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AFRUDEC ANNUAL PERFORMANCE REPORT – 2025

SUSTAINABILITY THROUGH AGRICULTURE PROJECT

PADER DISTRICT, UGANDA



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FOREWORD

It gives me great pleasure to present the AFRUDEC Annual Performance Report for the year 2025. The report provides a comprehensive account of the farm's activities, achievements, challenges, lessons learned, and future priorities under the Sustainability through Agriculture Project.

The year under review was characterized by severe climatic challenges, particularly prolonged flooding, waterlogging, and erratic rainfall patterns, which significantly affected agricultural production and farm accessibility. Despite these difficulties, the farm remained operational and continued to contribute to food production, income generation, agricultural training, and institutional sustainability.

Notable progress was registered in crop production, climate-smart agriculture, livestock development, infrastructure improvement, and capacity building. The establishment of perennial crop enterprises, expansion of livestock production, and strengthening of partnerships provide a strong foundation for future growth and sustainability.

On behalf of the Board of Governors and the Farm Management, I extend sincere appreciation to Hope for Uganda benefactors, all partners, supporters, and stakeholders whose contributions enabled the successful implementation of farm activities during the year.

It is our hope that the lessons learned and priorities identified in this report will guide future investments aimed at strengthening resilience, improving productivity, and advancing sustainable agricultural development.


Msgr. Matthew Oduong

Director/Chairperson, Board of Governors

ACKNOWLEDGEMENT

The Farm Management wishes to express sincere gratitude to Hope for Uganda (HFU), the Board of Governors (BoG), Parent Teachers Association (PTA), school administration, farm workers, students, development partners, and all stakeholders for their continued support during the implementation of farm activities in 2025. Special appreciation goes to Pader District Local Government (PDLG), National Agricultural Research Organization (NARO), National Coffee Resources Research Institute (NaCORI), World Coffee Research (WCR), and Prof. Kalule Okello David (PhD) for their technical support, collaboration, and contribution towards strengthening agricultural production and innovation on the farm. Despite the numerous challenges experienced during the year, particularly severe flooding and waterlogging, the collective efforts of all stakeholders enabled the farm to sustain operations and continue serving as a centre for agricultural learning, research, innovation, and demonstration. We remain grateful to all individuals and institutions whose support contributed to the success of the project.

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LIST OF ACRONYMS

AFRUDEC – Archbishop Flynn Rural Development Education Centre

AFSS – Archbishop Flynn Secondary School

HFU – Hope for Uganda

BoG – Board of Governors

PTA – Parent Teachers Association

PDLG – Pader District Local Government

NARO – National Agricultural Research Organization

NaCORI – National Coffee Resources Research Institute

WCR – World Coffee Research

CSA – Climate-Smart Agriculture

UNMA – Uganda National Meteorological Authority

WCR - World Coffee Research

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EXECUTIVE SUMMARY

The year 2025 was characterized by severe climatic challenges, particularly prolonged flooding and waterlogging that persisted for nearly six months and significantly disrupted agricultural operations, farm accessibility, and crop production. Despite these adverse conditions, AFRUDEC Farm remained operational and demonstrated remarkable resilience, adaptability, and commitment to sustainable agricultural development. A total of 187 acres of land were prepared for cultivation, of which 77.35 acres were successfully planted under various crop enterprises, including maize, rice, groundnuts, sunflower, vegetables, cassava, banana, coffee, and pineapple. The farm harvested 28.68 metric tons of maize, 4.36 metric tons of rice, 3.65 metric tons of groundnuts, 4.10 metric tons of cassava, and additional yields from vegetables, sunflower products, and pineapple. These enterprises generated a net profit of UGX 26.76 million, while meat production contributed an additional UGX 4.84 million, resulting in a gross farm profit of UGX 31.60 million. Climate resilience was strengthened through the adoption of Climate-Smart Agriculture (CSA) practices, including off-season vegetable production, mulching, and manual irrigation. Long-term sustainability was further enhanced through the establishment of banana, coffee, and pineapple enterprises. Livestock development also progressed, with the cattle herd increasing from eight (8) to twelve (12) animals, while aquaculture remained stable with 3,000 fish under management. Construction of the piggery unit advanced steadily toward completion. In line with recommendations from the 2024 Annual Report, bean production remained on hold during the reporting period pending the outcome of a collaborative research initiative with the Pader District Local Government Production Department and Ngetta ZARDI to evaluate suitable bean varieties for the Northern Agro-Ecological Zone. The findings will inform future decisions on reviving the enterprise. The farm continued to strengthen its role as a centre for agricultural training, research, innovation, and demonstration through internship programmes and strategic partnerships with government agencies, research institutions, and development partners. Despite significant climatic challenges, AFRUDEC Farm successfully sustained operations, enhanced resilience, generated income, and laid a strong foundation for future growth and sustainability.

