

Invest In Your Local Community

From Waste to Wealth



The amount of waste produced by humans has increased by almost 10,000 percent over the past 100 years. Rapid industrialization, over consumption and the increasing purchasing power of individuals has led to a situation where our land, oceans and air are being indiscriminately terrorized by our garbage. Humans are the only species that generate synthetic waste, breaking the natural harmony of life. As a result, we also have to come up with innovative solutions to manage the waste we generate. The cutting edge now lies around ‘zero-waste solutions’, redesigning our production and consumption systems so that they don’t produce ‘waste’. The good thing is that all of our grandmothers in India lived by the zero waste vision. Historically, handling waste has had a lot of social stigma attached to it in India. Breaking these social barriers, numerous enterprises, along with conscientious citizens, organizations, governments and corporations are leading the way in showing that a *zero-waste society* is a most noble profession, an achievable dream for the benefit of the country, as well as a lucrative business proposition. These businesses can be set up locally in cities and towns across India further promoting the important goal of localization. In this prospectus, we highlight four inspiring waste management enterprises that offer innovative solutions for the waste problem we all have created.

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Terracycle

How does Terracycle work?

Terracycle is a waste recycling company that uses circular methods (reuse, upcycling, recycling, composting) rather than linear solutions like landfills and incarceration. The venture offers *free waste collection programs* for individuals, schools and companies *that are funded by companies and brands*. Companies that tie up with Terracycle pay to **buy back** their waste as part of the EPR legal framework (Extended Producer Responsibility). Some of these multinational companies include Kraft Foods, Honest Tea and PepsiCo. Terracycle offers a multi-pronged solution to waste. We present a few of these programs and the respective revenue models:

- **Upcycling:** Tying up with companies to bring upcycling solutions to pre-consumer and post-consumer waste. Examples include backpacks and bags from scrap denim and drinking pouch material, recycled and upcycled jewelry, photo-frames and gifts made from electronic waste and a lot more. The program is funded by conscientious companies who want to protect their brand image. The 'cool' upcycled products are available for purchase at major retailers around the world as well as online.

- **Municipal Programs:** Collaborating with city governments, businesses, citizen groups and individuals in various cities to provide recycling and waste management solutions. Cigarette waste is the most common waste stream being recycled in this program. The cigarette waste program is funded by the cigarette companies themselves who benefit when perceived as being conscious about the waste they generate. The butts are recycled to make plastic pellets.

Investment

A prospective business on the lines of Terracycle would include investment in the following areas: design teams and facilities for handling large scale upcycling solutions, recycling facilities for creation of raw materials,

composting facilities, waste collection and storage facilities including pickup trucks, drop off boxes, web and app based services, call centers.

Social-environmental benefits

Zero waste solutions like upcycling, recycling offer enormous environmental benefits over traditional linear solutions. Over 25% of human produced synthetic waste ends up in our oceans while the remainder either ends up in landfills or is burnt in incinerators realizing toxins both into the land and air. Terracycle aims to combat this problem by creating a system of incentives for consumers to segregate, return and utilize their waste.

Contact

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**"It is not waste
until it is wasted."**

LOCALIZATION

Building strategies to replenish the local economy, local culture and local ecosystem

Vivam Solid Waste Management

How does Vivam work?

Vivam is a waste management enterprise focused on solid waste management techniques like composting, vermicomposting, mechanical composting and biogas. A major area of focus is municipal solid waste treatment for power generation by converting waste to energy. The enterprise has partnered with municipalities across the nation both in rural and urban areas to treat kitchen, canteen, poultry, agricultural and food processing wastes. Their business is spread across the following domains:

- **Biogas:** Vivam develops and installs biogas plants with a capacity to treat 4 kg to 400 tonnes of waste per day. They

have partnered with various municipal councils and corporations around Maharashtra to treat farm waste, Municipal Solid waste and slaughter-house waste.

- **Mechanical Composting:** This technique is useful for processing mixed waste in large quantities. Vivam works on mechanical composting techniques like aerobic composting which can process from 100 kg to 1000 tonnes of waste per day. These units are compact enough to be installed in metropolitan cities as well as industrial sites.
- **Vermicomposting:** Vivam has developed a scientific method of vermicomposting called "Swarup Vermicomposting System". Currently the government of Maharashtra subsidizes this vermicomposting method for farmers. The plants range from 100 gms to 400 tonnes in capacity and are operational in various districts of Maharashtra, Karnataka, Madhya Pradesh, U.P. etc.

