

PalArch's Journal of Archaeology of Egypt / Egyptology

"Sustainable Initiative of Worshipped Flower Waste and a Diverse Social Enterprise; "Phool.com""

Dr. Aruna Deshpande

Associate Professor, University of Mumbai's ADMIFMS

Dr. Aruna Deshpande, Sustainable Initiative of Worshipped Flower Waste and a Diverse Social Enterprise; "Phool.com", -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(7). ISSN 1567-214x

Keywords: Social initiative, diversity, waste management, market.

Abstract

Our country India is a culturally very religious and diverse, according to changing environmental and human needs this approach needs to adapt and improve on hygiene and inclusivity. We need to be inclusive and conscious of education due to the global connectivity. Appreciate the humans needed to work with dignity and respect. This is a case article is based on the lines of the awareness of sustainability and a social initiative brought about by a young Indian entrepreneur Mr. Ankit Agarwal and his Team of young educated members who started this initiative the Phool; which is based on the idea of using wasted flowers offered in temples, to create fragrances and other products and market it in the different parts of the country and also spread the market globally. This entrepreneurial social enterprise also took the initiative to employ diverse women and empower marginalised by hiring them, and making them economically stable to give them a life to live with dignity and respect. It is this oppression, which demotes millions to injustice and poverty, and in the Covid-19 Lockdown phase and been trying to tackle this social initiative in the dynamic environment. During the lockdown, the company ensured its supply chain by sourcing flower waste directly from the distressed horticulture farmers, bringing them critical income during times. Phool.co has given a life of dignity to dozens of women, and it did this despite having an option of automating the process.

*From "dirty" to dignified: These flowers transform lives
This social enterprise set out to clean India's rivers of temple flowers. Now it's
changing lives too.*



"I am impressed by your Phool enterprires in India which is perfect example of circular economy. Keep setting the standards for others to follow."

Paul Polman (CEO Unilever).

Introduction

India is a land of festivals celebrated all over the country. We have festivals every month and we worship our Gods with flowers and light lamps and essences. On sone such festival, the day of Makara Sankranti, which is an ancient Indian festival marking the end of the winter season, this is celebrated by bathing in the sacred waters of river Ganges. On that cold winter morning in 2015, a the founder Ankit Agarwal's friend , who was visiting his him at his home in Kanpur expressed an interest to see the Ghats of the River Ganges. When they sat by the Ghats and amidst people performing Suryanamaskaras, they were aghast spectators to devotees drinking and bottling up the river water despite the evidently visible muck. In spite of being one of the most revered water bodies in India, they started wondering why was this river turning toxic and if it was for the worshippers, who had turned against the river.

It was easy at first to place blame on the tanneries, factories, and sewers that were indiscriminately dumping their refuse into the river. While explaining the complexity of the problem where nothing really can be done about it. While they gazed at the dirty water in culpable silence, they saw the colourful flowers being dumped from the temples nearby turn into mulch as they accumulated and their colours faded away into the murky waters.

Something had to be done about this. Looking for the right opportunity, research revealed to us that most of these flowers that end up at the temples are loaded full of pesticides and insecticides. Once they reach the waters of the river, the chemicals wash off, mixing with the water, making toxic compounds, suppressing the oxygen level and thereby gravely threatening the marine life.

When they realized their mission is to repurpose this waste coming from places of worship, it was ; Their journey – A struggle begun.

To the uninformed, the idea of further using wasted flowers seemed ludicrous. They had to toil to convey the idea of recycling the temple waste because nobody was willing to take it seriously or give up their floral waste. But this simple idea became a roar once it set rolling. They spent hours experimenting, meeting various stakeholders and pitching the idea of managing temple waste in the country. A year

and a half and countless hour in a makeshift laboratory later, flower cycled incense and vermicompost were conceived and crafted. The mission to preserve the river Ganges and empower vernacular people by providing a means to earn their livelihood became a reality.

This is Present – Who they are today; they are a company Phool.com an IIT Kanpur backed biomaterial start-up, was founded.

