**Index-based Insurance**

**Household Survey Questionnaire**

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| **SECTION A: Identification**   1. Enumerator’s name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. Date of interview \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Starting time\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ending time\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. Respondent’s name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Age \_\_\_\_\_\_\_Sex \_\_\_\_\_\_Education\_\_\_\_\_\_ Mobile \_\_\_\_\_\_\_\_\_\_GPS\_\_\_\_\_\_ 4. District location\_\_\_\_\_\_\_\_\_\_\_\_(1) Bora (2) Adami Tullu (3) Arsi Negele *Kebele* ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** |

**SECTION B: Household information**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | Name of household  member (start from household head) | Age in  years | Sex | Marital status | Education  (Either Grades, or code 5/6) | Is [NAME] disabled or clinically ill? (1=Yes 2=No) | Estimated hours [NAME] spends on farm work per week | Does [NAME] have access to non-farm income? (1=Yes 2=No) |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**Education**: 1=no education, 2=grades (1-3) 3=grades (4-8) 4=grades (9-12) 5=diploma/certificate 6=degree or above **Sex:** 1=Male 2=Female **Marital Status**: 1=Married 2=Single 3=Divorced 4=Widowed

**SECTION C: Basic information on index-based insurance**

1. Before this interview, have you ever heard of crop insurances?\_\_\_\_\_\_\_\_\_\_(1) Yes (2) No
2. Do you know the crop insurance program implemented by Japan International Cooperation Agency (JICA) and Oromia Insurance Company (OIC) in your area?\_\_\_\_\_\_\_\_\_\_\_\_ (1) Yes (2) No
3. Who informed you about crop insurances?\_\_\_\_\_\_\_\_(1) Cooperatives/their union (2) *kebele* leaders (3) Extension workers (4) agriculture bureau staff (5) JICA/OIC project staff (6) Neighbours/relatives/friends (7) Media (8) IDK
4. Have you participated on orientation meeting (marketing campaign) about IBIs provided by JICA/OIC project staff, extension workers or experts from agriculture bureau? \_\_\_\_\_\_\_(1) Yes (2) No
5. Please tell me about your household’s participation in buying insurance for crops in 2013 and/or 2014,\_\_\_\_\_\_\_
6. Not purchased insurance in both 2013 (2005 EC) and 2014 (2006 EC) **[please go to question 10]**
7. Purchased insurance in 2013 (2005 EC) only
8. Purchased insurance in 2014 (2006 EC) only
9. Purchased insurance in both 2013 (2005 EC) and 2014 (2006 EC)
10. If you have bought IBIs before, please tell me the reason(s) why you did so, in their order of importance.

|  |  |  |
| --- | --- | --- |
| **No.** | **Item** | **Rank** |
|  | Managing income variations (income shocks) |  |
|  | Adopting index-based insurances as a technology |  |
|  | Due to learning from progressive farmers, my neighbors or relatives who purchased it |  |
|  | Due to promotion from JICA/OIC project staff, extension workers or agricultural experts |  |
|  | Since I expected high payout (Br. 500) with lower premium (Br. 100) |  |
|  | IDK | - |

1. If you have bought index-based insurance before, did you collect payouts?\_\_\_\_\_\_\_\_ (1) Yes (2) No
2. If you have collected payout, is it as you expected based on the level of risks that you faced?\_\_\_\_ (1) Yes (2) No
3. If you have not collected payout, is it as you expected based on low level of risks that you faced?\_\_(1) Yes (2) No
4. If you did not buy index-based crop insurances before, please tell me the reason(s), in order of importance.

|  |  |  |
| --- | --- | --- |
| **No.** | **Item** | **Rank** |
|  | I do not have information |  |
|  | I do not have met any seller |  |
|  | I do not have cash or credit to pay the premium |  |
|  | I do not understand the insurance product |  |
|  | I do not trust insurance sellers like OIC/JICA |  |
|  | I do not expect rainfall shortage so I do not need it |  |
|  | I fear cumbersome administrative procedures (bureaucracy) during payout |  |
|  | The rainfall station is too far away from my farm |  |
|  | The premium per policy (Birr 100) was higher than what I expected |  |
|  | The payout per policy (Birr 500) is too small |  |
|  | Those who purchased index-based insurances in 2013 but not satisfied |  |
|  | Those who purchased in 2013 did not receive any payout though lost significant yield |  |
|  | I did not buy in 2013 and I want to maintain this status quo (bias) |  |
|  | Paying small transaction costs/registration efforts (upfront hurdles) discouraged me |  |
|  | IDK | - |

