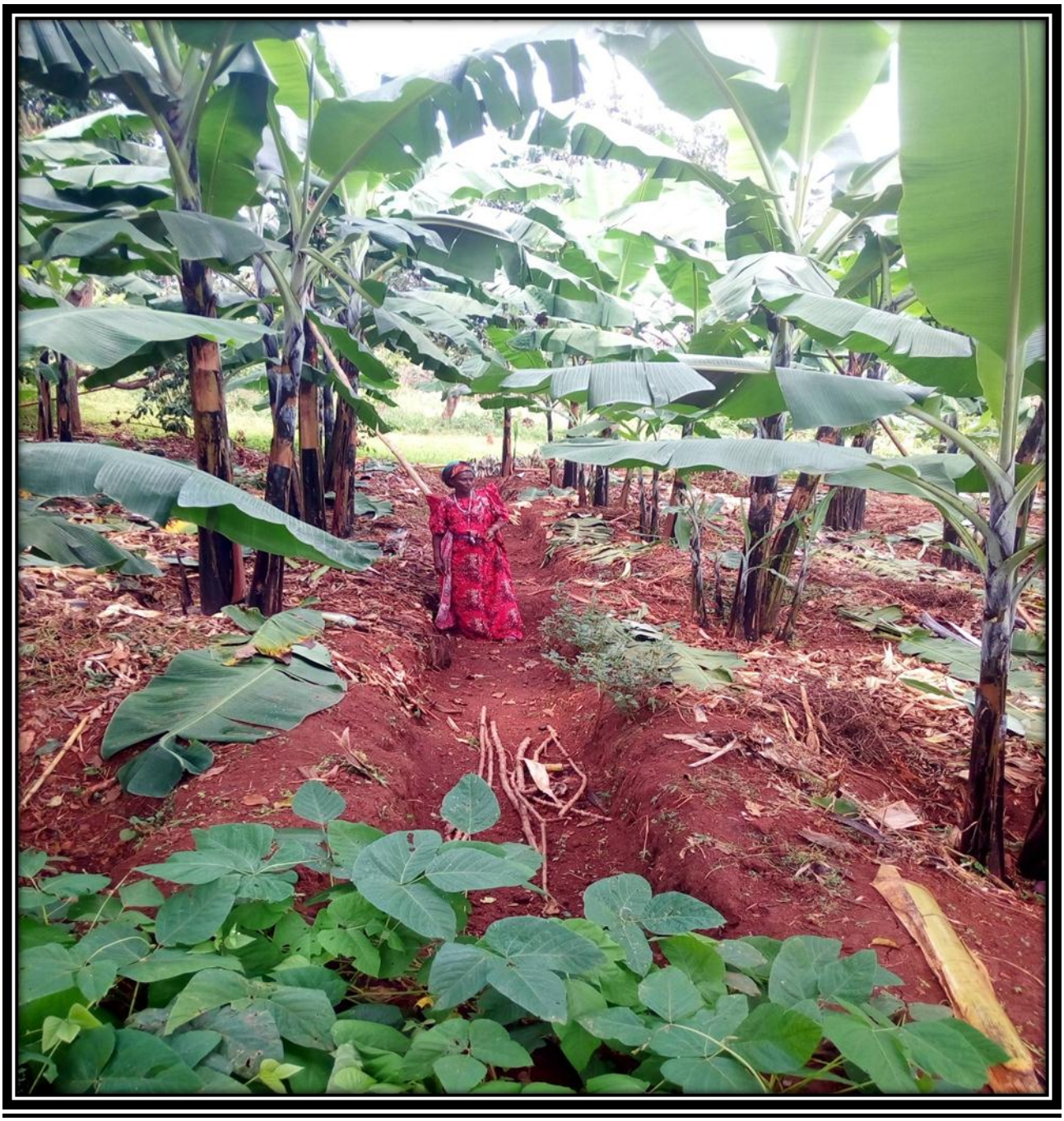
A REPORT ON UTILISATION OF SUSTAINABLE AGRICULTURAL PRACTICES IN FIVE DISTRICTS OF CENTRAL UGANDA



ACKNOWLEDGEMENTS:

This report would not be compiled without farmers who spared time for the study team on visiting their farms.

