



THE URBAN GREEN BLUEPRINT

A Playbook for Decentralised, Community-Led
Food Waste Composting in Residential Complexes.



Reduce. Restore. Rejuvenate.





THE REJUVRTH MISSION

A step towards sustainable waste management in Singapore by bridging city living and ecology.

THE TANJONG RHU REPLICATION GUIDE

This playbook serves as a guide for communities interested in replicating the Tanjong Rhu Community Composting Project, an NEA-funded initiative focused on source segregation of food waste using the Bokashi method. It outlines the project's key components, best practices, and lessons learned, offering a roadmap for successful implementation.

Tangible Ecological Impact

7,500
KG



Of Organic Waste diverted from landfills through this initiative.

1,000
KG



Of Rich Compost generated to support urban greenery.

250

ACTIVE PARTICIPANTS



Local residents and volunteers empowered with tools to manage waste effectively



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DECENTRALISED COMPOSTING OVERVIEW



PROJECT FOUNDATIONS



1. **Introduction to the Tanjong Rhu Community Composting Project**

An overview of the local initiative dedicated to transforming urban waste.

2. **Purpose of this Playbook**

Defining the goals and tools provided to empower residents in waste management.

IMPLEMENTATION ROADMAP



3. **Initiating a Community Composting Project in Your Neighbourhood**

Essential first steps for launching a green initiative within a local community.

4. **Project Planning and Setup**

Detailed logistics required to ensure the project delivers tangible ecological impact.



TANJONG RHU COMMUNITY COMPOSTING PROJECT: A GREENER FUTURE

CONTEXT SUMMARY

A community-driven initiative by Rejuvrth to bridge city living and ecology. Supported by national agencies, it transforms organic waste into nutrient-rich compost to support Singapore's circular economy.



PROJECT OVERVIEW & OBJECTIVES



Pilot Study: July – Dec 2024

Supported by NEA and Gardens by the Bay to test decentralized waste management.



Aligning with National Goals

Directly supports Singapore's Zero Waste Masterplan and '30 by 30' food security goals.



A Scalable Blueprint

Creating a repeatable model for organic waste management across urban residential districts.

THE BOKASHI METHOD



Odourless Anaerobic Fermentation

Uses specialized Bokashi bran to break down food waste without unpleasant smells.



Designed for Apartment Living

A compact system that efficiently processes tough waste including meat and dairy.



Tangible Ecological Impact

Redirects organic waste from landfills to restore soil health and rejuvenate urban greenery.





PROJECT PLANNING & SETUP:

PHASE 1: COMMUNITY ENGAGEMENT

MULTICHANNEL INITIAL OUTREACH

Build awareness and gather data using online surveys, social media, community events, workshops, and direct collaboration with Residents' Committees.

VOLUNTEER RECRUITMENT & TRAINING:

Recruit "Bokashi Champions" and provide comprehensive training materials, hands-on sessions, and ongoing mentorship to ensure operational excellence.

INCENTIVE & REWARD PROGRAMS

Drive participation through volunteer reward systems, community spotlights, and discounts on Bokashi bins

PHASE 2: SITE SELECTION & APPROVAL

OPTIMAL SITE CRITERIA

Choose locations that are easily accessible to residents, offer ample shade, have proximity to a water source, and provide enough space for future expansion.

SECURING REGULATORY APPROVAL

Submit formal site proposals and coordinate directly with the Town Council, MCST, and NEA to ensure compliance and land-use permission.

PHASE 3: PROCUREMENT & EDUCATION

ESSENTIAL EQUIPMENT LIST

Source durable Bokashi bins, high-quality composting bin, large-capacity common bins for collection, and safety gear including gloves and masks.

EDUCATIONAL SIGNAGE

Install clear, durable signage at the site to guide users on proper composting practices and prevent contamination.

PHASE 4: BUDGETING & SUSTAINABILITY

FINANCIAL FOCUS AREAS

Allocate funds across five primary pillars: bin procurement, ongoing bran supply, educational materials, volunteer training, and a dedicated maintenance fund.



IMPLEMENTATION DETAILS



PHASE 1: FOOD WASTE COLLECTION

SEGREGATION GUIDLINES

Allow: Cooked/Raw food scraps
Not Allowed: Liquids, Large Bones

Collection Steps 1:
Collection food waste in Bokashi Bins, layer it with bran regularly. Once filled, do not open the bucket for 2 more weeks.