1. Are you willing to buy index-based insurances for crops if it is offered next season? \_\_\_\_\_\_\_\_\_(1) Yes (2) No
2. How do you rate your general optimism to earn payout if you buy index-based insurance next season? \_\_\_\_\_\_\_ (1) Low (pessimistic) (2) Medium (normal) (3) High (optimistic)

**SECTION D: Household crop and livestock production**

1. Did you produce crops? \_\_\_\_\_\_\_\_ (1) Yes (2) No
2. If Yes, please provide me with information related to your crop production in last cropping season

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Type of crop/vegetables/fruits | Area in local unit (*qarxi*)[[1]](#footnote-1) | Quantity produced (*quinta*l) | Quantity used for | | | Sales | | Time sold (month) | High-risk high-return inputs used | | | | | |
| Consumption | Seed | Paid in kind for labor | Quantity (*quintal*) | Value (Birr) | Fertilizer | | Modern seed | | Pesticide/herbicide | |
| Amount (Kg) | Value (Br) | Amount (Kg) | Value (Br) | Amount (Litres) | Value (Br) |
| 1 | Maize |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Teff |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Groundnut |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Sorghum |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Wheat |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Barely |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | Vegetables |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Fruits |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Others |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

1. Did you produce livestock and livestock products? \_\_\_\_\_\_\_\_\_\_ (1) Yes (2) No
2. If ‘Yes’, please provide me with information related to your livestock production in table below

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Livestock information (over the last 12 months)** | | | | | | | | | | | |
| Livestock type | Current holding  (head count) | Quantity sold | Income from sales (Birr) | Livestock type | | Current holding (head count) | | Quantity sold | | Income from sales (Birr) | |
| Mule | |  | |  | |  | |
| Calves |  |  |  | Chicken | |  | |  | |  | |
| Heifers |  |  |  | Others (specify) | |  | |  | |  | |
| Oxen |  |  |  | **Main livestock products produced (over the last 7 days)** | | | | | | | |
| Cow |  |  |  | **Livestock products** | **Quantity produced** | | **Quantity consumed** | | **Quantity sold** | | **Income from sales (Br.)** |
| Camel |  |  |  | Milk (liter) |  | |  | |  | |  |
| Sheep |  |  |  | Butter (Kg) |  | |  | |  | |  |
| Goat |  |  |  | Meat (Kg) |  | |  | |  | |  |
| Donkey |  |  |  | Eggs (Number) |  | |  | |  | |  |
| Others |  |  |  | Others (specify) |  | |  | |  | |  |
|  |  |  |  |  |  | |  | |  | |  |
|  |  |  |  |  |  | |  | |  | |  |

**SECTION E: Household land ownership**

1. Do you have your own land to grow crops? \_\_\_\_\_\_\_\_ (1) Yes (2) No
2. If ‘Yes’, please provide me with the following information on the size, type and allocation of your land for different activities in the following table.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of land owned** | Cultivated land | Fallow land | Pastures | Land under trees | Homestead land | Land rented-in | Land rented-out | Land share-cropped in | Land share-cropped out | Total land owned |
| Land size (*qarxi*) |  |  |  |  |  |  |  |  |  |  |
| Irrigated land size (*qarxi*) |  |  |  |  |  |  |  |  |  |  |
| Willing to pledge (1=Yes 2=No) |  |  |  |  |  |  |  |  |  |  |

**SECTION F: Household non-farm income generation over 12 months**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sources of income** | **Off-farm income** | | | | | **Non-farm income** | | | | | |
| Labor exchange | Firewood sales | Charcoal sales | Building materials | Others | Salaried employment | Business income | Rental income | remittances | Pension payment | Others (specify) |
| **Amount (Birr)** |  |  |  |  |  |  |  |  |  |  |  |