Appreciation also to CAPCA staff both at Liaison Office and agencies for the mobilization of respondents, field data collection, analysis and presentation of findings.

The UGOPAP partner staff, Liaison Officer and the PMC Coordinator for their input during the development of the data collection tool.

Finally the CAPCA Directors for creating a supportive environment that enabled movements of the field team in the respective areas of the study.

Thank you all and may God reward you abundantly.

ACRONYMS:

CAPCA - Central Archdiocesan Province Caritas Association

CBT - Community Based Trainer

CIDI - Community Integrated Development Initiative

CK - Caritas Kampala

CKL - Caritas Kasana Luweero

CKM - Caritas Kiyinda Mityana

CL - Caritas Lugazi

EADEN - Eastern Archdiocesan Development Network

FG - Farmers' Group

FGD - Focus Group Discussion

MADDO - Masaka Diocesan Development Organization

MUMPIFA - Mutubagumu Mpigi Farmers' Association

PMC - Programme Management Committee

SAPS - Sustainable Agriculture Practices

T/C - Town Council

TWDA - Tusuubira Women Development Agency

UGOPAP - Uganda Governance and Poverty Alleviation Programme

Introduction:

This report presents findings and recommendations about the status on usage of Sustainable Agriculture Practices (SAPs) among farmers' households within CAPCA's area of operation under UGOPAP.

CAPCA comprises 6 partner organizations (called agencies); namely Caritas Kampala, Caritas MADDO, Caritas Kasana Luweero, Caritas Kiyinda Mityana, Caritas Lugazi and Tusuubira Women Development Agency. The organization operates on a consortium basis.

Currently CAPCA implements UGOPAP activities in 24 sub counties within 8 districts of Central Uganda namely; Kapeeka and Semuto sub-counties in Nakaseke district, Butuntumula, Katikamu and Kikyusa sub-counties in Luweero district, Kitanda, Butenga and Bigasa sub-counties in Bukomansimbi district, Mpigi T/C, Buwama, Kammengo and Kituntu sub-counties in Mpigi district, Kalamba and Bulo sub-counties in Butambala district, Kiganda, Kassanda and Myanzi sub-counties in Mubende district, Namayumba, Wakiso T/C and Kakiri sub-counties in Wakiso district and Ntunda, Kimenyedde, Nagojje and Kyampisi sub-counties in Mukono district.

Background:

In phase I of UGOPAP, CAPCA implemented sustainable agricultural practices (SAPs) to farmers' households, including; use of water trenches, compost manure, agroforestry, animal manure, Integrated Pest Management (IPM), row planting, inter-cropping, mulching, sunken basket compost, kitchen gardens, liquid manures, pruning, thinning, grass bands, tree planting and buffer cropping, among other practices.

On 23rd & 24th March 2017, the Uganda Governance and Poverty Alleviation Program (UGOPAP) under the theme; "*Drawing lessons from the UGOPAP interventions and strategizing for the future"* held its 4th Annual review meeting. One of the presentations in the meeting was a study on the current usage of SAPs among CAPCA supported farmers in Bukomansimbi district. The study covered 20 farmers' households (under Kulwanyisa Bwavu Farmers' Group) that had benefitted from CAPCA interventions. None of the 20 households interviewed was using at least 5 of the Sustainable Agricultural Practices (SAPs). Two of the respondents were not practicing even a single SAP. Some of the reasons given for abandoning the SAPs included; laziness, lack of labor, lack of group spirit, old age, off-farm work, intensive labor requirement, bias towards composting, expensive mulching materials, scarcity of mulching and composting materials. However, the annual review meeting agreed that one CAPCA agency findings were not enough to conclude on status of SAPs across all the districts of UGOPAP area of implementation.

Based on above the Programme Management Committee (PMC), in a meeting held on 28th April 2017, resolved that UGOPAP partners namely; CAPCA, CIDI and EADEN should carry out studies[1] to ascertain SAPs usage in areas where UGOPAP is being implemented.

Purpose:

To ascertain the status on usage of Sustainable Agricultural Practices (SAPs) among farmers' households within CAPCA area of operation.