COLLECTION SYSTEM

Collection Steps 2:
Designate collection points within the community for easy drop-off. Weekly emptying of said food waste from each household in the community bins.



HYGIENE & PEST CONTROL

Ensure bins are sealed tightly to prevent odours and pests. Conduct regular cleaning and maintenance of bins and collection points. Use effective microorganisms (EM) to enhance fermentation and reduce potential issues



PHASE 2: BOKASHI COMPOSTING PROCESS

STEP BY STEP GUIDE & TROUBLESHOOTING

The Process: Layering food with bran in the Bokashi Bins until filled. Wait for 2 more weeks for fermentation. Empty the ready bucket on community bins.

Community Fermentation: Filled community bins sealed for another 2 week for further fermentation.

Troubleshooting: Lids should be sealed, regularly drain the liquid, cover the top layer with Bran.

FERMENTED BOKASHI MIX (PRE COMPOST)

After fermentation, the mix is partially broken down but not yet soil-ready.

Store in a cool, shaded area until ready for the next composting phase.



PHASE 3: COMPOST MATURATION

SECOND STAGE OF COMPOSTING

Mix the fermented Bokashi waste with soil or bury it in a designated composting area.

Allow 4-6 weeks for the organic material to fully decompose into nutrient-rich compost

COMPOST UTILIZATION

Use the finished compost in community gardens, parks, and residential landscapes.

Offer compost back to participants to encourage continued engagement.

Integrate with urban farming projects to support local food security initiatives.



THE BLACK GOLD





ASSESSING IMPACT AND FUTURE GROWTH



MONITORING AND EVALUATION

DATA COLLECTION

1. Waste Diversion - Amount of food waste diverted from landfills
2. Community Participation - Number of households involved
3. Compost Quality - Nutrient levels and usability
4. Participation Consistency - Frequency and regularity of participation
5. Community Feedback - Ease of use and participant satisfaction

MONITORING TOOLS

1. Weigh Scales - Measuring food waste and compost quantities
2. Participant Surveys - Feedback forms and questionnaires
3. Observation Logs - Volunteer tracking of progress and issues
4. Digital Tracking - Spreadsheets or apps for data recording

EVALUATION FRAMEWORK

1. Environmental Impact - Waste reduction and soil enrichment
2. Community Engagement - Participation levels and satisfaction
3. Process Improvement - Outreach, training, and operational enhancements
4. Project Scalability - Long-term feasibility and expansion potential



SUSTAINABILITY AND SCALABILITY

LONG TERM MAINTENANCE

1. Volunteer Development: Continuous recruitment & training of volunteers.
2. Funding Sustainability - Securing ongoing funding
3. Community Ownership - Local composting committees overseeing operations

SCALING

1. Community Expansion through regular trainings
2. Collaboration and Model Adaptation in other places

PARTNERSHIPS

1. Government Support: Collaborations with Gov agencies.
2. Educational Integration: Introducing composting in schools
3. Corporate Engagement: Business support through CSR programs.



LESSON LEARNED

CHALLENGES

1. Resident Resistance - Initial misconceptions about composting
2. Odor Management - Controlling odors and pests
3. Long-Term Engagement - Sustaining participation over time

SOLUTIONS

1. Community Education - Interactive workshops on Bokashi benefits
2. Proper Maintenance - Bin placement, upkeep, and EM application
3. Incentive Programs - Recognition, rewards, and feedback mechanisms



BEST PRACTICES



1. Early Engagement - Involve community from the beginning
2. Visual Education - Simple and easy-to-understand learning materials
3. Proactive Monitoring - Regular tracking and issue resolution

TANJONG RHU COMMUNITY COMPOSTING PROJECT

PIONEERING PILOT STUDY FOR URBAN SUSTAINABILITY



The Tanjong Rhu Community Composting Project has demonstrated that a decentralized, community-driven approach to food waste management is both feasible and impactful. By using the Bokashi method, the project has successfully minimized food waste, engaged the community, and contributed to urban sustainability. We encourage other communities to adopt this model and work towards a circular, zero-waste future.



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“So far, the project has kept 16,000 kg of food waste out of landfills and continues to grow.”