Phool may have grown much more than the two people it started with but the spirit of adventure of Ankit and his Team, that began at the Ghats of the Ganges flourishes every day.

They had invested themselves heavily into R&D to invent methods to convert temple-waste into biodegradable packaging and bio-leathers. They are also constantly trying to enhance the impact on empowering the women who are employed with to do this job. It has been the earnest effort to turn this pious waste collection into a full-blown social enterprise which now spans three cities.

PHOOL (meaning flower in Hindi) is a for-profit Indian enterprise that employs at-risk women from vulnerable Dalit communities to upcycle floral waste into high-margin products such as incense, organic compost, and a biodegradable alternative to Styrofoam. PHOOL collects more than 4 tons of floral waste every day from temples in Uttar Pradesh in an effort to divert this toxic waste from the Ganges, ultimately improving the river's health. Empowering the marginalised employees by proving their capability with training, a bank account, health insurance and above all, treating them with dignity, respect, and providing healthier, predictable livelihoods that were never before attainable.

As Phool evolved, with many decisions for the entrepreneur, regarding what is imperative- our people, our community, and the Ganges.

The Diversity Aspect:

To date, PHOOL has employed nearly 200 women, who have upcycled over 2,500 metric tons of floral waste and helped to offset more than 275 kilograms of pesticide residue from the Ganges.

But the social enterprise, based in Ankit's hometown of Kanpur, didn't start out with the purpose of empowering Dalit women.

It had another problem in mind: the endless stream of flowers entering India's rivers each day, offered by devotees at temples.

"There are over 200 temples in Kanpur, and the total waste was more than four tonnes a day, " says Karan Rastogi, the then co-founder of Phool, and Ankit's childhood friend.

Wanting to prevent the pesticide and chemical-ridden flowers from adding to the water pollution, they began tinkering in their kitchens, looking for ways to turn unwanted flowers into useful products.

Beginning with humble compost, the duo soon moved on to create incense sticks and cones, with harmful chemicals like arsenic and lead removed, using a formula they cooked up.

The brand name they dreamed up for these products? Phool, which is Hindi for 'flower'.

Along the way, it became clear that the social enterprise could do more, empower marginalised women by hiring them.

So he sought not only to hire women, to sort the collected flowers and craft the incense by hand, but also to create a working environment that treated them as equals.

The women earn 7,860 rupees a month, which is slightly above the minimum wage for skilled workers in India.

And aside from benefits like health insurance, "the first thing that we did was to provide clean drinking water, second was a toilet." This was what one woman said she liked best about working at Phool, the enterprise Ankit Agarwal co-founded. Not the fact that she earns more. Or that a bank account was opened for her, the first time she's ever had one, or that she receives insurance and retirement benefits. But a plastic stool, "which is not even worth 200 rupees, says Ankit the Entrepreneur and Founder, as he recalled the exchange. "I asked her why, and she said, 'I'm 53 years old, no one has ever offered me a seat before.'" For a Dalit in India, everyday dignities, like being offered a stool to sit on; aren't taken for granted.

The caste system, a social order in India powerful even to this day, divides people into different groups based on their professions.

Dalits are deemed "untouchable" by this system, because of their occupations: for instance, cleaners of human waste (manual scavengers) and dead animals, leather workers, street sweepers and cobblers. As such, they face social discrimination, even though "untouchability" and caste discrimination are illegal.

The environmental impact of flower cycling and the development of environmental alternatives to Styrofoam and animal leather alternatives is considerable.

Sacred, Ethical, Humane: The Products

Ankit Agarwal, is of the view that a sustainable solution to the monumental temple-waste problem in India is being addressed by Phool.co. "Through our efforts, we aim to build natural alternatives to synthetic chemical-based products," he said.

Phool is the world's first profitable and lean solution to the monumental 'temple-waste' problem. Which collect 8.4 tons of floral-waste from temples in Uttar Pradesh, India on a daily basis. These sacred flowers are handcrafted into charcoal-free incense, organic vermicompost and biodegradable packaging material through our 'Flowercycling' technology.