**SECTION G: Household wealth (housing conditions)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Do you own thatch/grass house? \_\_\_\_\_(1) Yes (2) No | Do you own corrugated iron house? \_\_\_\_\_\_\_ (1) Yes (2) No | How many rooms do the  (1) Corrugated iron house has? \_\_\_  (2) thatch/grass house has? \_\_\_\_\_ | Does the house have access to electricity? \_\_\_\_\_(1) Yes (2) No | Does the house have access to piped water? \_\_\_\_\_(1) Yes (2) No | Which type of toilet facility your house has?\_\_\_\_(1) Pit latrine (2) Flash toilet (3) Dug ground (4) Open defecation |

**SECTION H: Household wealth (assets)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | Chairs/  Tables/sofa | Beds/mattress | Floor mats/curtain | Kitchen cabinet | Cart/ Wheel barrow | Mobile Telephone | Radio/Tape Recorder | Watches/clocks | Television | Ironing | Bicycle/motor/  vehicle |
| Do you own? (1=Yes 2=No) |  |  |  |  |  |  |  |  |  |  |  |
| Current estimated value (Birr) |  |  |  |  |  |  |  |  |  |  |  |
| Willing to pledge (1=Yes 2=No) |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | Yoke/mofer/hoes | Spraying machine | tractor | Plough | Harrow | Bush Knife | Sickle | Spade | Beehive | Mortar and pestle | **others** |  |  |
| Do you own? ( 1=Yes 2=no) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Current estimated value (Birr) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Willing to pledge? (1=Yes 2=No) |  |  |  |  |  |  |  |  |  |  |  |  |  |

**SECTION I: Household’s stochastic crop failure risk experience, updating rainfall beliefs (information) and effects of basis risk on crop insurance purchase decisions**

1. Did any of your crops severely suffer from lack of rainfall during the last cropping season? \_\_\_\_\_\_ (1) Yes (2) No
2. Have you often re-planted any of your plots affected by drought? \_\_\_\_\_\_(1) Yes (2) No
3. Did you selectively grow drought-tolerant crop types and varieties? \_\_\_\_\_\_\_(1) Yes (2) No
4. Do you decide when to sow your crops based on accumulated rainfall on your plots? \_\_\_\_\_\_\_(1) Yes (2) No
5. Do you know how to measure rainfall using millimeter? \_\_\_\_\_\_\_(1) Yes (2) No (3) IDK
6. Do you (stochastically) update your rainfall beliefs based on external information from weather station? (1) Yes) (2) No
7. Do you make crop choice based on your updated beliefs (information) about rainfall intensity? \_\_\_(1) Yes (2) No
8. How long would it take you (in walking hours) to reach the nearest weather station from your main farm? \_\_\_\_\_\_
9. Do you think that rainfall intensity varies between the weather station and your plot? \_\_\_\_\_\_(1) Yes (2) No (3) IDK
10. Does rainfall variation between the weather station (where rainfall is measured to trigger insurance payout) and your farm prohibit you from buying index-based insurances? \_\_\_\_\_\_\_(1) Yes (2) No (3) IDK

**SECTION J: Household saving and borrowing**

1. Can you borrow cash without difficulty in your area? \_\_\_\_ (1) Yes, (2) No
2. Do you have access to loan in kind (e.g., grain) in your area? \_\_\_\_ (1) Yes, (2) No
3. Do you have some cash saving? \_\_\_\_ (1) Yes, (2) No
4. Do you have assets saved in kind (e.g., jewellery, grain or fattened animal for sale)? \_\_\_\_ (1) Yes, (2) No
5. If you have saving or borrowing in cash or kind, please provide me with the following detail information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Saving** | | **Borrowing** | |
| **In cash** | **In kind** | **In cash** | **In kind** |
| **Purpose** (put tick mark (**√**) if applicable) | | | | |
| For consumption |  |  |  |  |
| To start business |  |  |  |  |
| To buy fertilizer |  |  |  |  |
| To buy seeds |  |  |  |  |
| To buy insurance |  |  |  |  |
| For health emergency |  |  |  |  |
| **Mode of saving/borrowing** (put tick mark (√) if applicable) | | | | |
| Banks |  |  |  |  |
| MFIs |  |  |  |  |
| Women association |  |  |  |  |
| Cooperatives |  |  |  |  |
| Neighbors/relatives/friends |  |  |  |  |
| Saving at home (locked box) |  |  | XXXXX | XXXXX |
| Borrowing from local lenders | XXXXX | XXXXX |  |  |
| **Amount of saving/borrowing in cash or estimated value of assets (jewelry, grain) saved/borrowed in kind** |  |  |  |  |