Objectives of the study:

1. To find out the status of knowledge on Sustainable Agricultural Practices (SAPs) among farmers' households.

2. To find out the status on usage of Sustainable Agricultural Practices (SAPs) among farmers' households.

Methodology:

In each of the 6 agencies, one group with past record of training members in using SAPs was identified. MADDO was excluded because study of this kind had already been done. One day per agency was utilised to collect relevant information from all the selected five groups. On average 4 to 10 on farm household interviews per group were done to ascertain their knowledge, utilisation and advantages of using SAPs. Besides interviews, observation and photo taking were used.

Coverage and content of the study:

The study took place in five sub counties within five districts out of eight where CAPCA implements the UGOPAP activities. The study mainly looked at Sustainable Agricultural Practices that CAPCA had trained farmers on, namely; trenches, compost manure, agroforestry, animal manure, Integrated Pest Management (IPM), row planting, inter-cropping, mulching, sunken basket compost, kitchen gardens, liquid manures, pruning, thinning, de-suckering, grass bands, tree planting and buffer cropping, among other practices.

The others on study checklist were; fallowing, zero tillage, farmers' seed saving, crop rotation and terracing. The households visited were purposively selected on the basis of being members within the CAPCA supported groups. Specifically 1 to 2 farmers' groups per sub-county were reached as seen below;

[1] Case studies is interchangeably used with mini survey.

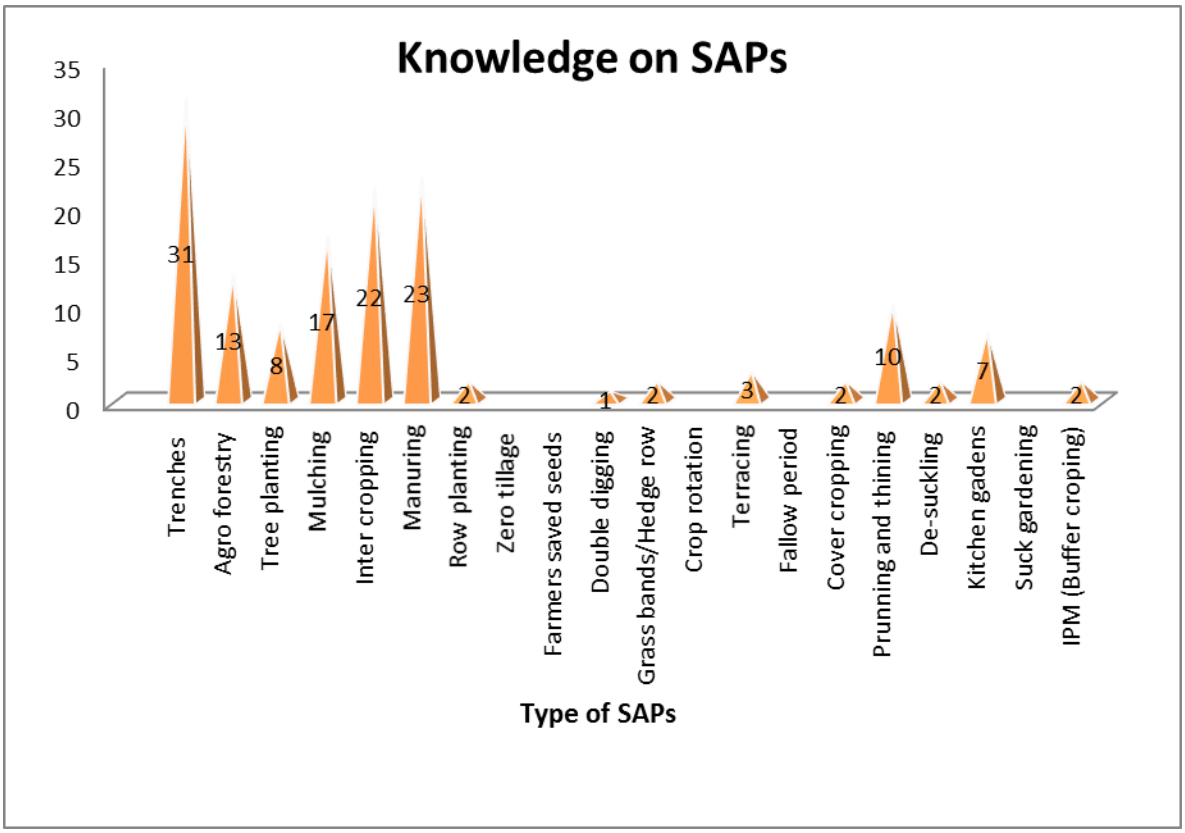
Agency	No. of hhs interviewed	Farmer Group (FG)	Association or Cooperative	District
CK	5	Kikyada FG	MUMPIFA Cooperative	Mpigi
CKM	10	Bukande FG	Kassanda Farmers' Association	Mubende
CL	6	Balikyewunya FG	Kyampisi Farmers' Association	Mukono
CKL	1	Katikamu "A" FG	Twezimbe Kasaala Cooperative	Luweero
	3	Balikyewunya FG		
TWDA	8	Kaliiti Twegatte FG	Wakiso Farmers Cooperative	Wakiso

