

**Agricultural biologicals: Identifying hurdles of use and a Knowledge, Attitude and Practice (KAP) analysis of stakeholders in sub-Saharan Africa**

**Farmers Questionnaire**

**Respondents consent form**

**Title of research:** Agricultural biologicals: Knowledge, Practices, and Attitudes in sub-Saharan Africa

I confirm that the researcher/interviewer has explained to me about the research and all items of this consent form. Also and based on the explanation done by the researcher/interviewer, I know that participation in this research is voluntary and that I am not obliged to respond to all the questions in this research. I can also drop from this research any time I consider appropriate. I am informed on the use, benefits, and loses/disadvantages (if any) of this research including my readiness to set aside between 30 and 60 minutes for the interview.

As an interviewee, I confirm the following;

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| I permit recoding of this interview/conversation                  | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| I permit taking steal pictures (photographing)                    | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| I permit taking steal pictures of the surrounding environment     | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| My name can be used for purpose of this interview                 | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| I allow quoting part of the conversation as found appropriate     | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| I am ready for extended interviews that can be arranged next time | <input type="checkbox"/> YES | <input type="checkbox"/> NO |

I understand that there are no direct benefits from this research. It may however increase the understanding on biologicals among smallholders farming in SSA. This conversation is for the purpose of research and the researcher/interviewer promise to observe the principle of confidentiality and project interviewee's information.

Interviewer Name: \_\_\_\_\_  
Interview Date: \_\_\_\_\_  
Mode of interview : face-to-face

## 1. General information

- 1.1. City \_\_\_\_\_
- 1.2. Age \_\_\_\_\_
- 1.3. Gender \_\_\_\_\_
- 1.4. Education level  
 No schooling     Primary education     Secondary education  
 College training (Certificate, diploma)     Bachelor degree and above
- 1.5. Livelihood     Farmer (self-employed)     Employed  
Others, specify \_\_\_\_\_
- 1.6. Marital status \_\_\_\_\_
- 1.7. Household size : \_\_\_\_\_ Females \_\_\_\_\_ Males \_\_\_\_\_
- 1.8. Head of household     Man     Woman
- 1.9. Household annual income in Birr : \_\_\_\_\_

## 2. Agriculture and farming practice

- 2.1. How long have you been farming (in years)? \_\_\_\_\_
- 2.2. What is your main crop based on the season?  
Main rainy season: \_\_\_\_\_  
Off season/irrigation: \_\_\_\_\_
- 2.3. What are your roles in agriculture?  
 Farming     Processing     Input supply     Exportation
- 2.4. Specify the size of the farm/plot and source of land  
 Own : \_\_\_\_\_     Hire : \_\_\_\_\_
- 2.5. Which source of labour did you use last season? (Multiple responses are possible)  
 Family labour     Paid labour     Relative labour     Friends labour
- 2.6. What was your average harvest volume for the main crop last season? \_\_\_\_\_ bags/  
quintals/tones
- 2.7. Do you sell your produce?     Yes     No
- 2.8. If yes, where do you sell your produce?     Local Market     Export market
- 2.9. If you sell in the export market  
To which countries do you export? \_\_\_\_\_, \_\_\_\_\_  
When did you start exporting? \_\_\_\_\_
- 2.10. Are you an organic farmer?     YES     NO     I do not know

## 3. Agricultural inputs utilization

- 3.1. Do you use agricultural inputs in crop farming?     YES     NO
- 3.2. If no, why not? \_\_\_\_\_
- 3.3. Which agricultural inputs do you use in farming? [multiple responses are possible]  
 Fertilizers     Quality seeds     Fungicides     Insecticides     Nematacides  
Other (specify) \_\_\_\_\_
- 3.4. Who advised you to use pesticides?  
 it was my decision     Neighbor's advise     Extension officers advise     Dealers

- 3.5. Who advised you to use fertilizer?  
 it was my decision  Neighbor's advise  Extension officers advise  Dealers
- 3.6. For what purpose do you use pesticides?  
 To reduce crop loss  To fulfill market demand  others are using  
 Other, specify: \_\_\_\_\_
- 3.7. For what purpose do you use fertilizer?  
 To improve production  To fulfill gov't order  others are using  
 Other, specify: \_\_\_\_\_
- 3.8. Do you always know which type of pesticide to buy?  Yes  No
- 3.9. How do you select pesticides? (multiple responses are possible)  
 I ask a neighbor  I ask a dealer  I ask an extension officer  
 I just ask for a pesticide I know  I take any pesticide I find
- 3.10. Do you know the contents of the pesticides or fertilizers?  Yes  No  
 If yes, specify: \_\_\_\_\_
- 3.11. Have you ever had any training on pesticide sourcing and utilization?  Yes  No
- 3.12. If yes, how was it useful? \_\_\_\_\_
- 3.13. Have you ever been advised to use a specific pesticide by someone before?  Yes  
 No
- 3.14. If yes, what was the reason? \_\_\_\_\_
- 3.15. Have you ever been advised **not** to use a specific pesticide by anyone before?   
 Yes  No
- 3.16. If yes, what was the reason? \_\_\_\_\_
- 3.17. In your opinion, do you think pesticides have a negative impact on:

	Yes	No	I do not know
Human health?			
Animal health?			
Environment?			
Crop production?			