1. In the last five years, have you applied for a bank loan?\_\_\_\_\_\_\_\_(1) Yes (2) No (**please go Q10)**
2. Has your application been accepted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1) Yes (**please go Q14** ) (2) No
3. Which Bank rejected your application?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in which year\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Why your application rejected? Indicate reason (s) \_\_\_\_\_\_\_\_\_ (1) lack of collateral (2) business plan was not profitable enough (3) lending policy of the institution (4) other reason (specify)\_\_\_\_\_\_\_\_\_ (**please go Q14)**
5. Would a bank now lend to you if you apply? \_\_\_\_\_\_ (1) Yes (2) No (3) IDK
6. Why don’t you apply? Indicate reason (s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_(1) I do not need loan (2) high interest rate (3) farming does not give me enough to repay a debt (4) I prefer working with my own liquidity (5) I do not to put my collateral at risk (6) I do not want to be worried (7) I prefer informal lenders since formal lenders are so strict (8) formal lenders do not offer refinancing (9) the branch is too far away (10) lending procedures are too much with much associated much cost of loan application
7. If you were certain that a bank would approve your application, would you apply?\_\_\_(1) Yes(**please go Q14)** (2) No
8. Why not? Indicate reason (s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_(1) I do not need loan (2) high interest rate (3) farming does not give me enough to repay a debt (4) I prefer working with my own liquidity (5) I do not want to put my collateral at risk (6) I do not want to be worried (7) I prefer informal lenders since formal lenders are so strict (8) formal lenders do not offer refinancing (9) the branch is too far away (10) lending procedures are too much, involving much cost of loan application
9. How much would you now like to borrow given an interest rate of 5% per year? \_\_\_\_ Birr

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| List of loans | 8. Did you want larger loan at the same interest rate? (1) Yes (2) No>>**11** | 9. How much more? | 10. Why did you receive less? (**Use code 3)** | 11. Did you repay the loan? (1) Yes >>Q**14**  (2) No | 12. Did you default on the loan? (1) Yes (2)No >> Q**14** | 13. Why you default? (**Use**  **Code 4)** | 14. Did the contract include limited liability clause?  (1) Yes (2) No (3) IDK | 16. Do you have to pay interest on this loan?  (1) Yes  (2) No | 17. What is the interest rate? | |
| Rate (%) | Time**( Use**  **Code 5)** |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

1. What would be the purpose of the loan?\_\_\_\_\_\_\_ (1) buy inputs (2) adopt crops (3) buy agricultural inputs (4) for other agricultural investments (5) start new business (6) strengthen existing business (7) education (8) consumption (9) health (10) other (specify)\_\_\_\_\_\_\_\_
2. What would be the maximum amount a bank is willing to lend to you? \_\_\_\_\_\_\_Birr
3. Please provide me with information about loans that you received over the past 12 months in tables below

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| List of loans | 1. Size | 2. Purpose of loan  (**Use** **code 1)** | 3. Lender type **(Use Code 2)** | 4. Is collateral pledged? (1) No (2) Yes (>>Value\_\_\_\_) | 5. Mode of loan disbursement  (1) cash >>> Q8  (2) kind (3) both | 6. Birr value of loan (s) in kind | 7. Amount you pay to buy loans in kind in cash (Br.) |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |
| --- |
| **CODES:**  **Code 1**: (1) buy inputs (2) adopt improved crop varieties (3) buy agricultural inputs (4) for other agricultural investment (5) start new business (6) strengthen existing business (7) education (8) consumption (9) for health problems (10) other (specify)\_\_\_\_\_\_\_\_\_\_\_\_  **Code 2**: (1) Commercial bank (2) Development bank (3) PSNP (4) Cooperative bank (5) Associations (6) NGO (7) Input suppliers (Union) (8) Traders (9) grocery store (petty shops) (10) Friends/relatives/neighbors (11) others (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Code 3**: (1) Lack of collateral (2) project is not profitable (3) lending policy of the institution (4) high interest rate (5) I prefer working with my own liquidity (6) farming does not give me enough to repay a debt (7) I do not want to put my collateral at risk (8) I do not want to be worried (9) I prefer informal lenders since formal lenders are so strict (10) formal lenders do not offer refinancing  **Code 4**: (1) Project not profitable enough (2) Repayment could not occur in time (3) Emergency (4) Lack of liquidity (5) others  **Code 5**: (1) Daily (2) weekly (3) monthly (4) annually (5) other (specify) \_\_\_\_\_\_\_ |