1.0 BACKGROUND

AFRUDEC is in its ninth year of implementing the Sustainability through Agriculture Project at AFSS. The project is designed to strengthen food and income security through the promotion of commercial agriculture while driving broader community transformation. The project seeks to position the farm as a one-stop centre for agricultural research, innovation, demonstration, and development within Pader District and Northern Uganda. Through integrated crop and livestock enterprises, practical training, and strategic partnerships, AFRUDEC continues to contribute to sustainable agricultural development, food security, skills development, and institutional self-reliance.

2.0 CONTEXTUAL ANALYSIS (LOCAL SITUATION)

In 2025, Pader District operated within a relatively stable social and security environment that enabled farming activities and community engagement to continue uninterrupted. Agriculture remained the primary source of livelihood for the majority of households and was predominantly characterized by smallholder farming systems relying on family labour, low external inputs, and limited mechanization. Despite sustained farmer participation in agricultural production, productivity remained constrained by limited access to quality inputs, inadequate extension services, unstable market prices, and low investment capacity. These conditions underscore the need for strengthened agricultural support services, improved market linkages, and continued investment in climate-resilient farming systems.

3.0 ENVIRONMENTAL CONTEXT

The year 2025 was characterized by significant climatic stress across Pader District. Rainfall patterns were highly erratic, marked by delayed onset, poor distribution, intermittent dry spells, and periods of excessive rainfall. Heavy rainfall resulted in flooding, waterlogging, and soil erosion in several areas, causing substantial losses in crop production. Declining soil fertility, limited adoption of sustainable land management practices, and low tree cover continued to undermine agricultural productivity and environmental sustainability. Despite these challenges, farmers increasingly adopted adaptive measures such as crop diversification, adjustment of planting calendars, integration of livestock enterprises, Climate-Smart Agriculture practices, and agroforestry systems.

4.0 RAINFALL PERFORMANCE ANALYSIS IN 2025

According to the seasonal rainfall outlook issued by the Uganda National Meteorological Authority (UNMA), the March–May 2025 season was projected to experience near-normal rainfall. However, the onset of rains was delayed and unevenly distributed across the district. Rainfall distribution remained inconsistent throughout the year, characterized by intermittent dry spells during critical crop establishment stages and occasional periods of intense rainfall. Although

seasonal forecasts projected near-normal to above-normal rainfall, actual rainfall performance was marked by high variability, poor distribution, and temporal inconsistencies. This significantly affected agricultural planning and productivity, reinforcing the need for localized climate adaptation strategies and improved water and soil management practices.

5.0 FARM RAINFALL ANALYSIS (JANUARY–DECEMBER 2025)

A total of 693.5 mm of rainfall was recorded on the farm during 2025, distributed over 77 rain days. The highest monthly rainfall was recorded in July (121.9 mm), followed by September (108.7 mm). During Season One (March–June), April recorded the highest rainfall (65.9 mm), while September recorded the highest rainfall during Season Two. Although rainfall was generally adequate for crop growth and development, excessive rainfall during some months resulted in severe flooding and waterlogging, which significantly affected crop production and harvesting operations. Overall, rainfall performance was favourable for agricultural production, but notable differences were observed between forecasted and actual rainfall patterns experienced on the farm.

