

> What it is

Daily Dump was started in April 2006 by Poonam Bir Kasturi, a designer and educator an alumnus of the National Institute of Design, India, to create a new perception of "waste" and enable dignified action related to waste. It was the result of research and discussion around various possibilities of design intersecting with society.

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Name of project:

Daily Dump - Compost at Home
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Bangalore 560 008 INDIA
www.dailydump.org | dailydumpcompost



These products have been designed to give a Bangalorean an odour free and pest free solution to composting at home. The project focus was "manage your waste".



Mota Lota
370 ø x 1350 ht
INR 1650/ \$33
17 Kgs

Khambha
320 ø x 1110 ht
INR 930 / \$19
28 kgs

Patta Khamba small
280 ø x 450 ht
INR 200 / \$5
19 kgs

Gamla
285 ø x 190 ht
INR 100 / \$2.5
9 kgs

Dimensions, weight & suggested retail price:

Date first placed into distribution:
14 th April 2006

What is it?

Bangalore – a dump?

Bangalore produces 2000 tonnes of waste everyday. The centralized government composting plant can handle only 500 tonnes per day. The rest reaches dumps that are illegal. Till Bangalore gets a planned and efficient waste management programme, this situation is likely to continue. And the planned programme is nowhere in sight.

The story today

70% of the waste generated in the average Indian urban home is organic wet waste.

Bangalore had large houses with gardens and people composted in pits in their backyards. Now, they just throw the waste out onto the pile at the end of the road. The government tried to introduce a "Swacha Bangalore" campaign of collecting segregated waste at the doorstep. Our research revealed that citizens lost faith in this system once they saw that segregated waste is mixed up again in the truck that transports the waste to the landfill site.

Home composting – is it possible?

We asked Bangalore homemakers about home composting. Here's what we found:

1. There are many people who have never considered composting as an alternative waste management process.
 - The perception of waste management being something that the government has to do is fairly widespread. Composting is "not my job".
 - Add to that the concerns related to the smell and flies that are normally associated with garbage... and then
 - The fear of having to do it yourself – what if don't do it right?..... And create a bigger mess

2. There are, however, people who are interested in the idea. However, they had some questions such as these –
 - We don't live in houses with large garden areas anymore. So how will I compost? Are there products to help me do this?

- Where can I find information about composting that is relevant, contextual and easily available as and when I need it?
- What are some of the common problems I could face, and how do I solve them?

So a mere product range was not the solution. This project is about the design of an overall system that would deal with **products, communication, service, and dissemination** – using lessons from eco-sustainability.

> Swachha means clean



> What it has addressed

Problem: What was the design challenge?

The Design Challenge: To enable homemakers to recycle their organic waste through a home composting product - service system.

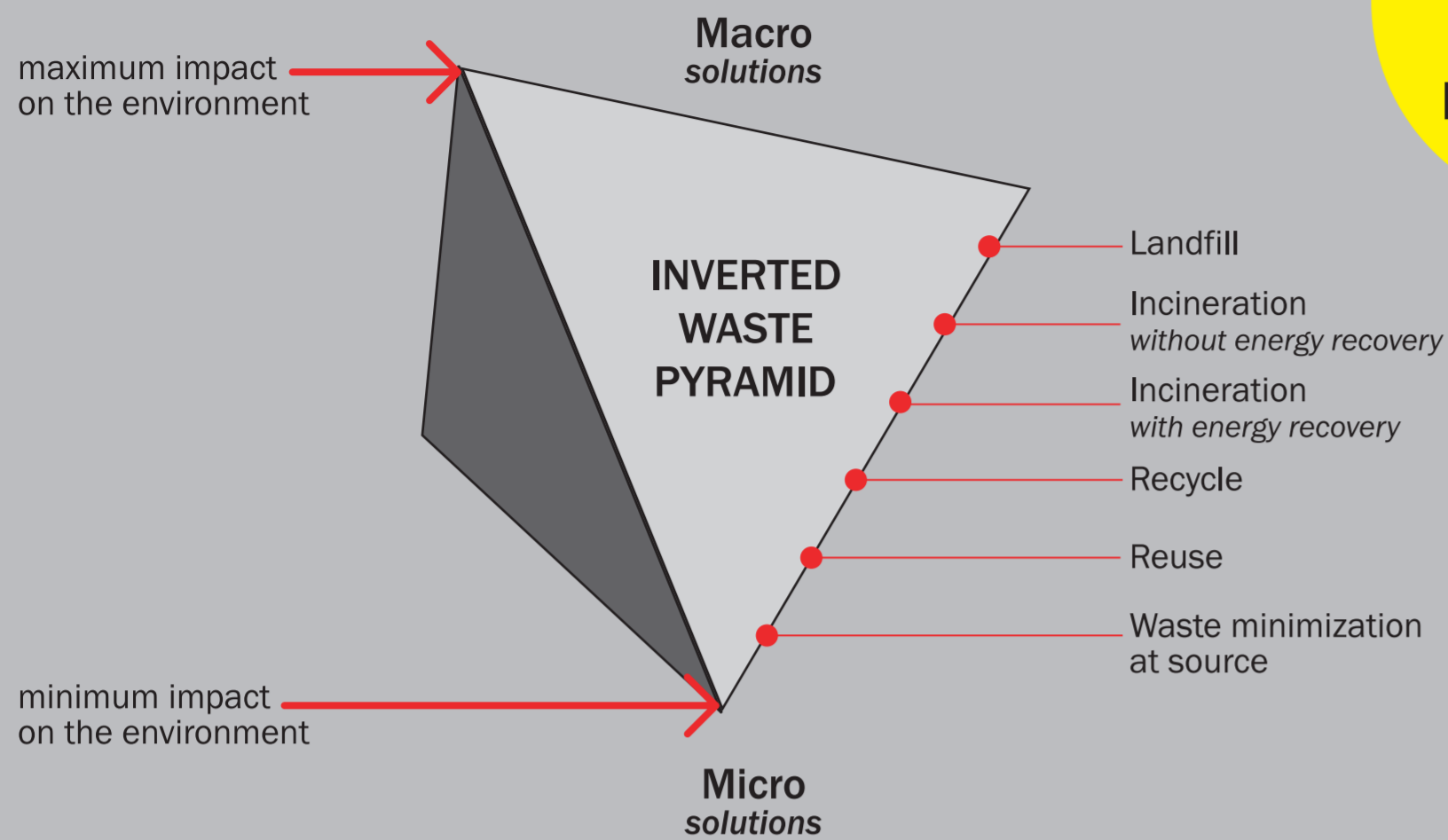
We had to design a brand and a product-service system for the client. The brand had to set the tone for further eco-projects that the client chose to develop.