**SECTION K: Household access to extension and public services**

1. Have you ever consulted extension workers during your last production season?\_\_\_\_\_\_\_\_\_\_\_(1) Yes (2) No
2. If Yes, how many times did you contact them (1) during the dry season?\_\_\_\_\_\_\_ (2) during the wet?\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How long would it take (in walking hours) to reach the (1) main market centre? \_\_\_\_\_\_ (2) main road? \_\_\_\_\_\_\_\_\_\_\_\_ (3) *woreda* office? \_\_\_\_\_\_

**SECTION L: Household consumption expenditure**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weekly food consumption** | | | **Monthly non-food consumption** | | **Annual non-food consumption** | |
| **Item** | **Amount (kg)** | **Value (Birr)** | **Item** | **Value (Birr)** | **Item** | **Value (Birr)** |
| Sorghum |  |  | Matches |  | Clothes |  |
| Maize |  |  | Candles |  | Shoes |  |
| Wheat |  |  | Gas |  | Fabrics |  |
| Barely |  |  | Kerosene |  | School fees |  |
| Teff |  |  | Charcoal |  | Books |  |
| Rice |  |  | Fuel wood |  | Exercise books |  |
| Pasta |  |  | Soup |  | Weeding ceremonies |  |
| Macaroni |  |  | Soup powder |  | Holiday ceremonial expenses |  |
| Lentils |  |  | Water fee |  | Payments for labor |  |
| Beans |  |  | Milling charges |  | Taxes |  |
| Peas |  |  | Transport expenses |  | Red cross contributions |  |
| Potato |  |  | Rents |  | Kitchen equipment |  |
| Tomato |  |  | Electric charges |  | House furniture |  |
| Cabbage |  |  | Religious contribution |  | Building materials |  |
| Oil |  |  | Others (specify) |  | Medical expenses |  |
| Sugar |  |  |  |  | Farm implements |  |
| Salt |  |  |  |  | Veterinary expenses |  |
| Coffee |  |  |  |  | Animal feed expenses |  |
| Drinks |  |  |  |  | Others (specify) |  |
| Cigarettes |  |  |  |  |  |  |
| *Khat* |  |  |  |  |  |  |

**SECTION M: Household shocks and risks (threat to assets)**

1. Which of the following are the most frequent natural disasters in your area? \_\_\_\_\_\_\_\_\_\_(1) drought (2) flood (3) water-logging (4) landslide (5) agricultural pests and epidemics (6) whirlwind (7) hill
2. Did you recently face the following shocks?\_\_\_\_\_\_\_ (1) Drought damaging crops or livestock (2) serious health problems with paramount expenditure (3) death of the bread earner (e.g., household head or draft oxen) (4) too much rain or flood threatening your household’s life or livelihood (5) diseases affecting livestock (6) pests affecting crops (7) frosts or hailstorm
3. Which of the following risks result in the highest values of damage over a decade in your area? \_\_\_\_\_\_\_\_\_\_\_

(1) Drought (2) flood (3) water-logging (4) landslide (5) agricultural pests/epidemics (6) whirlwind (7) hill

1. How do you judge your relative vulnerability to catastrophes/epidemics compared with other households in your area? \_\_\_ (1) less vulnerable than others (2) as vulnerable as others (3) more vulnerable than others
2. How do you rate your expectation to personally experience catastrophes or epidemics causing damage to your crop production next season? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1) low (2) medium (3) high
3. How important is it for you to prevent or reduce the negative consequences of catastrophes or epidemics causing damage to your crop production? \_\_\_\_\_\_ (1) not important at all (2) less important (3) very important (4) IDK
4. How do you rate your ability for self-protection from such catastrophes or epidemics? \_\_\_\_\_\_\_\_ (1) I cannot protect myself at all (2) I can protect myself well (3) I can partially protect myself (4) IDK
5. Whom do you think is responsible to mitigate or control catastrophes or epidemics? \_\_\_\_\_ (1) government (2) public (3) non-government organizations (4) private insurance companies (5) individual households (6) IDK