Table 1: Summary of Rainfall Received on the Farm (January–December 2025)

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Tot	Ave
Total Rain	10.2	0	46.8	65.9	64.3	63.8	121.9	56.8	108.7	70.4	30.6	54.1	693.5	57.8
Total Rain days	2	0	6	9	8	12	10	4	9	9	4	4	77	6.4

6.0 OVERALL FARM ACTIVITIES IMPLEMENTATION

The year 2025 was characterized by severe flooding that persisted for nearly six months, significantly affecting farm accessibility and crop production. Crop production was mainly undertaken during Season One, as Season Two was severely affected by heavy rainfall that resulted in extensive waterlogging and flooding across the farm. Despite these challenges, the farm sustained operations by focusing on resilient annual and perennial crops, demonstrating adaptability under adverse climatic conditions.

7.0 OVERALL FARM ACTIVITIES IMPLEMENTATION

7.1 Primary and Secondary Tillage

7.1.1 Land Preparation

A total of 187 acres of land were prepared for cultivation under different crop enterprises. Of this acreage, 50 acres were allocated to maize (Longe 5), 10 acres to Yellow Corn (G35), 30 acres to groundnuts (NARONUT 3, 4 and 5), 30 acres to rice, 30 acres to sunflower, 10 acres to cassava, 5 acres to vegetables, 4 acres to banana, 2 acres to coffee, and 2 acres to pineapple. The objective was to diversify food production, strengthen income generation, improve food security, and enhance the long-term sustainability of the farm.



Figure 3.1: Primary and Secondary Tillage Operations

7.1.2 Crop Planting

To ensure access to quality agricultural inputs, the farm procured certified seed, planting materials, and agrochemicals while supplementing them with farm-saved seed from previous seasons. Procured inputs included maize seed (Longe 5), sunflower seed (Agwara), rice seed (Superica), banana suckers, coffee seedlings, pineapple suckers, and assorted vegetable seed. Farm-saved planting materials included Yellow Corn (G35), groundnut seed, cassava cuttings, and pineapple suckers obtained from the mother garden.

Table 2: Seeds and Planting Materials Procured for Season One

Seed/Planting Material	Variety	Unit	Quantity
Maize	Longe 5	Kg	300
Sunflower	Agwara	Kg	20
Rice	Superica	Kg	400
Banana Suckers	Matooke, Bugoya & F17	Suckers	1,800

Coffee	Robusta	Seedlings	900
Pineapple	Smooth Cayenne	Suckers	3,000
Assorted Vegetables	Assorted	Assorted	Lump Sum

A total of 77.35 acres were successfully planted under various crop enterprises during Season One.

Table 3: Acreage Planted by Crop in 2025

Crop Variety	Seed Rate/Acre	Planned Acreage	Actual Acreage Planted
Maize (Longe 5)	10 Kg	50	30
Yellow Corn (G35)	10 Kg	5	3
Groundnuts (NARONUT 5)	25 Kg	20	17
Sunflower (Agwara)	1 Kg	30	30
Rice (Superica)	25 Kg	20	10
Banana (Matooke, Bugoya & F17)	450 Suckers	4	4
Coffee (Robusta)	450 Seedlings	2	2
Pineapple (Smooth Cayenne)	1,000 Suckers	2	1
Assorted Vegetables	Assorted	2	0.35
Total		115	77.35

Approximately 72 acres of land prepared for Season Two production were not planted due to severe flooding and prolonged waterlogging that rendered large sections of the farm inaccessible.



Figure 3.2: Waterlogged and Flooded Areas of the Farm

7.2 Horticulture and Perennial Crops – Climate-Smart Agriculture (CSA) Approach

In response to recurrent flooding and climatic uncertainty, the farm adopted CSA practices aimed at enhancing resilience and sustaining agricultural production. Off-season vegetable production was established on 0.35 acres using mulching and manual irrigation through watering cans. Tomatoes occupied 0.25 acres while onions covered 0.10 acres. This intervention enabled continuous vegetable production during the dry season and demonstrated practical climate adaptation strategies. The farm also established three perennial crop enterprises comprising

banana, coffee, and pineapple. These enterprises were introduced to strengthen long-term food and income security while enhancing the farm's role as a learning and demonstration centre for farmers, students, and agripreneurs.