Presentation of findings:

A total of 33 farmers' households were visited. The study sought to ascertain the respondents' knowledge of SAPs, how many SAPs were in use, advantages of using SAPs. The researcher also endeavored to find out reasons for not using SAPs from the respondents.

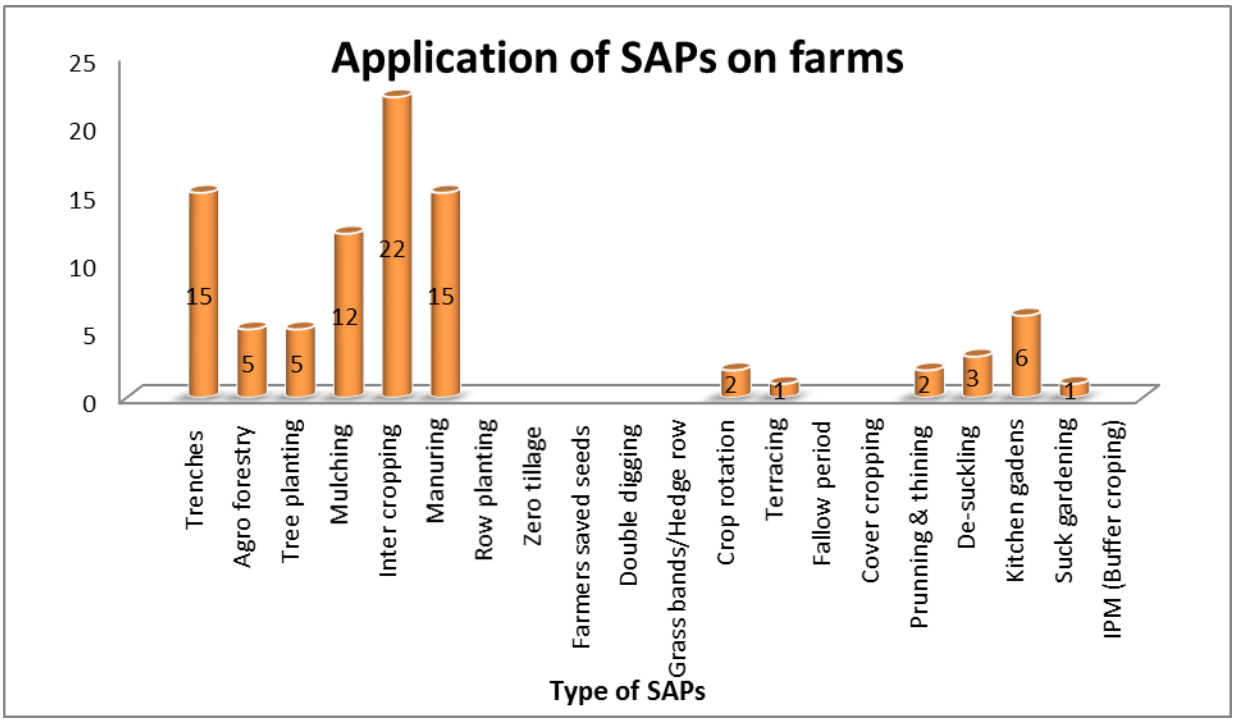
Knowledge of Sustainable Agricultural Practices (SAPs):

