TECHNOLOGY FACTSHEET

WASTE COMPOSITING[1]

Introduction

Compositing is the decomposition of biodegradable organic matter to produce compost. Waste water decomposition is facilitated by aerobic bacteria under controlled environment. Compositing can be divided into home compositing and industrial compositing. Essentially, the same biological processes are involved in both scales of compositing. Different materials are suitable for decomposition, but carbon and nitrogen containing materials are normally preferred. These include green plant material, dry straw, leaves, paper and wood chips.

Technology Characteristics

Generally there are two major approaches to compositing. Active and passive. **Active (hot)** compositing is compositing close to ideal conditions allowing aerobic bacteria to thrive. To achieve good results the composite material must be kept warm, insulated and moist.

Passive composition is compositing in which the level of physical intervention is kept to a minimum. Most industrial compositing operations use active compositing techniques while home compositing operations use passive techniques.

Waste compositing involves, waste collection, segregation/sorting, piling and sprinkling with water.

Country Specific Applicability and Potential

In Kenya, waste compositing can be undertaken at both commercial and home levels as compostable material is found in large quantities in both rural and urban setting.

In urban areas about 60% of municipal waste is of organic origin while in rural setting most of the agricultural waste is available for compositing. With the current clammer for organic farming in the country, waste compositing has a wide application nationally.

[1] **This fact sheet has been extracted from TNA Report – Mitigation for Kenya. You can access the complete report from the TNA project website** http://tech-action.org/

Status of technology in country

Waste compositing has been practised in Kenya for a long time.

Benefits to economic/social and environmental development

Waste decomposing in Kenya could result in great social economic and environmental benefits. In rural setting waste collection, segregation and transport could go a long way in poverty reduction as these activities are labour intensive. Waste collection itself results in cleaner environment. In addition, the composite manure so produced is a cheaper alternative to imported chemicals fertilisers that consume large sums of the country's scarce foreign exchange.

Climate change mitigation benefits

Waste compositing replace natural decomposition which takes place under anaerobic conditions that would result in emissions of methane gas. The carbon dioxide that is emitted during the de-compositing process is of lower global warming potential than methane and therefore contributor to climate change mitigation

Financial requirements and costs

The capital requirement for waste compositing depends on the scale of operations. At home compositing, the operation can be undertaken through household labour thereby minimising costs. Commercial compositing can be undertaken at small scale or medium scale. In most operators using basic equipment that do not require large capital outlay.