Figure 3.3: Off-Season Vegetable Production and Perennial Crops



Figure 3.4: Tomato Nursery and Fruit Development



Figure 3.5: Establishment of Banana, Coffee and Pineapple Enterprises

7.3 CROP ENTERPRISES

7.3.1 Maize (*Zea mays*)

Maize (Longe 5) was planted on 30 acres of land. Through timely planting, effective crop protection measures, and proper agronomic management, the crop performed well and attained physiological maturity. A total yield of 28,676 kg (28.68 metric tons) was harvested compared to 31,450 kg (31.45 metric tons) harvested from 40 acres in 2024.



Figure 3.6: Maize/Corn Production

Although total production was lower than the previous year due to reduced acreage, productivity per acre improved significantly. Average yield increased from approximately 786 kg per acre in 2024 to 956 kg per acre in 2025, indicating improved crop management and production efficiency. The G35 Yellow Corn variety was planted on 3 acres and managed to maturity. However, poor germination resulted in low plant population, likely due to improper seed storage before planting. The enterprise produced 1,000 kg compared to 2,120 kg harvested from 7 acres in 2024.

7.3.2 Groundnuts (*Arachis hypogaea* L.)

Groundnut production expanded significantly from 4.5 acres in 2024 to 17 acres in 2025. The crop was well managed throughout the season and reached physiological maturity successfully. A low incidence of Groundnut Rosette Virus Disease (GRVD) was observed and effectively controlled through routine field scouting and rouging of infected plants. A total of 3,645 kg (3.65 metric tons) was harvested compared to 3,300 kg harvested from 4.5 acres in 2024. Although acreage increased substantially, yield gains were moderated by heavy weed pressure and unfavourable seasonal conditions.



Figure 3.7: Groundnut Production

7.3.3 Rice (*Oryza sativa*)

Rice was established through broadcasting on 10 acres of land. Crop establishment was affected by inadequate rainfall immediately after planting, resulting in approximately 70 percent germination. Despite this challenge, the crop was adequately managed and reached physiological maturity. A total of 4,357 kg (4.36 metric tons) was harvested compared to 2,051 kg harvested from 5 acres in 2024. The increase in production was largely attributed to expansion in acreage, although overall performance remained constrained by poor germination during establishment.



Figure 3.8: Rice Production

7.3.4 Sunflower (*Helianthus annuus L.*)

Sunflower was planted during the second rainy season and was severely affected by prolonged flooding and waterlogging. The excessive moisture negatively affected plant growth, flowering, and grain development. A total yield of 1,100 kg was harvested compared to 6,973 kg harvested from 30 acres in 2024. The drastic decline in productivity was mainly attributed to flooding and prolonged waterlogging that subjected the crop to severe physiological stress.



Figure 3.9: Sunflower Production and Harvest

7.3.5 Cassava (*Manihot esculenta*)

Cassava (NAROCAS 1), which had been planted on 7 acres during 2024, was continuously managed throughout 2025 until maturity. However, prolonged flooding and waterlogging caused extensive tuber rot and significantly reduced harvestable yield. A total of 41 bags weighing 100 kg each (approximately 4,100 kg or 4.10 metric tons) were harvested and supplied to the school. Despite severe climatic challenges, part of the crop was successfully recovered and utilized for institutional consumption.

7.3.6 Beans (*Phaseolus vulgaris*)

Following the 2024 Annual Report recommendation to reassess bean production through targeted agronomic research, bean cultivation was temporarily suspended due to poor performance associated with adverse weather conditions. AFRUDEC is partnering with the Pader District Local Government Production Department and Ngetta ZARDI to evaluate the performance of local and improved bean varieties in the Northern Agro-Ecological Zone. The findings will guide the revival and modernization of bean production.

7.4 Crop Protection

First and second weeding operations were conducted across all crop enterprises during Season One to minimize weed competition and improve crop performance. Chemical weed control was undertaken using Metrazine in maize, Hansunil in rice, and FENNUT 3.3 EC in groundnuts. Routine field scouting was conducted throughout the growing season to monitor pest and disease incidence and facilitate timely intervention. A mild infestation of Fall Armyworm (*Spodoptera frugiperda*) was observed in maize fields. However, the infestation remained below the economic threshold level and did not require major intervention. Tomato crops experienced infestations of African bollworm and outbreaks of late blight (*Phytophthora infestans*). Timely control measures were implemented and crop recovery was satisfactory. Bird damage was observed in rice fields during the milk stage. The major bird pests included Red-billed Quelea and Weaver Birds. Casual labourers were deployed to guard the fields and minimize crop losses. Groundnut Rosette Virus Disease (GRVD) was also observed at low levels and effectively controlled through routine monitoring and removal of infected plants.



