REACHING THE ROOTS

A compilation of
Solutions Journalism stories

by YOCee's Student Reporters

Jan 2022

About this eBook

Solutions Journalism is approaching stories by focusing on the solutions, instead of simply reporting the problem. When writing solution-oriented stories, it's essential to explore both the negatives and positives of the solution being presented. It is a really important topic as it brings attention to practical solutions implemented by people and ensures that there is a deeper understanding of the entire story.

In Oct 2021, we enrolled on a programme on Solutions Journalism hosted by YOCee with P.S. Nandini as the mentor and facilitator. Nandini introduced herself as a past student reporter of YOCee and now a neuroscientist preparing for her doctoral studies.

The first thing we did in Session 1 of the programme was to brainstorm about social problems that we believed didn't have a solution yet. After that, we learnt the basics of solutions journalism, as well as examples and tips on how to find ideas and interview people for a solutions story.

We also joined a Slack channel in which we shared our ideas. After this, we wrote our first solutions stories. In the meeting after the submission date, we got feedback on them.

It was indeed a surprise for all of us when we got to know in Session 2 that there are four types of structures in solutions journalism.

- Positive deviance
- A big new idea
- An experiment in progress
- Local Transformation

All the stories we had submitted were then classified into these groups and all our outshining points were highlighted.

We all then made the cover pages and our own story pages in this ebook on a collaborative document on Canva.

It was a very fun environment to discuss and share ideas with the group as everyone was very cooperative and helpful.

Daya Lakshmi Mukundan

Medha R

Team Solutions Journalism Programme
YOCee

This is a collection of reports written by YOCee's student reporters for a project on
Solutions Journalism during Nov. 2021 - Jan. 2022

Published by

YOCee.in

Facilitator & Project co-ordinator
P.S. Nandini

Cover Pages
Samyuktha Chandrashekar
Maitreyi Aravindan

Indexing
Narayanan A. Navaneetham

Published January 2022

Inside...

Go Green With Herbal Pads

Samyuktha Chandrashekar

Ms. Srilakshmi began making menstrual pads at home in August. Her sister who experimented with various menstrual products was her inspiration to try her hands on making her very own eco-friendly herbal pads.

The use of store-bought pads contributed to environmental pollution which concerned her. Hygiene and the different body types of women were always in the back of her head.

In this rapidly changing world, social media and the internet have always been our go-to sources and that's what she did too! Materials required to make the pad was purchased with the help of YouTube videos.

The herbal pads were suitable for all skin types and were a great alternative to plastic pads. There is always some room for improvement.

While experimenting she also faced challenges like less absorbency of period blood which wasn't suitable for long hours of usage and the high costs of materials. Usage of cloth herbal pads for light bleeding was suggested.

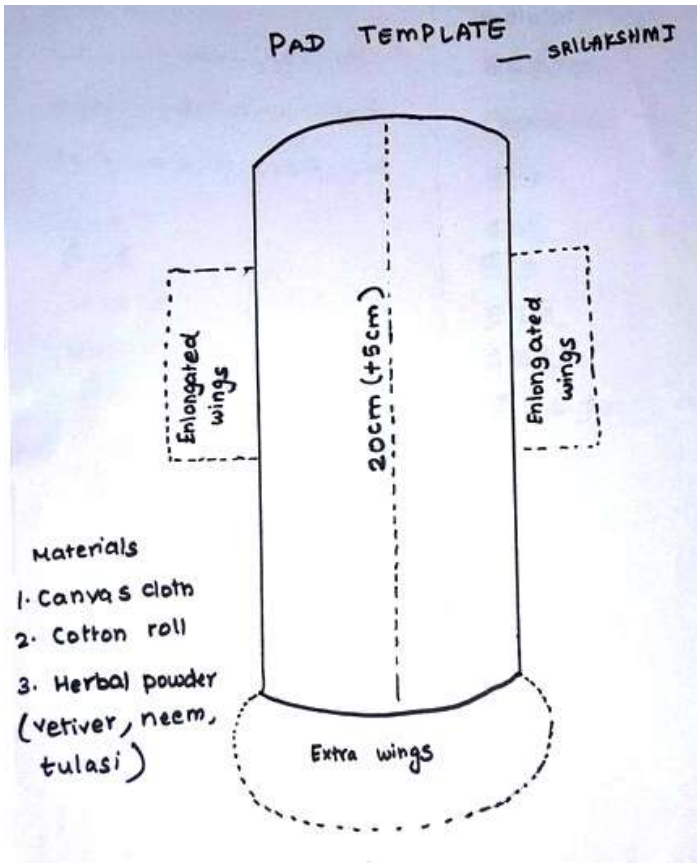
Srilakshmi is an M.Sc nanoscience and technology graduate, who was a passionate research assistant for the past six years. She is now working in the social development sector as an entrepreneurial curriculum developer for college students.