- 3.18. Have you ever stopped using pesticides because of their negative impacts?  
 Yes  No  Sometimes
- 3.19. What do you do to minimize the potential impact of pesticides on humans, animals, and the environment?  
 I use personal protective equipment  I buy safer pesticides  
 I do nothing  I seek advice from extension officers  
 I do not know how to minimize the impact

#### 4. Safer alternatives/Biologicals

4.1. Do you know that there are safer alternatives to chemical pesticides?

Yes  No If no go to No 4.7.

4.2. If yes, how did you hear about their presence?

Dealers Neighbor/colleague Extension officers Newspapers,  
Magazines Social media TV/radio Through training sessions

4.3. Have you ever bought a pesticide that is claimed to be safer for your health, your animals' health and / or the environment?  Yes  No

4.4. If yes, please name the pesticide/s you bought?

4.5. If yes, Who often applies them in your family the field? \_\_\_\_\_

	Man	Woman	Woman and man	Children	All members
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.6. If you have never bought safer pesticides, why not?

They are not available in the market  They are expensive  
 It is difficult to store/manage them

4.7. According to your understanding, what are biologicals?

4.8. Do you use biologicals?  Yes  No

4.9. If no, why not?

Availability Cost(expensive) Access (difficult to get them)  
Low benefits (low yield) Not aware of their existence

4.10. If yes, where do you buy them

Within the village Nearby village At district center At regional center

4.11. Which kind of biologicals did you use in the last seasons? State the names or show the cover or picture of box.

4.12. When did you start using biologicals? \_\_\_\_\_

4.13. Did you use biologicals in the last 2 farming seasons?  Yes  No

4.14. Who often buys biologicals or safer alternatives?

Husband  Wife  Children  Non-family member

4.15. How often do you use biologicals?

Every season Some seasons Seldom (e.g. once in life)

4.16. If you seldom or rarely use biologicals, what could be the possible reason?

Expensive Access Low efficacy I am not sure how to use it

4.17. How many times do you use biologicals in a given season? (add rows and specific names)

Once    Twice    More than twice

4.18. Which challenges do you face in using biologicals (rank them starting with the most critical challenges, which takes a value 1)

	Challenge	Rank
A	Lack of knowledge in using biologicals	
B	Preservation/storage challenge	
C	Lack of support (after sale) services	
D	Absence of supplementary inputs (ingredients)	

4.19. Do you remember any time biologicals were not effective?     Yes     No

4.20. Please, name the biologicals that were not effective: \_\_\_\_\_,

\_\_\_\_\_

4.21. In case you have to choose between two types of inputs, which do you often take?

Conventional synthetic inputs	Biologicals	Any of them (conventional or biologicals)	Neither of the two (I have alternative inputs)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.22. If anyone tells you about the safer alternatives would you consider utilizing them?

Yes    No    I am not sure

4.23. Have you ever participated in training on biologicals?     Yes     No

4.24. Did your spouse participate in trainings on biologicals?

Yes    No    I do not know    Not applicable

## 5. Attitude

This is how I view biologicals and conventional inputs in farming (select what best correspond with your view/perception, single response is expected for each statement)

		Strongly disagree	Disagree	Undecided (not sure)	Agree	Strongly agree
		1	2	3	4	5
A	It is advantageous to use biologicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Biologicals can produce healthy food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Biologicals increase yield of crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Biologicals can increase income for farmers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E	Information on biologicals and how to use them is easily available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	Biologicals are risk free	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Strongly disagree	Disagree	Undecided (not sure)	Agree	Strongly agree
		1	2	3	4	5
G	All biologicals are safe for environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H	Preferences in the food market influence the use of biologicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	There are no conditions or rules in using biologicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J	Biologicals are easier to use than conventional inputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K	Biologicals are more accessible (I spend less time, distance to get them)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L	Biologicals are cheaper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M	The community supports the use of biologicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N	The government supports the use of biologicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O	I will recommend biologicals as a safer alternative to neighbours/others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Thank you for your time**