Regarding knowledge, majority of the respondents (31) mentioned water trenches, followed by manuring (23) and Inter cropping (22). On manure, the respondents knew compost manure, liquid manure (green/plant tea) and Farm yard manure. The least known were double dug beds (1). Yet Zero tillage, farmer seed saving, crop rotation, fallowing & suck gardens were not mentioned by respondents. Although suck gardening was not mentioned some households on observation had it on compound together with kitchen gardens. Below is the graphical presentation on knowledge of SAPs:



Utilization of Sustainable Agricultural Practices (SAPs):

In the graph below, inter cropping was the most popularly utilized SAP by 22 respondents, followed by Trenches and mulching both used by 15 respondents and Mulching by 12 respondents. Farmyard manure was the most popular manure applied. This is partly due to availability of animal and chicken droppings in some households but also its accessibility within communities at an affordable fee.



Advantages of using SAPs:

Respondents mentioned a number of advantages a farmer attains through using SAPs as seen below:

1) Enable soil conservation (reduces loss of soil nutrients).
2) Improves soil productivity. For instance one member in Mubende, Bukande FG noted that prior to application of SAPs she used to harvest 1 bag of coffee cherries, but after using mulching, thinning, pruning, she begun harvesting close to more than 2 bags with bigger coffee beans.
3) Food security is enabled even on small plots. There is even less stress due to variety of foods.
4) Mulching & trenches retains water in soil i.e. water conservation.
5) Increased production, for instance Matooke.
6) Prevents/reduces soil erosion.
7) Farmer is able to withstand harsh weather changes.
8) Banana plantations stay for long.
9) Weed management through mulching.
10) Though use of SAPs, you are able to save because of increased production for income and food security.
11) Preservation of nature. For instance use of SAPs helps in managing climate change.
12) Maintaining & retaining soil fertility.
13) Increases income, for instance through sale of quality matooke. Besides, lead to income diversification. Instead of buying vegetables, you eat fresh foods and sell surplus vegetable to market.

Photo 1**: banana plantation without mulching.**

Photo 2: **Grass band / hedge row along Sukuma week garden.**

Photo **3: A mulched garden though bananas need de-suckling**

SAPs formally used but no longer in use & corresponding reasons:

No	SAPs formally used but no longer used	Reason for stopping its use
1	Liquid manure (Green/plant tea)	• Requires a lot of time to make plant tea. • Scarcity of labour since Children grew and left yet grand children are still young
2	Digging trenches	• Scarcity of labour, children having grown and left home. • Needs a lot of energy yet can't afford hired labour as it's expensive. • Incapacitation due to aging. • Was diagnosed with high blood pressure and cautioned not to overwork • Sickness and energy reduced. • Land grabbing inhibited the practice. • Laxity in digging the terraces.
3	Mulching	• Termites used to eat the mulching materials. Mulching is hard due to increased cultivation (Less availability of mulch materials) • Scarcity of mulching materials • mulching materials are expensive • Sickness and energy reduced. • Requires grass cover which has reduced due to animal feed, over spraying and scarcity of cover. • Scarcity of composting and mulching materials.
4	Tree planting	• Lack of tree seedlings including fruit seedlings)
5	Agro-forestry	• Land was taken by landlord and left with about

		0.12 acres
6	Crop rotation	• Takes a lot of time. • Land grabbing inhibited the practice.
7	Integrated Pest Management (IPM) – organic pest management	• Very tiresome. • Cows were sold off.
8	Composite manure	• Time consuming (requires a lot of time). • Sickness, since July 2016 she has been down due to liver illness & slipped disk. • She instead of composite uses bio-celery. • Requires a lot of labour
9	Pruning and thinning	• Pests and diseases especially of Matooke. • Children went to boarding school yet both parents are now aged.
10	Terracing	• Terracing is labor intensive.
11	Organic manure	• Takes a lot of time. • Small quantity compared to land surface. • Age, very tasking. • Requires energy and aged. • Cows to provide farm yard manure were sold off
12	De-suckling	• Reduced energy to maintain them • Limited income to hire labour. • Overwhelmed by work amidst scarce time
13	Vegetable gardening	• Lost animals that used to provide droppings.