All products are handcrafted by the women working there, the flowercyclers, providing them with predictable and healthy livelihoods. They are the genesis of new circular economy model, a stream of waste that was unimagined, pointing to systems change. Today, orthodox temple & religious authorities want to be a part of our mission, pointing to a change against a century old harmful religious practice of dumping temple-waste in the Indian river.



- The products are made from sacred temple flowers, 100% natural essential oils. Phool natural incense sticks are hand-rolled by women flower cyclers.
- Charcoal-free incense sticks dipped in natural essential oils. Phool Organic Incense sticks are safe and healthy and one of the best stress relievers.
- The sweet fragrance of rose serves as a great stress reliever and is one of the best fragrances for aromatherapy. Its remedial aroma lifts the spirits, activates the senses, and transcends one into a happier state.
- Phool Indian Rose luxury incense sticks have a calming effect, soothing your body and mind, ideal for meditation and yoga.
- Each box contains 40 Incense Sticks and a handmade wooden Incense holder. Each stick is 25.4 cm in length and comes with a long burning time of 40 - 45 minutes.
- Entrepreneur Ankit Agarwal's Phool.co (flower) is a company of 100 people working to remove floral waste from the Ganges in Kanpur and recycle it.
- The flowers are repurposed and used to create paper, incense and water colours.
- As well as helping tackle pollution in the Ganges, it also creates jobs for the local people.

Made from temple-flowers, Florafoam is a high-performing, mouldable and durable material. Florafoam is 100% biodegradable and can be buried in your garden post usage. It is customizable to any shape, size, and strength, depending upon the usability. Moreover, it has superior functionality than traditional Thermocol (fire resistance, biodegradable) Florafoam essentially serves as an eco-friendly and cheaper alternative to Thermocol, while also utilizing temple waste to preserve the Ganges. Currently, these products are been developed for B2B clients.

Scattering seeds of change across India

A thriving start-up is inspiring others to join its mission: empowering marginalised women while saving India's rivers.

Sitting at plain wooden tables, women in face masks roll a brown paste into thin cylinders - helping to recycle some of the millions of tonnes of flowers that Hindu worshippers throw into the Ganges.

They are part of a 100-strong team working for entrepreneur Ankit Agarwal's Phool.co (flower), removing floral waste from one of the most polluted stretches of India's holy river in the northern city of Kanpur.

Indians typically offer flowers at temples as a mark of devotion and, Agarwal says, some eight million tonnes of those offerings end up in the country's rivers each year - along with sewage and industrial and domestic waste.

Agarwal's team, most of whom are women, pluck out the discarded flowers near the river bank and gather them from temples to repurpose them into paper and incense - as well as water colours that can be used for the Hindu festival of Holi.

Phool.co has received investment from the social arm of the Tata business group, and most of the women he has employed used to work as manual scavengers or were jobless. Now they have an occupation that commands respect - cleaning the sacred Ganges.

"People see me as an independent woman who can do a job and also run her household. So, this has brought a change in my life," said one, Sujata Devi.

By 2020, Ankit and Karan want to employ 3,700 women (compared to 79 now), while recycling at least 50 tonnes of waste flowers every day.

Aside from Phool incense and compost, the social enterprise is launching a line of eco-friendly packaging material made from waste flowers, which they call Florafoam, akin to Styrofoam, but biodegradable.

In mid-2017, PHOOL secured land for its first production facility in Kanpur. Phool started a second production facility in Tirupati last year, with additional facilities to serve the religious temple towns of Varanasi, Brindavan, and Puri over the next three years.

PHOOL aims to employ 2,100 marginalized and at-risk women from vulnerable Dalit communities by 2021, training them to sort flowers and produce PHOOL's line of products at central production facilities and providing them and their families with transformative socio-economic opportunities.

