

AFRICA SUSTAINABILITY PROJECT FINAL REPORT MARCH 2026.

POTATO FARMING REPORT – FIRST CYCLE (½ ACRE).

1. Harvest Yield & Quality

Expected Yield : (½ acre): 40–45 bags

Actual Yield: 30 bags

Reason for Variance:

The lower yield was primarily due to insufficient rainfall during the growing season, which affected crop development and reduced overall output.

Quality of Harvest:

The potatoes were of good, marketable quality.

Minimal post-harvest losses were experienced.

Suitable for immediate sale.

2. Identified Buyers & Sales Strategy.

A ready buyer was secured through the farmers' group network prior to harvest.

Selling Price per Bag: KES 5,000Ksh (\$38)

Total Revenue:

30 bags × 5,000 = KES 150,000 Ksh (\$1141)

Sales Strategy:

Leveraged farmer group networks for reliable market access.

Sold immediately after harvest to minimize post-harvest losses.

Established a foundation for repeat business with the same buyer in future cycles.

3. Financial Summary & Investment Context.

Initial Funding Provided: KES 175,000 (\$1400).

Original Budget for 1 Acre: KES 332,000 (\$2,593).

A significant portion of the initial capital was allocated to:

Land leasing

Land preparation

These are high upfront fixed costs required before planting.

Due to the funding gap, the project was implemented on ½ acre instead of the planned 1 acre.

Total Cost Incurred: KES 195,000.(\$1,523).

Additional Amount Used: KES 20,000 (\$ 146).

This additional amount was necessary to ensure completion of essential farming activities and maintain crop quality.

Additional Cost Factors:

Fluctuations in the prices of key farm inputs, particularly pesticides and fertilizers also contributed to the increased overall cost. This was an unforeseen challenge that impacted the budget during the production cycle.

4. Revenue & Profitability.

Total Revenue: KES 150,000 (\$1171).

Net Position:

$150,000 - 195,000 = -\text{KES } 45,000 \text{ (Loss) } (\$352).$

Interpretation:

The loss is attributed to:

Reduced yield due to weather conditions.

High fixed costs (land lease and preparation) spread over a smaller acreage.

Underfunding relative to the required budget for optimal production scale.

Unexpected increase in input costs (fertilizers and pesticides).

5. Key Insights

This cycle highlights that:

Adequate initial investment is critical for achieving expected yields and profitability

Fixed costs remain relatively high regardless of scale, making smaller acreage less cost-efficient

Scalability Insight:

To achieve meaningful and sustainable profits, it will be necessary to:

Scale production to at least 1–2 acres

Align funding with the actual original indicated cost structure (approx. KES 332,000 per acre)

6. Observations & Lessons Learned.

Rainfall variability had a significant impact on yield, highlighting the need for:

Improved season planning.

Exploration of irrigation or water management solutions.

Input price volatility (fertilizers and pesticides) should be anticipated in future budgeting.

Despite financial constraints:

A reliable buyer was secured.

The produce met market quality standards.

This cycle has provided valuable practical and market experience, which will improve future performance.

7. Future Outlook & Recommendations.

The project demonstrates strong potential given:

Established market access

Improved understanding of production and cost dynamics

Recommended Next Steps:

Scale up to 1–2 acres.

Align funding with full production requirements.

Explore irrigation solutions to reduce dependency on rainfall.

Factor in price variability for farm inputs in future budgets.

Maintain and strengthen buyer relationships.

With these adjustments, future cycles are expected to be:

More productive.

More cost-efficient.

Consistently profitable.

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