Problem	Objective	Challenge
Many people have never considered composting as an alternative waste management process.	To convert them into "believers".	To convince them, and provide "good" answers to their concerns.
The wide-spread perception of waste management as something that the Government has to do. Composting is "not my job".	To get them to take ownership for managing their waste.	To make them self-driven composters, not motivated by any extrinsic reward/ device. To make it a 'cool' activity, rather than a chore (that is cumbersome, time-consuming etc).
The smell and flies that are normally associated with garbage need to be 'managed'.	To eliminate flies and odour. To introduce new smells into the process that are natural. (To gain acceptance of the presence of a few flies).	To overcome mindsets, even of educated people, and to get them to believe that if managed well, this is a hygienic process.
The fear of having to do it yourself – "What if I don't do it right?..... and create a bigger mess!"	To create a feeling of being supported – that help is just a phone call away.	Strong service design and back end support material to be put in place.
"We don't live in houses with large garden areas anymore. So how will I compost? Are there products to help me do this?"	To design, manufacture, distribute and service a range of products that are 1 F unctional 2 A ffordable 3 S ustainable 4 aes Thetic	These products must : 1 Be easy to use 2 Fit into Indian ways of living 3 Be easy to maintain 4 Be made of simple materials 5 Use appropriate technologies
Where can I find information about composting that is relevant, contextual and easily available as and when I need it?	To have very visual material, that is easy to understand by our target customers and also try and make it available in different Indian languages.	To do it without being intimidating and over burdening with scientific facts. To attract readers to become users. Should cover "How to...", "FAQs", "Troubleshooting" and "Success stories".

> The eco - angle

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Impact

Households have so far been the primary users of the Daily Dump composters. More recently, offices have also evinced interest, partly to meet Corporate Social Responsibility and partly to save costs of haulage and landscape manure by composting onsite. Similarly, properties developing further from the cities are not always catered to by the municipal corporation in Bangalore, propelling them to manage their waste at source through composting.

Daily Dump has also developed interesting and fun publications for children to understand the impact of their everyday lives on their immediate and larger environment. These books have in the past year reached stores and schools across India. A couple of schools have in fact included the entire set of books in their curriculum.

15 Clones (India and abroad) have replicated our products while contributing to cleaner cities. The design drawings, methods, processes and user feedback are all available on the website at no cost. Today, the brand is seen as a "collaborator" and "social entrepreneur".

There is a Do-it-yourself section on the website to help people create their own low cost composter from locally available materials.

This product needs no packaging, since it is sent to urban centers loaded in a truck with hay packaging that is goes back to the village for reuse. The customer buys the product without packaging.

Materials and production; How is it made and what materials are used.

Terracotta is the primary material for the products. The reasons for this decision are:

1. It was not capital intensive.
2. Raw material is affordable and easily available locally.
3. Terracotta's absorption properties solved the problem of the Leecete that is discharged in the composting cycle.
4. The material allows for rapid prototyping and iteration. It is possible to incorporate user feedback quickly and at low cost.
5. This product allows communities that traditionally use this material a new product range that is linked to current urban needs. It breaks the "crafts are merely decorative" stereotype. We hope that this will allow new utilitarian products to emerge - like rain water accessories for architecture, outdoor products, etc.

What was the design solution and how is it environmentally innovative?

The solution we designed is a brand and product + service bundle.

