

## ScrapShala

Established in January, 2016

<http://www.scrapshala.com/>

Geographic Spread: Varanasi, India

15 Artisans, 2,000 product designs



**Key Messages:** ScrapShala, established in January 2016, is a Varanasi based social enterprise that up-cycles dry waste and converts it into utility based products. They hire local artisans to manufacture their products that are available through online and offline sales. Approximately 13,000 kilograms of dry solid waste saved from going to dumping sites, by manufacturing up-cycled products since 2016. Working at ScrapShala has doubled the incomes of the less privileged artisans and helped revive Indian traditional art.

### Overview of the area (Varanasi)

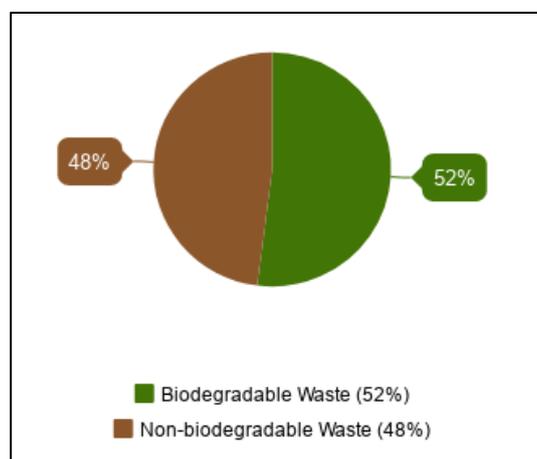
Varanasi, also known as Banaras, is one of the oldest living cities in the world. It is situated in eastern plain region of Uttar Pradesh. According to the 2011 census, Varanasi city supports a population of about 1.20 million with a floating population of 0.2 million. The city has moderate air quality but it is being loaded by large quantities of waste generated every day, the effects of which could be extended to its air through burning and dumping of different wastes. Major water sources in Varanasi are the river Ganga and various ground water sources (tube wells) that are spread all over the city. The water from Ganga lies in the polluted range owing to the tonnes of garbage that ends up in the river daily, making its water unfit for consumption. Ground water sources require some form of treatment before consumption.

### Condition of the waste:

The daily waste generation in Varanasi city is estimated to be over 650 metric tonnes. The Varanasi Nagar Nigam (VNN) is responsible for collection, segregation and transport of this waste. Out of the total waste generated, only 450 metric tonnes of waste is collected and disposed of without any treatment. There are no specific sites assigned for waste disposal and it is dumped in and around the city in the nearest available low-lying areas. These low lying areas are almost always adjacent to the river Ganga, which is constantly at a risk of being polluted by the waste.

Source of Waste	Average Percentage (%)
Household Waste	55-65%
Commercial, Religious and Institutional Waste	35-45%

Table 1: Different sources of waste in Varanasi



Percentage distribution of waste in Varanasi

The primary collection of Municipal Solid Waste (MSW) is done manually, using conventional wheel barrows and hand carts. There are 123 garbage bins, each with a waste storage capacity of 127 m<sup>3</sup> and additional 21 fixed primary collection centres in the city for the citizens to dispose their garbage. Based on the Hon'ble Supreme Court's directives a disposal site of eight ha is identified in Baluadih and is being considered by Nagar Nigam for sanitary landfill (CPHEEO, 2014)<sup>1</sup>.

**Need**

Like most places in India, Varanasi uses open dumping as a solution for waste disposal. Most of the dumping sites in the city are overburdened with more garbage pouring in every day. It was identified by ScrapShala that due to lack of adequate management of waste in Varanasi, most of the recyclable dry waste was dumped in open sites that were adjacent to the Ganga River, without any treatment. Environmentally conscious citizens preferred to compost their biodegradable waste yet they were uncertain of handling the non-biodegradable waste. ScrapShala realised that the lack of a decentralized solution for recycling of dry waste was another reason that led to improper disposal of dry waste in the city. There were environmental and health issues pertinent to the areas near these open dumping sites. There was a need identified by ScrapShala to minimize waste to reach dumping sites.