Figure 3.10: Crop Fields after First and Second Weeding

7.5 Harvest, Post-Harvest Handling and Yields

The farm recorded production from major crop enterprises including maize, rice, groundnuts, sunflower, vegetables, cassava, and pineapple. Despite significant flood-related losses, several enterprises achieved satisfactory production levels. Sunflower harvested during the year was processed into 240 litres of cooking oil and 600 kg of sunflower seed cake, demonstrating value addition and improved utilization of farm produce. The farm continued to prioritize proper harvesting, drying, storage, and utilization of produce for school consumption, seed reservation, and marketing.

Table 4: Crop Performance and Yield in 2025

Crop Enterprise	Acreage	Expected Yield (kg)	Actual Yield (kg)	Supplied to School (kg)	Consumed on Farm (kg)	External Market (kg)	Reserved for Seed (kg)
Maize (Longe 5)	30	26,700	28,676	24,516	1,500	-	1,000
Yellow Corn (G35)	3	1,800	1,000	-	-	-	100
Rice (Superica)	10	4,860	4,357	3,507	-	-	850
Groundnuts	17	7,290	3,645	-	-	2,142	1,350
Sunflower Oil (Litres)	30	3,273	240	200	40	-	-
Sunflower Seed Cake	30	8,182	600	-	600	-	-
Tomato	0.25	-	1,125	500	125	500	-
Onion	0.10	-	265	225	40	-	-
Cassava Tubers (100 kg Bags)	5	-	41 Bags	31 Bags	10 Bags	-	-
Pineapple Fruits	0.7	-	1,400	1,030	70	300	-
Pineapple Suckers	0.7	-	1,000	-	-	-	1,000

Overall, the farm recorded commendable production performance despite adverse climatic conditions, contributing significantly to food security, institutional sustainability, practical learning, and income generation.

8.0 LIVESTOCK ENTERPRISES

8.1 Cattle Rearing

With support from the PTA and the BoG, cattle rearing was introduced on the farm as part of efforts to diversify and strengthen the livestock enterprise.



Figure 4.1: Cattle on the Farm

The cattle herd increased from eight (8) animals in 2024 to twelve (12) animals by December 2025, reflecting steady growth and effective management. The herd comprises indigenous breeds including Local Zebu, Ankole, and Boran cattle. The enterprise continues to contribute to farm development through breeding, manure production, practical student learning, and future income generation.

8.2 Aquaculture (Fish Farming)

Fish farming remained stable throughout the reporting period under proper management and routine husbandry practices. The fishpond was stocked with 3,000 fingerlings comprising 2,000 tilapia and 1,000 catfish. Routine pond management activities including feeding, water quality monitoring, and health assessments were conducted to ensure optimum fish growth and productivity. The enterprise continues to support practical learning, food production, and income generation while strengthening enterprise diversification on the farm.

8.3 Piggery

Construction of the piggery unit resumed during the reporting period and progressed steadily. Completion of the facility is expected by July 2026. Upon completion, the piggery will support expansion of pig production on the farm, creating opportunities for increased income generation, manure production, practical training, and livestock diversification.

8.4 Apiculture (Beekeeping)

The apiculture enterprise showed promising progress during the year, with over twenty (20) beehives successfully colonized. However, the enterprise suffered a major setback when the apiary was destroyed by fire allegedly caused by hunters who unlawfully encroached onto the farm. The incident resulted in the loss of all hives and prevented honey production during the reporting period. In response, farm management identified and prepared a new apiary site with more favourable conditions. Plans are underway to re-establish the enterprise and restore honey production during the coming year.

9.0 INTERNSHIP AND TRAINING PROGRAMME

AFRUDEC continued to strengthen its role as a centre for practical agricultural learning and skills development. During the reporting period, the farm admitted and trained twenty-eight (28) student interns comprising seventeen (17) males and eleven (11) females from various universities and tertiary institutions. In addition, seven (7) intern students, comprising two (2) males and five (5) females, were admitted for practical training in December 2025. The interns were exposed to a wide range of agricultural enterprises and management practices, enabling them to acquire hands-on experience in crop production, livestock management, agribusiness, farm planning, and agricultural extension. The internship programme continues to play an important role in bridging the gap between classroom learning and practical application while enhancing the technical competence and employability of young agricultural professionals.