From the above table, a number of respondents either reduced or abandoned mulching, composite manure, organic manure and trenches. These are majorly due to age, cost of labor, labor scarcity, intensive labour, and sickness of some household heads.

Conclusion:

In conclusion, there has been some decline in applying SAPs by farmer households. Farmers seem to know more than what they are practicing majorly because some practices require extra energy beyond their age now, yet the available labor is expensive to hire. On average each household applies 3 to 4 practices. The other challenge experienced by farmers is effects climate change manifested in long droughts and erratic rains.

Recommendations

1) Organize more trainings for CBT to refresh old ones and empower new ones. Secondly encourage farmers to motivate them.
2) Give more trainings to farmers on climate resilience practices/ SAPs.
3) Carry out capacity building of farmers on climate adaptation technologies, specifically water for production technologies. For example support farmers with simple irrigation methods, equipment/materials for purposes of water for production and domestic use.

4) Attract more youths to take on agriculture and train them in sustainable agriculture. This will help to reduce the gap of ageing farmers.

5) Organize trainings in mindset change and Gender Action Learning (GALs) for farmers. The mindset change trainings will enable farmers realize their roles/responsibilities including financial support to CBTs. Yet GALs training will enable household members (husbands & wives) work together, then members in farmer organizations working together in planning and implementing their goals collectively.

6) Conduct trainings on group solidarity as people currently work on their own (self-centered), as opposed to communal spirit. This will lead to inter personal and inter-generational sharing of ideas, knowledge & skills, especially on knowledge and increased use of SAPs.

7) Use staff support to farmers by carrying out monitoring, back stopping and provide technical advice on climate resilience practices.

8) Train farmers in integrated pest management and treatment.
9) Encourage farmers to have adequate food throughout the year, even during harsh weather conditions. This can be achieved through growing weather stress crops (like yams, etc). It also requires adequate storage of food reserves.
10) Support farmer to farmer exposure learning visits.
11) Advise farmers to exploit use of small scale mechanized farming e.g. use of hand tractors, and similar technology to cope with manual labor shortage

Limitations of the study

Inadequate budget. This study would have covered almost half of CAPCA supported households, but it could not due to limitation in funds. Hence chose a representative cohort of respondents to get a reasonably good sample.

Photo gallery:

Photo 4: A farmer explains how she maintains her kitchen garden that support her nutritious sauce.

Photo 5: An intercropped garden, mulched with trees.

Photo 6: Staff observe a woodlot of 60 Supaba trees that were planted by the farmer

In photo 7 Use of farmyard manure (Cow-dung). This increases soil fertility.

Photo 8: An unpruned coffee garden.

Photo 9: A farmer explains the importance of pruning & thinning her coffee.

Photo 10: A farmer explains the importance of using cover crops in bananas.

Annex 1:

SAPs HOUSEHOLD QUESTIONAIRE

Introduction:

Good morning/afternoon. I am ---------- from CAPCA/CIDI Soroti/EADEN, we are here to understand the status of sustainable agricultural practices (SAPs) in your area. You have been selected to take part in this exercise because we think you have experience and knowledge with the situation in your area. Your views will be kept confidential and used only for the purposes of improving coordination of the program. Are you willing to participate?

If yes continue. If no thank the respondent and terminate the interview

SECTION A. KNOWLEDGE AND PRACTICE OF THE CIDI SUPPORTED SAPS

1. Mention the different specific SAPs that you know?

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2. Which of those mentioned above are you using/applying in the field now? (*In as much as possible, it is also advisable that the interviewer makes use of his/her observation skill for validating the responses for this particular question).*
3. Mention any 4 (four) basic advantages of practicing sustainable agricultural practices that you know
4. Of those mentioned in (1) which of those SAPs have you ever used and you stopped using them?

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5. Why did you stop using them?

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6. What should CAPCA/CIDI/EADEN do to help farmers cope with the changing weather (harsh) conditions?

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