She says that she is just a newbie and is still experimenting with better materials for her pads to be more sustainable.

In the meantime, she is using pads manufactured by self-employed women and encourages others to do so.

A point to remember is that this solution can be adopted by anyone and anywhere across the globe.

Ms.Srilakshmi's efforts serve as a timely reminder to switch back to the old times to mindfully use materials, most importantly pads made by cloth to ensure the well-being of women, and mindfully using resources to go green.



Composting the way to the future

Shalini Ramesh

Times are changing, and so is the world and the environment. Eco-friendly brands, and start-ups that give back to our planet are slowly emerging every day, trying to take back the planet from the clutches of human-led global warming.

The Daily Dump is one such brand and was brought to life on the 14th of April, 2006 by Poonam Kasthuri, with the sole purpose of changing archetypal mindsets about waste and composting, one house at a time.

Waste management is met with thoughts and feelings of wariness, disgust, or dissuasion. The Daily Dump is on a mission for 15 years and counting, bringing sustainable waste management right to your doorstep in the form of composting, with the strong notions that sustainability must be an open-minded journey for both the planet and you.

“It simply brings you closer to nature – watching your kitchen waste transform into organic manure, and that same waste giving life to your garden,” says Anindo Ghosh, the Growth Associate at the Daily Dump over a telephonic interview.

Anindo Ghosh, Growth Associate, Daily Dump

“As we grow, innovate, and evolve, our waste evolves along with us. Just because industries, factories and companies produce more waste than our homes, doesn’t mean we should remove ourselves from the equation,” he continues.

Waste management has been overlooked as something the government or someone else takes care of, for us. The Daily Dump encourages communities to change this mindset. Bad odours, lack of space or confused where to even start?

They've got your back. With step by step instructions on their site and guiding visuals – understanding composting and the science behind it is a click away.

Daily Dump strives to increase their reach by creating composters that are functional, aesthetic, affordable, sustainable, and which blends into the Indian lifestyle. They make regular phone calls to their clients to help them out, clear their doubts and get updates.

Their traditional terracotta composters are made by India's native potter community and artisans, and the Daily Dump has helped improve the lives of these families and their communities.

Khamba 3 Tier Large | stack home compost bin for 4-5 persons

Leave it Pot Small | Daily Dump Outdoor Row Composter

Pooja Rangoli Flower Composter | easy, fragrant compost

Composters on sale on Daily Dump website - www.dailydump.org

Their website showcases five different composters for homes, and three for communities, with the tagline “Order now and make the Earth smile”.

Daily Dump says that they aim for maximum user-friendliness, and have a composter based on the type of house one lives in, the number of people, and the type of waste.

With many of our lives constantly on the run and not enough time, the Daily Dump recognises this and have made composting easy and fun, with countless success stories in homes, apartments, schools, resorts, places of worship, and communities.

They have an open-design policy where interested companies can design their composters similarly. “Our head, Poonam, says that everyone wants to do good. We’re helping them with that. It allows more people to join the composting community. Over 40 adaptations of composters inspired by our design have come to life not only in India but in Hungaria, the US and South America,” narrates Mr. Anindo, proudly.

Bangalore alone produces 30,000 tonnes a day. The Daily Dump community compost about 60 to 80 tonnes, and hope to widen their reach, and grow their community of tree-huggers.

“We hope to forge and strengthen partnerships with companies, countries, the government, and most importantly more communities,” concludes Anindo Ghosh.

From Pollution to Solution!

Maitreyi Aravindan

Whenever we buy a product in grocery stores or in general anywhere, we very often see the shopkeeper wraps them in paper bags or in plastic bags. Even though we carry our own bags, certain packaged products do come packed in paper or plastic.

For example, fruit juices, cooking oils and many eatables are packed in paper or in plastic sachets. The paper used for these packages mainly uses tree pulp as the main ingredient. This means lots of trees are to be cut to make these paper bags. Cutting trees has a huge impact on the environment. It can reduce the size of the forest areas and thus decrease the animal habitat. This makes the animals enter the human territory. The reduction of trees can cause a big change on the climate system of our earth.