10.0 PARTNERSHIPS AND COLLABORATION

The farm maintained strategic partnerships and collaboration with several institutions and individuals, including; Pader District Local Government (PDLG), National Agricultural Research Organization (NARO), National Coffee Resources Research Institute (NaCORI), World Coffee Research (WCR), Prof. Kalule Okello David (PhD). Through these partnerships, the following achievements were realized:

1. AFRUDEC supplied significant quantities of foodstuffs to Archbishop Flynn Secondary School, contributing to the school feeding programme and reducing dependence on external suppliers.

2. The farm successfully marketed fifty-one (51) bags of in-shell groundnut seed through collaboration with Prof. Kalule Okello David (PhD). The seed was sold to the National Semi-Arid Resources Research Institute (NaSARRI), Serere, at UGX 300,000 per 45 kg bag, generating income for the farm and strengthening its reputation as a reliable producer of quality agricultural products.

These partnerships continue to support technology transfer, training, research, innovation, and enterprise development.

11.0 ACHIEVEMENTS REALIZED IN 2025

11.1 Crop Production and Enterprise Development

The following achievements were realized under crop production and enterprise development during the reporting period:

1. Successfully sustained farm operations despite prolonged flooding and waterlogging.
2. Prepared 187 acres of land and successfully cultivated 77.35 acres under different crop enterprises.
3. Achieved substantial production of maize, rice, groundnuts, cassava, vegetables, sunflower products, and pineapple despite adverse weather conditions.
4. Established banana, coffee, and pineapple enterprises to strengthen long-term food and income security.
5. Supplied significant quantities of farm produce to support the school feeding programme and institutional sustainability.
6. Added value to sunflower through processing into cooking oil and sunflower seed cake.

11.2 Climate-Smart Agriculture and Environmental Resilience

1. Introduced Climate-Smart Agriculture (CSA) practices through off-season vegetable production, mulching, and irrigation.
2. Successfully implemented climate adaptation measures that enabled continued production despite prolonged flooding and erratic rainfall.

11.3 Livestock and Aquaculture Development

1. Increased the cattle herd from eight (8) to twelve (12) animals.
2. Maintained stable aquaculture production with 3,000 fish under management.
3. Progressed construction of the piggery unit to support future livestock expansion and income generation.

11.4 Training, Research and Capacity Building

1. Provided practical agricultural training to twenty-eight (28) interns from higher institutions of learning.
2. Admitted an additional seven (7) interns for hands-on agricultural training between December 2025 and February 2026.
3. Strengthened the farm's role as a centre for agricultural training, research, innovation, and demonstration in Northern Uganda.

11.5 Partnerships and Institutional Development

1. Maintained strategic partnerships with research institutions, local government agencies, and agricultural professionals.
2. Successfully marketed fifty-one (51) bags of quality groundnut seed through collaboration with partners, generating income and strengthening the farm's reputation as a reliable producer of quality agricultural products.
3. Enhanced collaboration with stakeholders to promote technology transfer, innovation, agricultural research, and enterprise development.

12.0 KEY CHALLENGES ENCOUNTERED IN 2025

The major challenges encountered during the reporting period included:

1. Severe flooding and waterlogging that persisted for nearly six months and significantly disrupted farm operations.
2. Erratic rainfall distribution that affected crop establishment, growth, and productivity.
3. Reduced yields in some crop enterprises due to excessive moisture, poor germination, and seasonal variability.
4. Pest and disease pressure, including Fall Armyworm, Groundnut Rosette Virus Disease, late blight, and bird damage.
5. Limited farm accessibility due to flooding, which affected field operations and harvesting activities.
6. Destruction of the apiary by fire, resulting in the loss of all beehives and absence of honey production.
7. Weed pressure and management challenges in some crop enterprises.
8. Financial losses arising from second-season flooding after substantial investment in land preparation.
9. Occasional breakdown of farm machinery, affecting timely execution of field operations.
10. Inadequate harvesting, post-harvest handling, processing, and storage facilities, leading to potential losses.