The product is basically a terracotta container (or 'pot'), which comes in a range of sizes and forms. The containers are designed to allow for aeration which is critical for composting. The design helps rotate and distribute volumes which makes composting at home manageable. The user (i.e the Indian homemaker) dumps the day's organic waste into the containers, and has to attend to maintenance only once a week. The containers are modular so easy to replace if damaged. The products require less space than traditional compost pits. They are cheap and easily affordable, very easy to use and maintain, and of a form that Indians can relate to culturally.

The service component involves helping the user with the minimal maintenance that is required – i.e. help with managing flies and other pests, and rotating the pile of waste as necessary.

Some of the significant aspects of this solution are listed below.

1. The product is the 'first of its kind'

There currently exists no such product, which is aimed at recycling/ managing waste at source – the Indian home.

2. The product is robust and sustainable

a. It is 'open source' – the design drawings, methods, processes and user feedback will all be available on the Net at no cost. This is to enable micro-enterprises to sprout and flourish in different parts of India. A centralised production and distribution system will make the solution unsustainable. Our solution will also enable the product/ design to evolve, with local needs and solutions creating diverse and incremental value addition.

b. The manufacturing process is not capital-intensive. It uses indigenous knowledge and materials, and involves traditional potter communities of South India. As there are potter communities in virtually every part of this country, the process is very easily replicable.

c. A significant part of the product is the communication materials, user manuals. Potter communities cannot produce these, but because they are made available easily to urban households (through the Net), the communication material functions as a logistics-free bridge between the producers and the buyers/ users. No middlemen are required.

3. The service component plays two critical roles

a. First, it helps the product to be accepted by a larger community, even the "Doubters".

b. Secondly, it offers opportunities to local communities, NGOs, micro-entrepreneurs to generate meaningful livelihoods.



The first response of most customers when they see the products is, "Oh, I like them! They don't look ugly! I feel like composting... I want them in my garden!"



Aesthetics: How does the appearance enhance the product and encourage acceptance?

The appearance of the product achieves several things:

- There is an old tradition in South India of using terracotta for making votives and granary objects. These craft traditions through hereditary dissemination have created very refined skills in production and marketing. The aesthetics of this product taps into this cultural and social paradigm. As those products served their time, this range of composters serves our urban needs now using the same materials and processes of manufacture.
- They look good enough to want to buy and use. Composting is traditionally associated with bad odours, flies and so on – it has negative connotations. On the other hand, the first response of most customers when they see the products is "Oh, I like them!, they do not look ugly, I feel like composting, I want them in my garden!"
- Gardens in India are associated with terracotta pots. The semantics of the material imply values of "green" "back to earth" and "basic".
- We also have poetic traditions where the pot and terracotta are used as metaphors to describe the symbiotic cycles of life.

How does the design solution benefit the user?

It gives the user a immediate tangible method of reducing waste at source. Its not "a noble idea" anymore – it's a "doable" thing. So it empowers and replaces a feeling of apathy with a feeling of creative solution finding.

The products are

- **Fun to buy** (a bright yellow delivery van and a great service interface)
- **Effective** – that they actually convert organic waste into compost.
- **'Cool'** - in India, historically you had "lower" castes do this job – we had to make this whole task fit into a "cool" urban way of doing things.
- **Versatile** – to fit various sizes of households. (Bangalore has many DINKs – Double Income No Kids!)

Products dispel the notion that composting is too much work, because of their manageable size. The comprehensive range of product sizes allows a to-be user find one that 'fits' her perception of how much she can handle, no more.

Business:

Our take on business

Daily Dump was created with a clear vision to serve the home composting needs of India without being the only player in the market. Consequently, traditional ideas of competition, market share, wealth etc are viewed through a new lens in this setup.

1. The project helps sustain 40 traditional potters and their families in Palamner (3 hrs from Bangalore). It has provided a new utilitarian product for the potters in various clone cities that is linked to current urban needs and has them exploring their own marketing outlets independently.
2. Clones run viable businesses in their cities with the Daily Dump designs and participate in the evolution of solutions to the issues of waste, livelihoods and sustainability.
3. The service support system for maintaining the composters offers opportunities to local communities, NGOs, micro-entrepreneurs to generate meaningful livelihoods.
4. Rag pickers earn less when recyclable waste such as cardboard, plastic and glass is mixed with wet organic waste. Till rag picking is a viable livelihood, composting at least helps reduce their losses.
5. As more homes turn to composting and become aware of better ways of waste disposal, they are more likely to give their recyclable dry waste to local recyclers working in the informal sector.
6. Reduces green house gases. Composters have reached 12 cities in India through the Daily Dump clones and helped customers keep at least 4400 kg of waste from reaching land dumps in India.
7. When the number of homes generating compost reaches a sizeable quantum, cities can hope to return the compost to villages and replenish the soil that produces our food.

Daily Dump aims to support individuals to gradually understand and appreciate the effort involved in waste management. The result is a better-informed citizenry that can then effectively ensure utilization of the State machinery and resources for more specific aspects of waste management.

Organic Waste



Compost