Varanasi is known for its handicrafts that employed workers belonging to the blue-collar category with salaries in the form of daily wages. However, the mechanization of most processes resulted in the unemployment of these artisans who possess the traditional skills and expertise in handicraft. ScrapShala realised that as a last resort, these artisans had diverted from their field of expertise was affecting their livelihoods as it left them unemployed. A need was identified to explore decent job options for skilled artisans.

**Response**

As a response to the prevailing situation, ScrapShala was established in January 2016. It is a social business venture that manufactures utility products derived from scrap. It was built on the idea of using the expertise of the artisans to create and commercialize products that were derived from recyclable dry waste generated in households/commercial areas/industrial areas. They hired welders, weavers, carpenters, and painters etc. to manufacture innovative and trending products. The only difference the artisans felt was that instead of using fresh raw materials they would be using trash to manufacture innovative, up-cycled quality products. The idea of up-cycling trash was derived from companies in western countries that used waste to create useful products. Their products are customized as per their clients' needs; since they use manual labour for manufacturing. They have set up a workshop in Varanasi where the artisans manufacture these products. The products vary in size and designs depending on the demand of the customer. They sell products through their social media pages and online stores. The main motive of ScrapShala is to create sustainable livelihoods for the artisans by creating a business model that would support their purpose as well as solve the waste problem.



**ScrapShala at a Glance**

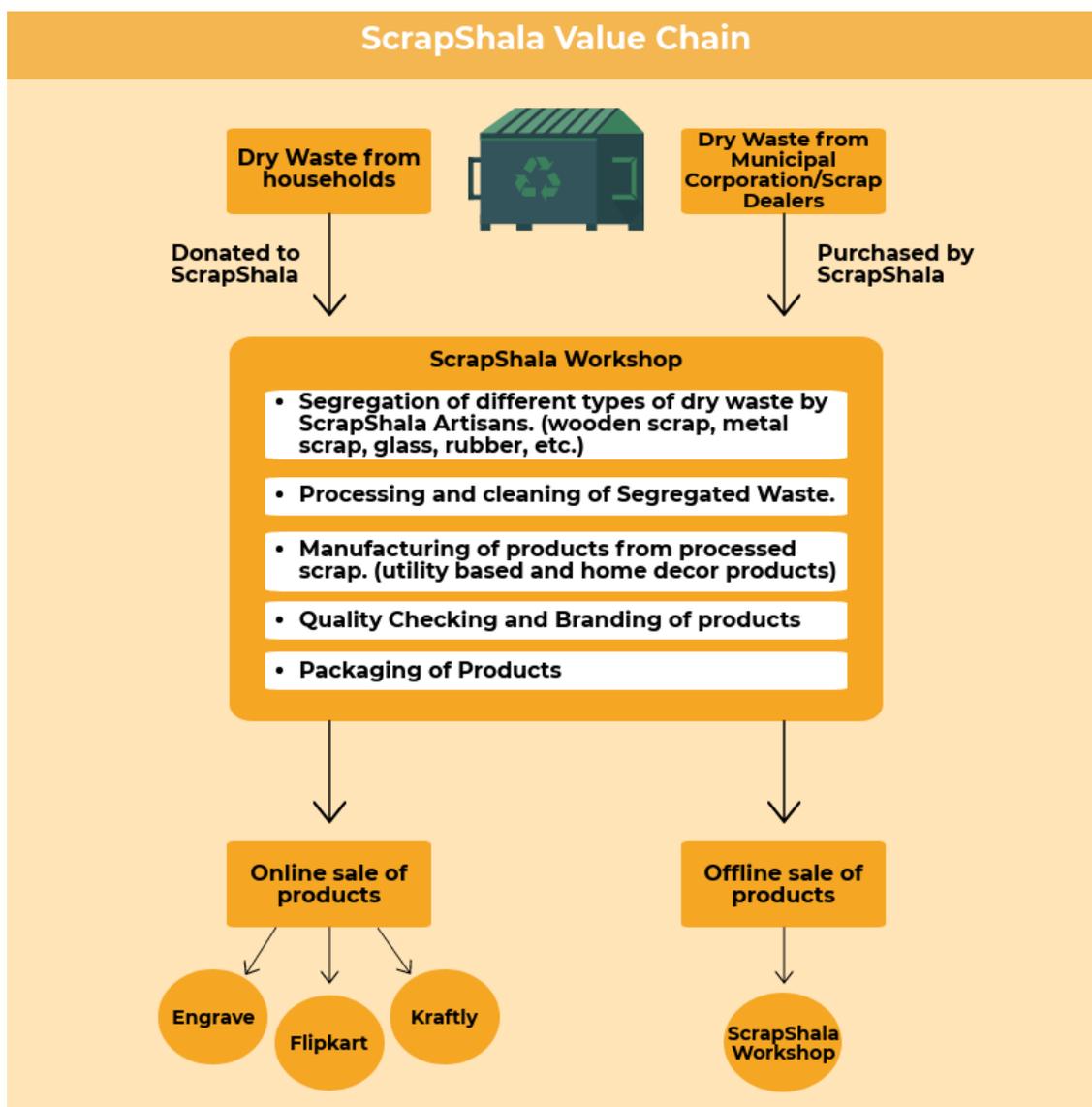
<sup>1</sup> CPHEEO: Central Public Health and Environmental Engineering Organisation