13.0 RECOMMENDATIONS AND PRIORITIES FOR 2026

To strengthen resilience, improve productivity, and enhance sustainability, the following priorities are recommended for implementation in 2026:

1. Invest in drainage channels and water diversion systems to reduce flooding and improve farm accessibility.
2. Scale up Climate-Smart Agriculture practices, including irrigation, mulching, soil conservation, and adoption of climate-resilient crop varieties.
3. Upgrade and strengthen the solar-powered irrigation system to improve water availability throughout the year.
4. Enhance integrated pest and disease management through improved surveillance, timely intervention, and farmer training.
5. Accelerate the re-establishment of the apiary and strengthen site security and fire prevention measures.
6. Invest in harvesting equipment, drying facilities, storage structures, and value-addition technologies.
7. Strengthen mechanization and establish a routine maintenance programme for farm equipment.
8. Improve financial planning, budgeting, and risk management to enhance resilience against climatic shocks.
9. Promote sustainable soil fertility management through organic manure use, composting, cover cropping, and crop rotation.
10. Complete the piggery unit and expand livestock enterprises while strengthening crop-livestock integration.
11. Strengthen partnerships with research institutions, government agencies, and development partners to promote innovation and technology transfer.
12. Expand internship programmes and farmer training initiatives to enhance agricultural knowledge and skills development.
13. Continue enterprise diversification to reduce production risks and strengthen farm resilience.
14. Acquire a reliable means of transport, preferably a lorry, to facilitate efficient transportation of farm inputs and outputs.
15. Organize learning and exposure visits both within the farm and to other established farms with similar enterprises to enhance knowledge sharing and adoption of best practices.

14.0 CONCLUSION

Despite the severe flooding, prolonged waterlogging, and erratic rainfall experienced during 2025, AFRUDEC Farm successfully maintained operations and continued to contribute to food production, income generation, agricultural training, and institutional sustainability. The year

demonstrated both the vulnerability of agricultural production to climate-related shocks and the importance of investing in resilient and diversified farming systems. The adoption of Climate-Smart Agriculture practices, expansion of livestock enterprises, establishment of perennial crops, and strengthening of strategic partnerships have positioned the farm for long-term growth and sustainability. Equally important, the temporary suspension of bean production and the initiation of collaborative research to identify suitable varieties underscore AFRUDEC's commitment to evidence-based decision-making and continuous improvement. The experiences of 2025 have highlighted critical areas requiring investment, particularly flood mitigation infrastructure, irrigation, mechanization, post-harvest handling facilities, and enterprise diversification. Addressing these priorities will strengthen the farm's capacity to withstand climatic shocks while improving productivity and profitability. With the continued support of Hope for Uganda, the Board of Governors, the Parent Teachers Association, development partners, and other stakeholders, AFRUDEC Farm is well positioned to build on the lessons of 2025 and advance its vision of becoming a leading centre for sustainable agriculture, research, innovation, training, and community transformation in Northern Uganda.

ANNEX 1: FARM RAINFALL RECORD

Table A2.1: Rainfall Received on the Farm (January–December 2025)

Date	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	2.1	7.6	0.0	9.4	4.1	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0
3	0.0	0.0	0.0	0.0	16.3	0.0	13.6	0.0	4.1	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	2.3	6.3	13.3	0.0	0.0	0.0	24.2	0.0
5	0.0	0.0	0.0	0.0	7.2	11.2	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	5.0	0.5	0.0
7	0.0	0.0	1.0	26.2	8.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	7.0	16.3	0.0	0.0	0.0	0.0
9	0.0	0.0	13.3	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0
10	9.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0
11	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.3	6.4	0.0	0.0
12	0.0	0.0	7.6	3.0	0.0	0.0	0.0	16.3	4.9	0.0	0.0	0.0
13	0.0	0.0	0.0	14.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	13.1
14	0.0	0.0	0.0	0.0	0.0	5.8	15.4	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	5.0	0.0	2.6
17	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0
18	0.0	0.0	0.0	3.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	2.4
19	0.0	0.0	6.5	4.1	9.3	6.1	0.0	0.0	0.0	0.0	0.0	36
20	0.0	0.0	9.3	2.0	4.1	0.0	0.0	0.0	0.0	38.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	5.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	14.4	0.0	0.0	0.0	3.3	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0	0.0