Revenue Model

Vivam's primary revenue model is the installation and maintenance of their various waste processing plants in various municipalities, schools, colleges, government offices, residential and

industrial complexes as well as for individual farmers. Additionally they also provide waste management consulting to municipal councils and municipal corporations in various cities and towns.

Investment

The major investment is in the technology for biogas plants / mechanical composting plants of varying capacities and facilities for vermicomposting.

Social-environmental benefits

Composting techniques like biogas and vermicomposting are an efficient way to treat organic waste and produce energy. They apply natural recycling techniques here to convert waste to energy and manure. These renewable sources of energy lower our dependence on fossil fuels as well as help create a zero-waste environment. The manure and fertilizers produced by composting are chemical-free, increase the organic content of soil and have numerous benefits over chemical fertilizers and pesticides!

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**"We cannot run a
wasteful society on
a finite planet."**

Pom Pom

How does Pom Pom work?

Pom Pom is a web-based recycling platform that helps to dispose off recyclable waste in a disposable manner after buying it at one's doorstep for the best possible price. Pom Pom reminds people that recycling one tonne of paper can save seventeen trees, and recycling one aluminum can save enough energy to run a TV for three hours. The venture has started operations in South Delhi and promises to address the disposal needs of more than 1,000,000 individuals, as well as help them contribute to the Swachh Bharat Abhiyaan. Pom Pom is your

modern day kabaadiwala, helping you reduce the burden on landfills, keep the environment clean, conserving natural resources and saving energy.

Pom Pom deals in all kinds of recyclables like paper, plastics, cardboard, glass, metals and much more. Pom Pom also ties up with recycling partners who buy waste and recycle them to manufacture new products. They have integrated modern technology and fair practices into their businesses such as web/app based booking



Know your 4 Rs:

**Refuse
Reduce
Reuse
Recycle**

INTERESTING RESOURCES

Story of stuff:
storyofstuff.org

Cradle to Cradle Design:
mdbc.com/c2c-framework

Toxic Links: toxicslink.org

Thanal: thanal.co.in

Daily Dump:
dailydump.org

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electronic weighing scales, quick doorstep payment and transparency, with price per kilogram of all recyclables given on both the app and website.

Revenue Model

Pom Pom segregates the collected recyclables into different categories and generates revenue by selling them to industries and businesses that use these as raw materials.

Investment

The founders invested about Rs. 1 crore in the venture, initially in app development and branding and later in vehicles, manpower, and warehousing. On the ground, they presently have 11 vehicles, around 30 staffers and other call centre employees. The initial focus is on Delhi and

they are in talks with schools and hospitals for the initiative.

Social-environmental benefits

Recycling of waste materials offers a circular model to waste disposal and reduces the burden on landfills and our oceans. Pom Pom offers citizens an environmentally-friendly and conscious way of disposing their unwanted recyclable trash.

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Bakeys

How does Bakeys work?

Bakeys is a unique enterprise that produces edible cutlery as an alternative to disposable plastic/wooden cutlery and bamboo chopsticks. The enterprise tries to counter the rapidly increasing trends in use of plastic disposable cutlery through the production of edible cutlery made of Jowar (Sorghum). The ingredients being 100% natural and chemical free, they can either be consumed, fed to cows or even disposed off without any adverse effects to the environment.

The choice of Jowar was made with the intention to promote the cultivation of local millets that consume far less groundwater as opposed to rice. Bakeys estimates that a 25% decrease in rice cultivation would reverse the groundwater depletion trends in the country. By creating a market demand for millets, Bakeys hopes to gradually shift the cultivation trends of our farmers.

Investment & Revenue Model Investment for this business includes prototype machines and moulds for the cutlery, raw materials (jowar) for the edible spoons, as

well as marketing and creating awareness about the harmful effects of plastic. Bakeys generates its revenue by selling its products online along with setting up stalls at organic bazaars and exhibitions.

Social-environmental benefits

Bakeys has helped in creating an edible, organic alternative for plastic cutlery. It has offered a zero-waste solution for cutlery which has far superior health and environmental benefits. Plastic has chemical components that are toxic and can leech into our food. Millets based cutlery also avoids the use of petroleum which is used in the manufacture of plastic products. Millets are super nutritious. In addition, the manufacturing unit of Bakeys is an all-women enterprise!

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