

# Enriching Organic Solid Waste with *Mucuna prurines*



By

**Priscilla Badaweh Coffie**  
**Water Supply and Environmental Sanitation**  
**Researcher**  
**[badawehcoffiepriscilla@gmail.com](mailto:badawehcoffiepriscilla@gmail.com)**

**James Kumah**  
**Biological Sciences**  
**Researcher**  
**[jameskumah11@gmail.com](mailto:jameskumah11@gmail.com)**

# Outline

❖ **Background**

❖ **Aim**

❖ **Methodology**

❖ **Results**

❖ **Outlook**



2/12/2024



# Background

• *Global Waste Generation is Expected to increase from*

**17bn**

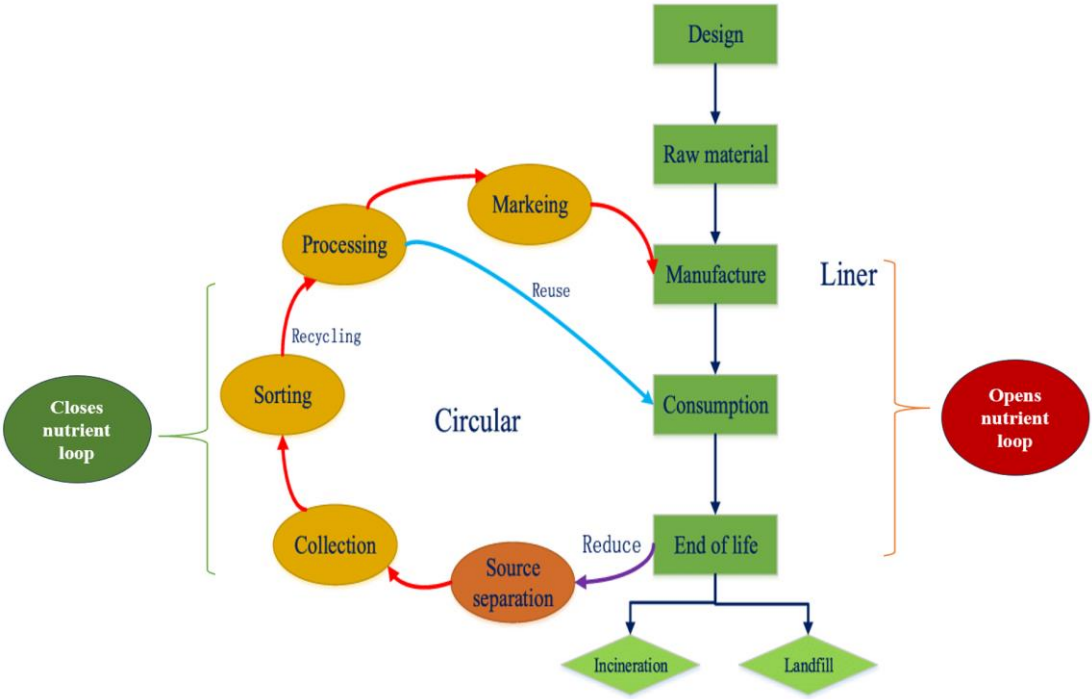
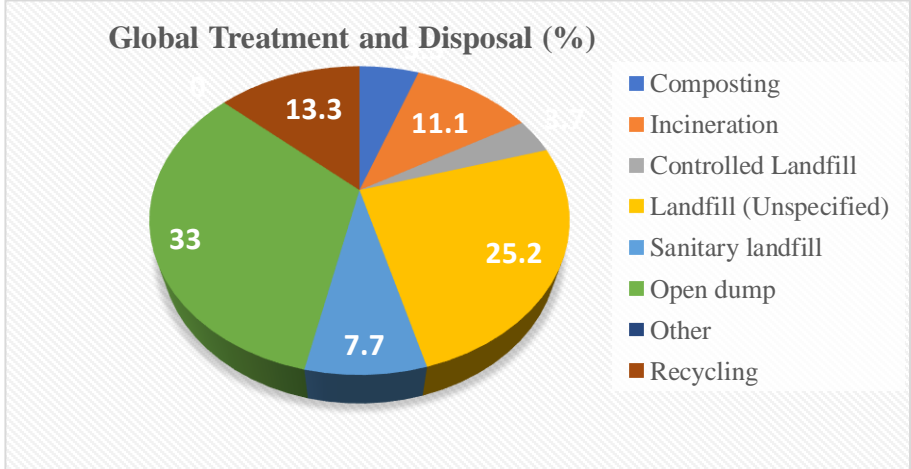
**27bn**