Business in the Lockdown

During the interview with Mr. Ankit Agarwal, Founder of Phool.co. to know how he is sustaining this business in during lockdown phase, he said, "Due to restrictions on gatherings and conducting rituals and faith related activities and flowers not used, so we got flowers from the horticulturist and flower growing farmers. We also taught them how to dry the flowers, and then, they are brought to the factory for processing". The company ensured its supply chain by sourcing flower waste directly from the distressed horticulture farmers, bringing them critical income during times. In the factory the dry flowers are recycled and products are made. This is how, Phool.co has given a life of dignity to dozens of women, and it did this despite having an option of automating the process.

With this network and innovative practices, their business out had increased and there is no impact on the business of PHOOL in the first lockdown period. Proper hygiene protocol is followed in the factory, the women are working with 50% capacity in rotations. Social distancing, proper sanitisation, wearing mask, masks are also provided to them every week, to working people in the factory manufacturing the flower products.



Workers crush flower waste using powder from discarded flowers which were left outside temples. Image: Reuters/Sanku Kumar

They are funded by Social Alpha, an initiative supported by Tata Trusts and the government of India and DRK Foundation. The employees are also covered by health Insurance scheme to take care of health issues.

Phool.co has now expanded its operations to Tirupati. During the lockdown, the company ensured its supply chain by sourcing flower waste directly from the distressed horticulture farmers, bringing them critical income in the toughest of times.

Conclusion:

While the social enterprise continues to make innovative, sustainable products, “the heart of Phool are the women who make these products,” says Ankit, as the young social entrepreneur.

“When [the women] start working with us, there's a perspective change that happens. They feel more confident about themselves”.

“So, it is not only about financial livelihoods, but also about dignity and respect.”

This case teaches us how a young entrepreneur like Ankit and his Friends are contributing to the sustainability of our culture systems and making an inclusive social change in our country by setting up such initiatives and giving it a commercial exposure globally.

Director IIT Kanpur said *“Innovation in product development aside, I am a huge fan of Phool.co because it is deeply committed to upliftment of marginal women in our society. Phool.co has given a life of dignity to dozens of women and they did this despite having an option of automating the process. For a young entrepreneur, this is remarkable commitment towards nation building”*

For its endeavours to make innovative and sustainable products, Phool.co has received several international recognitions including the prestigious United Nations Young Leaders Award for Sustainable Development Goals , United Nations Momentum of Change Award at COP 2018, Asia Sustainability Award 2020, Hong Kong, Alquity Transforming Lives Awards, London and Breaking the Wall of Science , Berlin.

Founded: 2015, Founder & CEO: Ankit Agarwal and Team, Environment & Climate Change

Location of work: Kanpur, Uttar Pradesh, India, Asia

<https://phool.co>

PHOOL (formerly HelpUsGreen) is led by founder and CEO Ankit Agrawal. Prior

to founding PHOOL, Ankit worked at Symantec Corporation as an automation scientist and has 17 research papers and a Patent. His interest in sustainability stems from the research he did for Waste tyre pyrolysis. Ankit received his Bachelor's Degree in Computer Engineering from PICT, Pune followed by a Master in Innovation Management from SIBM, Pune.

References:

- <https://www.weforum.org/agenda/2021/03/this-company-is-recycling-floral-waste-from-the-ganges>
- <https://twitter.com/wef/status/1374737775954591748>
- <https://phool.co>
- <https://www.ourbetterworld.org/story/dirty-dignified-these-flowers-transform-lives>
- <https://www.ourbetterworld.org/story/scattering-seeds-change-across-india>
- <https://www.ourbetterworld.org/story/dirty-dignified-these-flowers-transform-lives>
- <https://swachhindia.ndtv.com/diwali-gift-save-ganga-air-pollution-waste-management>
- <https://alquityfoundation.org/partners/phool/>
- <https://echoinggreen.org/fellow/ankit-agarwal/>
- <https://www.thehindu.com/news/cities/Hyderabad/floral-waste-recycling-start-up-raises-105-cr/article32634204.ece>