**Process**

The idea of building the ScrapShala business venture with a model that supports artisans and deals with scrap/waste materials was initiated by Ms Shikha Shah, an IIT Madras student who was pursuing an entrepreneurial career in Rural Technology and Business Incubator (RTBI) at that time. The business was started using scrap from households and training the artisans to work with waste materials. It took them about five to six months to collect scrap, hire artisans and establish a workshop where they could work on production. ScrapShala started as a business through private funds and is a self-sustaining venture.

They sell their products through 20 online stores such as Engrave, Kraftly, Flipkart, etc. as well as through their offline network. The online products are manufactured in advance to avoid any delays in delivery. Their range of online products has over 80 different designs. For offline orders they manufacture products based on orders. Their handmade products are flexible to customisation that caters to the customer’s needs. Initially they had started with utility based products but now their range of products is much wider. The customised products’ cost ranges from INR 100 to INR 10,000 depending on the production period. ScrapShala promotes their business through customer recommendations, exhibitions and social media.

ScrapShala sources its waste/scrap from the Municipal Corporation of Varanasi. They also buy scrap from a few households and some people donate their waste. The waste is collected, stored and cleaned in their workshop before the manufacturing process begins. They use all types of scrap wooden, metal, glass, etc. to manufacture products. Their team consists of twelve people with eight full time artisans, four interns at the management level and three to four part time artisans. All employees are provided with a fixed monthly salary. Most of the finances are spent on the artisans’ salaries, other additional costs include purchase of scrap and other materials required for manufacturing of the product.



## Performance

### *Environment:*

- Approximately 13,000 kilograms of dry waste saved from going to dumping sites, by manufacturing products since 2016.

### *Social:*

- Sustainable livelihoods provided to 12-14 artisans in Varanasi. The artisans have fulltime jobs, respect and identity at ScrapShala and earn almost double of what they used to earn previously.
- They conduct frequent workshops in schools, colleges and other institutions to promote the idea of utilising scrap to build innovative products.

### *Business:*

- Monthly sale in 2017 has been INR 1 to 1.5 lakh per month; they intend to increase their target to INR 5 lakh per month.
- Approximately 70 product designs manufactured for online product and 2,000 designs for offline products.

## Overcoming Barriers

- Dealing with waste was a problem for the artisans initially as they were not familiar with the idea of creating useful products from waste.
- Some customers were unaccepting towards the products being made from scrap owing to its origin i.e. garbage. They had to design their products in a way that would be appealing to the customers.
- Pricing of the products was a problem as people assumed that waste derived products would be sold at low prices.

## Future Scope

ScrapShala has been instrumental in building a market for waste derived products that are innovative and unconventional. They are in talks of collaborating with a few organisations in different cities. In the next three years they aim to establish franchises in major cities like Mumbai, Delhi, Bangalore, etc. with the help of partners. By doing this they aim to generate over 60 jobs for artisans. Currently, they are focusing on expanding their business in Varanasi and hire more artisans. With encouragement and support their aim is to innovate more products derived from waste to make a difference.

*Compiled by*

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