✓ **Annually by 2050**

✓ **For Kumasi**

**2,339 tons/day**

**11,048 tons/day**





# Aim

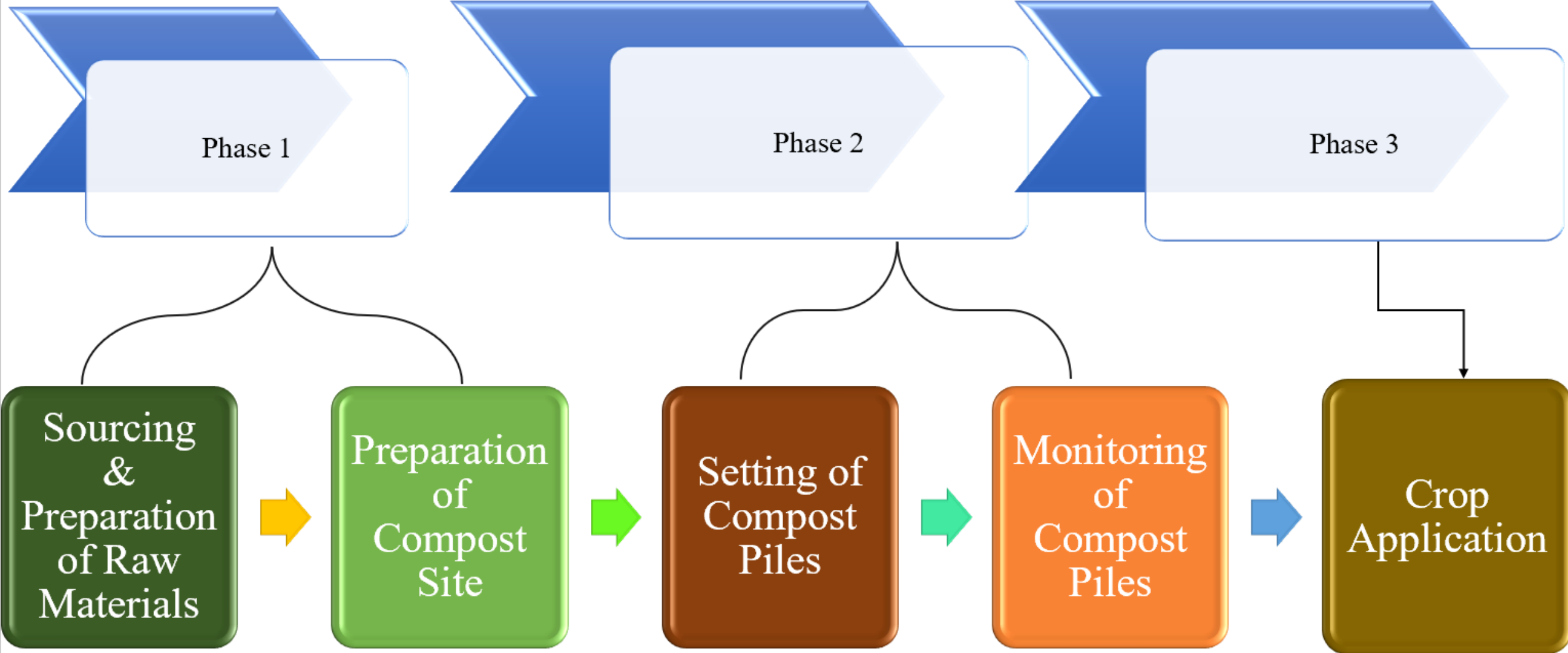


**Develop unique mixing formula to generate high grade organic fertilizer.**

**Train interested youth/students for income generation and upscale.**

**Possibility of commercialization**

# Project Methodology





# Project Activities & Results-Phase 1



Plate 1: Cultivation and harvesting of *Mucuna*



Plate 2: Preparation of fruits of *M. pruriens* before co-composting





## Project Activities & Results- Phase 2



Weighing of compost material



Moistening & turning of compost heaps

Moist fetched compost



Sweeping around compost pile

Temperature readings during the composting process

Formulated compost piles

Prepared compost



# Project Activities & Results-Phase 3



Prepared compost



Securing of site



Fencing of site



Ploughing site



Bed preparation



Bed prepared



Plumbing works at site



Planting of cucumber seeds



Selected students helping in the prepared compost application



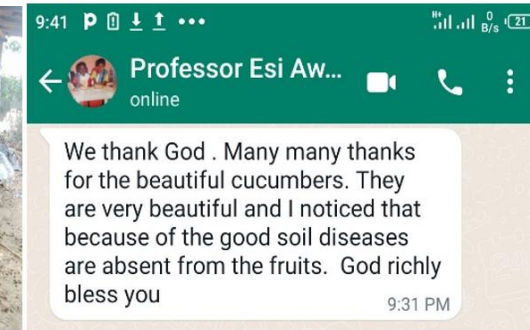
Compost application



Recording crop performance



Evidence and Testimony of the performance of the compost (k)