26	0.0	0.0	0.0	0.0	0.0	6.0	32.4	0.0	5.0	0.2	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.1	0.0	0.0	0.0
28	0.0	0.0	0.0	2.1	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		9.1	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	1.4	0.0	6.8	28.0	0.0	0.0	0.0
31	0.0		0.0	0.0	4.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0
Total Rain	10.2	0	46.8	65.9	64.3	63.8	121.9	56.8	108.7	70.4	30.6	54.1
Total days	2	0	6	9	8	12	10	4	9	9	4	4

Enter rainfall for the preceding 24 hours, measured in millimetres to one decimal place, at 9.00am on the day it was measured. Rain days, for 'Total days' require a minimum of 0.1mm of rain.

ANNEX 2: CROP PERFORMANCE, FINANCIAL ANALYSIS AND ENTERPRISE PROFITABILITY

Table A2.2: Crop Performance and Financial Analysis, 2025

Annual crops/Variety	Acreage	Yields (kg)	To School (kgs)	Consumed on Farm (kg)	To External market (kg)	Reserved for seeds (kg)	Cost of production (Ugx)	Income earned (Ugx)	Profit/Loss (Ugx)
Maize Longe 5	30	28,676	24,516	1,500	-	1,000	12,944,600	29,419,200	16,474,600
Yellow corn G35	03	1,000	-	-	-	100	1,851,500	1,500,000	(351,500)
Rice (Super)	10	4,357	3,507	-	-	850	5,675,000	10,892,500	5,217,000
Groundnuts (Bags)	17	81	-	-	51	30	5,984,400	15,250,000	9,256,600
Sunflower oil (litres)	30	240	200	40	-	-	9,749,000	1,920,000	(7,829,000)
Sunflower seedcakes	30	600	-	600	-	-	-	420,000	420,000
Sub-Total							36,204,500	59,401,700	23,197,200
Horticulture (Vegetables)									
Tomato	0.25	1,125	500	125	500	-	700,000	1,120,000	425,000
Onion	0.10	265	225	40	-	-	450,000	1,325,000	875,000
Sub-Total							1,150,000	2,445,000	1,300,000
Perennial crops									
Cassava tuber (Bags)	05	41	31	10	-	-	1,750,000	2,870,000	1,120,000
Pineapple (Fruits)	0.7	1,400	1,030	70	300	-	240,000	550,000	310,000
Pineapple (Suckers)	0.7	1,000	-	-	-	1,000	160,000	1,000,000	840,000
Sub-Total							2,150,000	4,420,000	2,270,000
Grand Total							39,504,500	66,266,700	26,762,200

Table 2: Showing meat supplies 2025.

Particular	Quantity (Kg)	Amount (Ugx)	Quantity Supplied to school (Kgs)	Quantity supplied to external Market	Income Earned (Ugx)	Profit/Loss (Ugx)
Beef	2,911	34,058,700	2,911	-	37,843,000	3,784,300
Goat's meat	745	9,369,300	745	-	10,423,000	1,053,700
Total					48,266,000	4,838,000

Enterprise Summary

Category	Amount (UGX)
Total Production Cost	39,504,500
Total Income Earned	66,266,700
Net Profit from Crop Enterprises	26,762,200

Table A2.2: Meat Supply Analysis, 2025

Particular	Quantity (Kg)	Cost Value (UGX)	Quantity Supplied to School (Kg)	Income Earned (UGX)	Profit/Loss (UGX)
Beef	2,911	34,058,700	2,911	37,843,000	3,784,300
Goat Meat	745	9,369,300	745	10,423,000	1,053,700
Total	3,656	43,428,000	3,656	48,266,000	4,838,000

Overall Farm Profitability from crop and meat production, 2025

Net Profit from Crop Enterprises: UGX 26,762,200

Net Profit from Meat Supply: UGX 4,838,000

Gross Farm Profit

UGX 31,600,200

(UGX 26,762,200 + UGX 4,838,000)