**SECTION N: Self-insurance and informal risk-sharing**

* 1. Which mitigation options do you undertake before shocks occur? \_\_\_\_\_\_\_ (1) Saving cash (2) Saving valuable assets in kind (3) Renting out land and labor (4) Buying agricultural insurance (5) No action
  2. Which mitigation options do you undertake after shocks? \_\_\_\_\_\_ (1) Using saved money (2) Selling cattle or saved assets (3) Renting-out land/labor (4) Seeking safety-nets (5) Support from relatives/friends/neighbours (6) No action
  3. Do informal risk-sharing networks help you to?\_\_\_\_\_\_\_\_ (1) cover expenditures for unexpected health emergencies (2) share ceremonial expenses (3) share funeral expenses (4) give compensation in kind during crop failure or herd collapse due to natural risks like drought (5) IDK
  4. Please provide me with information about your membership and participation in the following local institutions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Local institution | Are any of your family member(s) a member in those institutions? (1) Yes>>Name (2) No | Membership period in years | Contribution over the last 12 months (Birr) | Amount of financial receipts over the last 12 months (Birr) |
| *Iddir* |  |  |  |  |
| *Iqquib* |  |  |  |  |
| Cooperatives |  |  |  |  |
| Women association |  |  |  |  |
| Kebele leadership |  |  |  |  |
| Safety-net program |  |  |  |  |

* 1. Are informal risk-sharing networks efficient in risk-pooling in your area? \_\_\_\_ (1) Yes (2) No (3) IDK
  2. Has your household received any transfer of more than 100 Birr in the last one year? \_\_\_\_ (1) Yes (2) No (3) IDK
  3. Can informal risk-sharing mechanisms crowd-out formal insurance in your area?\_\_\_(1) Yes (2) No (3) IDK
  4. Do you prefer offering index-based insurances through *iddirs*? \_\_\_\_ (1) Yes (2) No (3) IDK
  5. If your answer for **N8** is Yes, why \_\_\_\_? (1) Access to information that lowers transaction costs is easy through iddirs (2) easy monitoring of losses and fair distribution of payouts through *iddirs* (3) mutual sharing of losses among cohesive iddir members is possible even when there are no payouts (4) Covariate shocks cannot erode iddirs in the presence of IBIs (5) IDK

1. If your answer for **N8** is no, why? \_\_\_\_ (1) idiosyncratic risk-sharing through iddirs may be weakened (2) substitution and competition between Iddirs and IBIs may lead to ineffective risk management system (3) IDK

**SECTION O: Formal risk-sharing (Index-based insurances)**

* 1. **Value of insurance for the household** (v*aluation at certainty equivalent)*

Assume that you want to buy IBIs for maize. If the rain is good, you expect 10 quintals which can be sold for Birr 400 each. But if there is drought, you may lose the entire yield. With a 50% probability of a drought, your average loss is Birr 2000. If OIC agrees to pay you Birr 4000 in case your harvest fails due to drought, how much do you like to pay for OIC? \_\_\_\_\_\_\_\_\_(1) Br. 1000-2500 (2) Br.2501-3500 (3) Br. 3501-4500 (4) IDK (5) other amount,\_\_\_\_\_\_.

* 1. **Household risk behaviour and demand for index-based insurances**
  2. *Ambiguity aversion*

Consider that there are two packs of pen in different bags. The first pack contains 5 blue and 5 red pens. The second pack also contains 10 red or blue pens, but in unknown proportions. Suppose that you earn Birr 100 if you draw a red pen without seeing. Which pack do you prefer to secure the red pen? \_\_\_\_ (1) Pack 1 (2) Pack 2 (3) IDK

* 1. *Eliciting risk preference:*

|  |  |  |  |
| --- | --- | --- | --- |
| **Situation** | **Choice A (Safe option)** | **Choice B (Risky option)** | **Choice A or B** |
|  | Birr 10 for sure | Birr 15 if head; Birr 5 if tail |  |
|  | Birr 10 for sure | Birr 18 if head; Birr 4 if tail |  |
|  | Birr 10 for sure | Birr 20 if head; Birr 3 if tail |  |

We will pay you some amount of money for your stay with us for this questionnaire. You may even also get higher if you participate and won a game. In this game, your chance of winning depends on a coin flip. You can choose to keep 10 Birr for sure or choose to play one of the three games, which one would you choose? (indicate your choice).

