

FOOD WASTE MANAGEMENT STRATEGY



SOKOINE UNIVERSITY OF AGRICULTURE

JULY 2027 JUNE 2030

EXECUTIVE SUMMARY

The Food Waste Management Strategy (2027–2030) provides a framework for Sokoine University of Agriculture (SUA) to reduce food waste, promote responsible consumption and strengthen environmentally sound waste management practices across its campuses.

The Strategy covers the Edward Moringe Campus (EMC), Solomon Mahlangu Campus (SMC) and Mizengo Pinda Campus (MPC). It emphasises practical, low-cost approaches, appropriate technologies and the utilisation of existing University facilities, resources and institutional arrangements.

The Strategy prioritises food waste prevention and reduction, separation, reuse, recovery and appropriate disposal. These practices include composting, Black Soldier Fly production, biogas generation where feasible, and existing contracted cleaning, waste collection and disposal services.

As an agricultural university, SUA will also promote the integration of food waste management into teaching, field practicals, student research projects and University farm activities.

The Strategy aims to reduce food waste generation by 25% by June 2030, while progressively improving food waste separation, recovery and disposal practices. Implementation will be supported through existing University arrangements, with progress assessed using simple monitoring methods. The Strategy also supports alignment with international sustainability frameworks and university sustainability rankings.

Contents

EXECUTIVE SUMMARY	i
SECTION 1: BACKGROUND AND RATIONALE	1
SECTION 2: SCOPE AND STRATEGIC OBJECTIVES.....	1
2.1 Scope.....	1
2.2 Strategy Objectives	1
SECTION 3: GLOBAL POLICY FRAMEWORK ALIGNMENT	1
SECTION 4: CORE OPERATIONAL PRINCIPLES	2
Principle 1: Source Prevention & Strategic Planning	2
Principle 2: Behavioral & Environmental Interventions.....	2
Principle 3: Circular Resource Recovery	3
Principle 4: Closed-Loop Experiential Learning	3
SECTION 5: IMPLEMENTATION PHASES AND CAMPUS PATHWAYS	3
6.1 Implementation Opportunities and Challenges	Error! Bookmark not defined.
6.1.1 Implementation Opportunities	Error! Bookmark not defined.
6.1.2 Implementation Challenges	Error! Bookmark not defined.
SECTION 7: ESTIMATED BUDGET FRAMEWORK	4

SECTION 1: BACKGROUND AND RATIONALE

Sokoine University of Agriculture (SUA) recognises the importance of reducing and responsibly managing food waste generated through its teaching, research, administrative, residential and catering activities. Effective food waste management contributes to environmental protection, efficient resource utilisation and sustainable campus operations.

The University promotes practical, low-cost approaches that prioritise food waste prevention and reduction, followed by reuse, recovery and environmentally responsible disposal. Emphasis is placed on simple, locally appropriate technologies and the utilisation of existing facilities and resources.

As an agricultural university, SUA has opportunities to integrate food waste management into teaching, field practicals, student research projects and University farm activities, including composting, Black Soldier Fly production and biogas generation, where appropriate.

Food waste that cannot be reused or recovered may be managed through existing waste collection and disposal arrangements, including contracted service providers.

This Strategy provides a framework for strengthening these practices across the University's campuses while contributing to national and international sustainability objectives.

SECTION 2: SCOPE AND STRATEGIC OBJECTIVES

2.1 Scope

This Strategy covers food waste generated through University activities, including kitchens, cafeterias, offices, student residences and other relevant facilities at the Edward Moringe Campus, Solomon Mahlangu Campus and Mizengo Pinda Campus.

The University's reporting period runs from 1 July to 30 June each year, in line with the Government financial year.

2.2 Strategy Objectives

The objectives of this Strategy are to:

- (a) Reduce food waste generation through responsible food preparation, serving and consumption practices.
- (b) Promote appropriate separation, collection, reuse, recovery and safe disposal of food waste.
- (c) Encourage the use of practical, low-cost technologies, including composting, Black Soldier Fly production and biogas generation, where appropriate.
- (d) Integrate food waste management into relevant teaching, field practicals, student research projects and University farm activities.
- (e) Promote awareness and simple monitoring of food waste management practices.

