL AND SERVICES**

8.1 Do you, or any of your household members, use any of the following sources of credit or cash? **Yes/No**

[ \_ ] Formal loans (bank)

[ \_ ] Small loans through micro-credit

[ \_ ] Informal loans (from family members or friends)

[ \_ ] Credit for (agricultural) inputs through traders / buyers

8.2 Does anyone in this household belong to a farmer group or association?

[ \_ ] YES (1) [ \_ ] NO (0)

8.3 access to infrastructure and institutional support services

|  |  |
| --- | --- |
| **Distance from home to the nearest**  | **Km\*** |
| All-weather road |  |
| Farm input shop  |  |
| Market in case you want to sell your farm products |  |
| Nearest extension office |  |

8.4 Do you currently have any maize in the field?

Yes/No

***If No, terminate the interview and thank the respondent.***

If Yes, complete section 9

**SECTION 9: FALL ARMYWORM (FAW) SCOUTING**

9.1 How many plots of maize is the farmer growing and size of plot?

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a) Plot no. | b) Size (acres) | Planting date | Intercropped Yes/No | If Yes, with which plant/crop? | Applied pesticide Yes/No | If YES, which one? | When did you apply? | Hand picking (Yes/No) | Other control measures used (specify) |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

9.2 The enumerator to score the current phenological stage of the maize that you see in the field (move with maize growth chart of growth stages)

1. 0
2. 0.5
3. 1
4. 2
5. 3
6. 4
7. 5
8. 6-7
9. Harvested

9.3 Count the number of plants that present symptoms of FAW

*In order to count the number of plants affected by FAW, sample 20 consecutive plants searching for plants with FAW symptoms (selecting them randomly) from at least 5 locations in the field.* *On plants with symptoms check for FAW larva to confirm its presence*

9.4 How many plants presented FAW symptoms in each transect?

|  |  |  |  |
| --- | --- | --- | --- |
| Transect # | N of plants with symptoms  | N of plants with eggs | N of plants with larva |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |

9.5 Score the damage on the plant by ticking the boxes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Windowing effect on leaves |  | FAW larva seen with raised dots on body segments |  | Plant toppled over |  |
| Deep feeding of leaves in funnel |  | Insect seen - skin smooth to the touch |  | Hole in the side/middle of the cob without larva inside |  |
| Sawdust-like frass near funnel |  | Hole in the side/middle of the cob with larva inside |  | FAW larva seen with inverted Y shaped white marking on its head |  |

END/////