* 1. *Risk loving for losses*

Now imagine you have two choices. In the first choice (choice A) you will lose a fixed amount of money for sure. In the second choice (choice B), you will pay some amount if the coin is on the head. If it is on the tail you do not need to pay anything. Will you choose A or B in the following three situations?

|  |  |  |  |
| --- | --- | --- | --- |
| **Situation** | **A** | **B** | **Choice A or B?** |
|  | Loss Birr 200 | Birr 300 if head; Birr 0 if tail |  |
|  | Loss Birr 100 | Birr 300 if head; Birr 0 if tail |  |
|  | Loss Birr 50 | Birr 300 if head; Birr 0 if tail |  |

* 1. *Time preferences*
     1. Imagine that you have just won a prize of 10,000 Birr today. You can get 10,000 Birr now for sure. However, if you are willing to wait for one month, you can get more. Indicate your preference as follows.

|  |  |  |  |
| --- | --- | --- | --- |
| **Situation** | **A** | **B** | **Choice A or B?** |
| 1. | Birr 10,000 today | Birr 11,000 after 30 days |  |
| 2. | Birr 10,000 today | Birr 13,000 after 30 days |  |
| 3. | Birr 10,000 today | Birr 15,000 after 30 days |  |
| 4. | How much does the prize need to be in order for you to wait for one month to receive? | | |

* + 1. *Time-inconsistency or (sophisticated) hyperbolic discounting*
    2. Are you discouraged to buy crop insurances because of the arrangement that the premium needs to be paid today, but the potential benefits are experienced only in the future? \_\_\_\_ (1) Yes (2) No (3) IDK
    3. Does the original offer of index-based insurances appear unattractive for you? \_\_\_\_ (1) Yes (2) No (3) IDK
    4. Do you often roll your insurance purchase decision forward due to some (complex) indecisiveness, even when you do not have shortage of cash? \_\_\_\_ (1) Yes (2) No (3) IDK
    5. Do you became unable to control yourself to decide to buy insurance at the moment the payment needs to be made even though you decide to commit to buy insurance in the future? \_\_\_\_ (1) Yes (2) No (3) IDK
    6. *Mental accounting*

Do you mentally keep different accounts for different purposes so that you face a problem of deciding to buy new technologies (e.g., fertilizer, seed, insurance) even though you would like to make the purchase and money is available but mentally been assigned to another purpose? \_\_\_\_ (1) Yes (2) No (3) IDK