SECTION 3: GLOBAL POLICY FRAMEWORK ALIGNMENT

Global Initiative	Core Intersection	Strategy	Institutional Impact
-------------------	-------------------	----------	----------------------

3.1 SDG 12: Responsible Consumption	Waste minimization at the source and circular economy loops.	Drives institutional shift toward ethical purchasing and material reuse.
3.2 SDG 13: Climate Action	Diverting organic matter away from landfills to prevent methane emissions.	Minimizes the university's scope 3 carbon footprint.
3.3 UN SDG Accord	Institutional commitment to annual public reporting on sustainability milestones.	Forces rigorous waste auditing and transparent accountability.

SECTION 4: CORE OPERATIONAL PRINCIPLES

Principle 1: Source Prevention & Strategic Planning

- (a) **Food Waste Reduction:** Encourage appropriate food preparation, meal planning, portion sizes and consumption practices to minimise food waste.
- (b) **Responsible Procurement:** Promote appropriate food purchasing, storage and stock management to reduce spoilage and unnecessary waste.
- (c) **Waste Assessment:** Encourage simple recording and periodic assessment of food waste generated in University kitchens, cafeterias and other relevant facilities.

Principle 2: Behavioral and Environmental Interventions

- (a) **Awareness:** Promote responsible food consumption and waste management practices among students, staff and food service providers.
- (b) **Waste Separation:** Encourage separation of food waste from other waste materials at the point of generation using available facilities and simple, low-cost materials such as waste bins, containers and bags.
- (c) **Student Participation:** Encourage student involvement in food waste reduction, awareness activities and practical waste management initiatives.



Principle 3: Circular Resource Recovery

- (a) **Composting:** Promote the use of suitable food waste for compost production, particularly in University farms and field practicals.
- (b) **Biological Conversion:** Encourage the utilisation of existing Black Soldier Fly activities and appropriate biogas technologies for food waste recovery, where feasible.
- (c) **Waste Collection and Disposal:** Utilise existing waste collection arrangements, including designated collection points and contracted waste removal services, for food waste that cannot be reused or recovered.

Principle 4: Closed-Loop Experiential Learning

- (a) **Field Practical:** Integrate food waste management activities into relevant teaching and practical training programmes.
- (b) **Student Research:** Encourage student research projects on food waste reduction, composting, biological conversion and other appropriate waste management practices.
- (c) **University Farms:** Promote the use of University farms and existing facilities for practical demonstrations, research and application of suitable food waste recovery methods.

SECTION 5: IMPLEMENTATION PHASES AND CAMPUS PATHWAYS

Objective 1: Implement Source Separation and Behavioural Change

- (a) **Waste Separation:** Encourage separation of food waste at kitchens, cafeterias, student residences and other relevant areas using available waste bins, containers and bags.
- (b) **Awareness:** Promote responsible food preparation, serving and consumption practices through existing student and staff communication channels.

Objective 2: Promote Food Waste Recovery and Appropriate Disposal

- (a) **Composting:** Encourage composting of suitable food waste using simple methods and available facilities, including University farms.
- (b) **Biological Conversion:** Utilise existing Black Soldier Fly activities and explore appropriate biogas applications for food waste recovery, where feasible.
- (c) **Waste Collection and Disposal:** Utilise existing cleaning and waste management arrangements, including contracted cleaning services in student hostels and other University facilities, designated waste collection points, and contracted waste collection, transportation and disposal services.

Objective 3: Transform Campus Kitchens and Farms into Field-Testing Laboratories for Students

- (a) **Field Practical:** Encourage practical student activities involving food waste separation, composting and other appropriate waste management methods.
- (b) **Student Research:** Promote student research projects on food waste reduction, recovery and environmentally sound disposal.
- (c) **Waste Assessment:** Encourage students to participate in simple food waste assessments, data collection and evaluation of waste management practices under appropriate supervision.

Implementation Phases

Phase 1: Food Waste Assessment and Awareness (July 2027–June 2028)

Promote awareness, identify major sources of food waste and encourage separation using existing facilities.

Phase 2: Practical Waste Management (July 2028–June 2029)

Strengthen food waste reduction, composting, biological conversion and appropriate disposal through existing University activities and facilities.