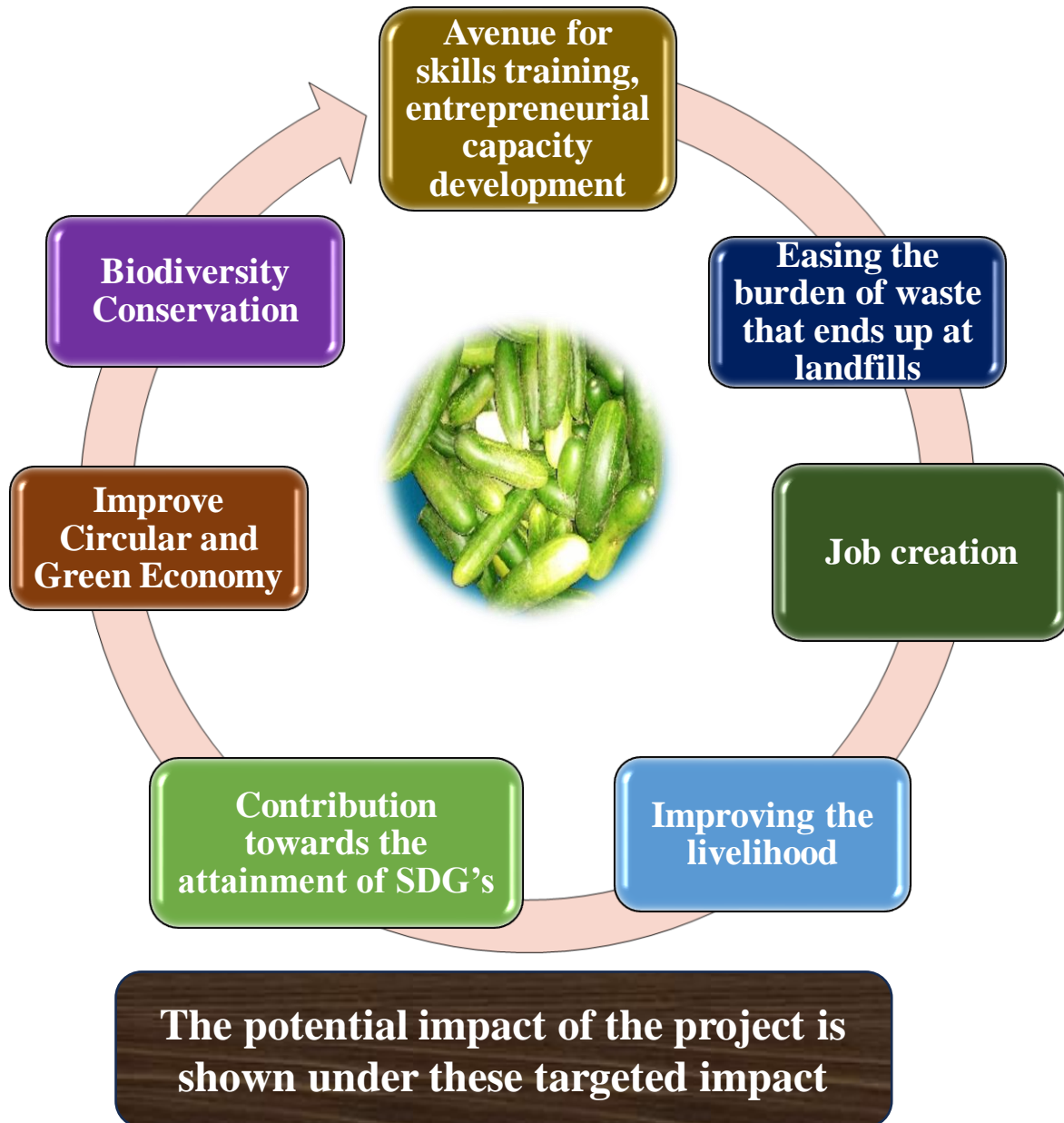


# Capacity Building





# Project Outlook



## Recommendation

It is significant to consider the usage of *mucuna pruriens* in land reclamation because of the numerous potentials it carries. Proposal on land reclamation using *mucuna* has been developed to undertake this as a new project.

Additional funds will be needed to enhanced scaling up of the project as a means of project continuation. This may include the cultivation of other crops for sales, conducting product analysis of the crops and organizing training programmes for interested students and farmers on compost production etc

Possibility of commercialization





Thank

You