* 1. *Trust in insurance product and in institution offering insurance*
     1. Do you trust insurance as security device, a mechanism that avoids your worries of losing investment in your farm in case of an adverse shock? \_\_\_\_\_\_\_ (1) Yes (2) No (3) IDK
     2. If you buy insurance from OIC and if there are no losses that you incur, you are paying more money into the company than you actually receive. How do you see this case? \_\_\_\_\_\_\_ (1) Insurance in no payout period is as a loss since premium payment further worsens problem (2) Insurance in a gain period is a lottery (3) IDK
     3. Suppose an NGO is to start providing insurance services in Ethiopia, and your locality is selected for subsidy since it is in the Rift Valley zone, which of the following institutions do you trust most through which this subsidy should reach you? \_\_\_\_ (1) Bureau of agriculture (2) Oromia Insurance (3) Oromia Microfinance institute (4) Cooperative Union (5) Women Association
  2. *Peer influence*
     1. Did you know any of your neighbours, relatives or peers who? \_\_\_\_\_\_(1) bought index-based insurances (1=Yes 2=No) (2) \_\_\_\_collected payouts (1=Yes 2=No)
     2. Do you prefer taking insurance in group than individually? \_\_\_\_ (1) Yes (2) No (3) IDK
  3. *Financial literacy*
     1. Suppose you borrow Birr 100 at an interest rate of 3% per month. How much would you pay after 2 months? \_\_\_\_\_(1) Less than Birr 103 (2) equal to Birr 103 (3) greater than Birr 103 (4) IDK
     2. Suppose you need to borrow Birr 500, to be repaid in one month, and you have two loan choices: Loan 1 which requires a repayment of Birr 600 in one month and loan 2 which requires a repayment of Birr 500 plus 15 percent interest. Which of the two loans is attractive for you?\_\_\_\_\_\_\_(1) Loan 1 (2) loan 2 (3) IDK
     3. If you have Birr 100 in a saving account earning 1% interest per annum, and prices for goods and services rise to 2% over a one-year period, what you buy after one year is\_\_\_\_\_\_\_\_(1) more than what you buy today (2) less than what you buy today (3) The same as to what you buy today (4) IDK
     4. For a farmer, planting one crop is usually safer than planting multiple crops\_\_\_\_\_\_\_\_(1) Yes (2) No (3) IDK
  4. *Insurance literacy*
     1. When does insurance give you a payout? \_\_\_\_\_\_\_ (1) when your yields are poor (2) when rainfall is below a certain level according to rain gauge or satellite (3) when rainfall is below a certain level on your field (4) IDK
     2. Will you receive a payout every time your yields are poor?\_\_\_\_\_ (1) Yes (2) No (3) IDK
     3. An insurance payout, \_\_\_\_\_\_ (1) covers all of the losses (2) mostly covers most of the losses (3) IDK
     4. Imagine you have bought insurance against drought. If it rains less than 50 mm by the end of May, you will receive a payout of Birr 100 for every mm of deficient rainfall. Suppose it rains 120 mm, will you get an insurance payout?\_\_\_\_\_\_\_\_\_(1) Yes (2) No (3) IDK
     5. If it does not rain at all, will you get an insurance payout?\_\_\_\_\_(1) Yes (2) No (3) IDK
     6. If it does not rain at all, how much of a payout would you receive? \_\_\_\_\_\_\_\_\_(1) Br. 500 (2) Br. 1000 (3) IDK
     7. If it rains 20 mm, will you get an insurance payout?\_\_\_\_\_\_\_\_\_\_(1) Yes (2) No (3) IDK
     8. If it rains 20 mm, how much of a payout would you receive?\_\_\_\_\_\_\_\_\_\_\_(1) Birr 200 (2) Birr 500 (3) Birr 1000
  5. *Insurance product quality and contract* 
     1. How do you judge the quality of the weather index insurance provided by OIC/JICA in your area? \_\_\_ (1) the product design is so simple to understood (2) the product design is complex to understand (3) I observe low payout that makes me to distrust the contract (4) I often observe over payout (5) IDK
     2. Which of the following do you recommend?\_\_\_\_\_ (1) Maintaining the existing OIC/JIC contract (2) modifying the existing contract (3) IDK
     3. What type of insurance contract do you prefer?\_\_\_\_\_\_\_\_\_\_\_\_(1) individual contract with the insurance company (2) government office (e.g., *woreda* input supply) intermediation (3) buying through women association (4) buying through iddirs (5) IDK
  6. *Balanced reciprocity*

Do you think that index-based insurance contract renewal should be based on the principle of balanced reciprocity like in traditional risk-sharing arrangements? \_\_\_\_\_\_\_ (1) Yes (2) No (3) IDK

**SECTION P: Welfare impact indicators of index-based insurances**

|  |  |  |  |
| --- | --- | --- | --- |
| **Reversal of sub-optimal production and consumption decisions** | **Without buying insurance** (1=Yes 2=No) | **After buying insurance but without payout** (1=Yes 2=No) | **After buying insurance and collecting payout** (1=Yes 2=No) |
| * + - 1. Do you often sell your assets at distress before drought windows? |  |  |  |
| * + - 1. Do you often shift from farming to on/off-farm employment that forfeit substantial amount of your annual income due to fear of shocks? |  |  |  |
| * + - 1. Do you lower your consumption when you expect low harvest in future? |  |  |  |
| * + - 1. Do you force your children to withdraw from school for casual labour during adverse shocks like drought? |  |  |  |
| * + - 1. Do you rent your land for landlords to minimize risky return on land? |  |  |  |
| **Welfare improvement** | | | |
| 1. Do you have increased confidence to produce under changing climate? |  |  |  |
| 1. Do your investment in high-risk high-return inputs (fertilizer, modern seeds) increase over time? |  |  |  |
| 1. Are you motivated to work harder on your farm? |  |  |  |
| 1. Did your consultation with development agents (DAs) increase overtime? |  |  |  |
| 1. Did your labor allocation on farm increased overtime? |  |  |  |
| 1. Did your consumption fluctuation reduced overtime? |  |  |  |

**THANK YOU VERY MUCH FOR YOUR ATTENTION!**

Supervisor’s name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date checked: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **1 qarxi=0.25 hectares** [↑](#footnote-ref-1)