Phase 3: Monitoring and Improvement (July 2029–June 2030)

Review food waste management practices, document progress and encourage improvements through student practicals, research and existing institutional arrangements.

SECTION 6: PERFORMANCE METRICS, OPPORTUNITIES & CHALLENGES

6.1 Performance Indicators

The University shall monitor progress in food waste reduction and management through existing institutional arrangements, periodic assessments and relevant student practical activities.

KPI 1: Food Waste Reduction

Target: Reduce food waste generation by 25% by June 2030, relative to an established baseline.

KPI 2: Food Waste Separation

Target: Achieve separation of at least 50% of food waste generated in relevant University facilities by June 2030.

KPI 3: Food Waste Recovery

Target: Recover at least 30% of food waste generated through composting, Black Soldier Fly production, biogas generation and other appropriate methods by June 2030.

KPI 4: Waste Collection and Disposal

Promote appropriate collection and disposal of food waste through existing designated waste collection points and contracted waste removal services, while encouraging separation and recovery of suitable food waste before disposal.

KPI 5: Teaching and Research Integration

Encourage student participation in food waste management through field practicals, research projects and other relevant academic activities.

Performance shall be assessed using available records and simple measurements. Percentage targets may be reviewed following baseline assessments, taking into account campus circumstances and available resources.

6.2 Implementation Opportunities and Challenges

6.2.1 Implementation Opportunities

(a) **Circular Nutrient Loops:** Utilising suitable food waste for composting, biological conversion and other productive uses.

- (b) **Tri-Campus Geographic Synergy:** Adapting food waste management practices to the circumstances and available facilities of each campus.
- (c) **Living-Laboratory Curriculum Integration:** Using existing teaching programmes, field practicals, student research projects and University farms to support food waste management.
- (d) **Resource and Financial Optimisation:** Promoting simple, low-cost waste management methods that make efficient use of existing resources and minimise disposal costs.
- (e) **Student-Led Institutional Ownership:** Encouraging student participation in waste separation, awareness, monitoring and practical waste management activities.

6.2.2 Implementation Challenges

- (a) **Geographic and Logistical Differences:** Adapting food waste management practices to the different locations, facilities and operational circumstances of the three campuses.
- (b) **Waste Concentration:** Managing food waste generated in areas with high levels of food preparation and consumption, particularly cafeterias and student residences.
- (c) **Coordination with Service Providers:** Strengthening coordination with contracted catering, cleaning and waste management service providers within existing contractual arrangements.
- (d) **Awareness and Participation:** Encouraging consistent participation by students, staff and service providers through appropriate awareness and engagement activities.
- (e) **Resource Availability:** Implementing food waste management practices progressively, making effective use of existing facilities, resources and institutional arrangements.

SECTION 7: RESOURCE UTILISATION AND IMPLEMENTATION

Implementation of this Strategy shall primarily utilise existing University facilities, resources and institutional arrangements, with emphasis on practical, low-cost and environmentally sound food waste management practices.

Existing cleaning and waste management arrangements, including contracted cleaning services, designated waste collection points and contracted waste removal services, shall support implementation. Simple waste separation and handling practices using available bins, containers and bags shall be encouraged.

Food waste recovery shall be promoted through appropriate methods, including composting, Black Soldier Fly production and biogas generation, where feasible. Relevant teaching programmes, field practicals, student research projects and University farm activities shall be encouraged to support implementation and monitoring. Any additional resource requirements shall be considered through existing University planning and budgeting arrangements, subject to availability of resources.

SECTION 8: MISCELLANEOUS PROVISIONS

8.1 Compliance by Service Providers

Contracted cleaning, catering and waste management service providers shall comply with relevant provisions of this Strategy in carrying out their contractual responsibilities. Relevant requirements shall be incorporated into service contracts, where appropriate.

8.2 Management of Other Waste

Hazardous, chemical, laboratory and medical wastes shall be managed in accordance with applicable environmental and safety requirements, including relevant National Environment Management Council (NEMC) regulations. Existing University hospital incinerators and other authorised waste treatment and disposal facilities may be utilised for appropriate waste types.

8.3 Review of the Strategy

The Strategy may be reviewed periodically to reflect institutional needs, emerging practices and applicable regulatory requirements.