In the same way, plastics are a big cause of the environmental pollution as they are not biodegradable. Also, plastics reach the stomachs of animals when they eat the left-over food packaged in plastic bags. It actually can kill the animals.

There are few people who have invented different alternatives to reduce this problem. Sreeja, a class 9 student in Telangana has found an excellent and creative way of making pots from peanut shells. While digging the soil in her school premises to plant a tree, she was shocked to unearth a plastic bag that probably got into the soil years ago. She learnt that this plastic bag was actually used to plant a sapling years ago. She decided not to use plastic henceforth to plant saplings.

According to Sreeja, people think that if they remove the plastic bag before planting the saplings, the soil around the roots of the samplings would come off and the plant may not grow. She also observed that uncollected plastic bags were piling up in her school premises as no one was willing to take

them back. She wanted to do something about this. She started discussing this issue with her schoolmate Harikrishna who was in class 8.

In an interview, she said that these plastic bags gradually disintegrate into smaller microplastic material which contaminate our soil and groundwater and slowly enter the animal and human food chain.

Sreeja with the pot she made with peanut shells and a few more pots with plants ● Photo: The Better India

She and her schoolmate started doing a lot of research to find a biodegradable alternative for the plastic bags. In their research, they found that farmers, after using the peanuts from the shells, burn or bury them in the soil. They realised that the peanut shells have a slow degradation rate under normal conditions but are rich in many functional components and have components that can become manure for the plants.

They dried and powdered the peanut shells, mixed with water and made small pots. They then used these pots to grow saplings and planted them and watched them.

For her indigenous idea, she was awarded a Council of Scientific and Industrial Research (CSIR) Innovation award in September 2020. What started as a small activity by them became a big project and soon they started producing more than 5000 pots with the help of T-Works of Govt. of Telangana and began supplying them to the government nurseries around their town. Sreeja hopes to replace the plastic planters in her state first and then across India.

Harmless Farming

Narayanan A. Navaneetham

Modern agriculture that seeks to feed the increasing human population employs several methods to increase crop yield. This includes the use of synthetic fertilizers and pesticides. Unfortunately, this not only leads to health concerns in humans but also upsets the natural ecosystem.

The use of fertilizers, though beneficial to crops in the short term, damages the soil by modifying its natural pH, making it too acidic or alkaline. Running water can wash away fertilizers into water bodies causing algal bloom that adversely affects the aquatic environment for the life forms there. Pesticides can kill beneficial insects too along with harmful ones. Also, run off of these chemicals into water bodies can affect human water supplies. Also, the chemicals in fertilizers and pesticides get into the plant system and eventually find their way into animals and humans and can harm them.

The counter movement-organic farm practices- tries to mitigate this damage. Two farmers in the Thanjavur district of Tamil Nadu employ such non-intrusive methods to improve crop production.

Manoharan, a farmer and a former defence research engineer, in Kasangadu village of Thanjavur district turned to organic farming when he realized that the natural taste of farm produce like banana, jackfruit, mango, guava and gooseberry can be obtained only when he used organic fertilizers and insecticides.

He grows organic animal fodder crops like Aagaththi (a kind of edible green), Subabul grass, Napier grass, soya 29 and the protein- and pmicronutrient-rich Azolla. He feeds his cattle and goats with these and in turn uses the animal waste as a natural fertilizer for his orchard.
He says such manure is a balanced source of nutrition for the trees.

Manoharan maintains a fish pond for the purpose of using the fish waste sediments from the pond as nutrients in his farm. A fermented mixture of fish waste, sugar molasses and punnaakku (oilseed cake) is nutrient-rich. He employs beekeeping as a way to help improve pollination in plants and trees of the farm.

Instead of commercial pesticides, Manoharan uses neem oil spray and firewood ash, which are both effective in keeping the insects under control. As these natural pesticides do not interfere with the earthworms, they thrive too and enrich the soil more. Manoharan occasionally visits the agriculture university where he gets counter pests to keep the population of offending pests under control.

Navaneetham, a biologist and a coconut farmer in the neighbouring village of Mannankadu, is not afraid to experiment when it comes to farming practices. So when challenged with an infestation of Rhinoceros beetles (*Oryctes rhinoceros*) and Red Palm Weevil (*Rhynchophorus ferrugineus*) (which colonize the inaccessible parts of the tree and hence are hard to be destroyed directly and was seriously affecting his plantation yield), he tried the biological pest control method of employing pheromones to lure these pests into a trap.

Rhinoceros beetles

Red Palm Weevil

Pheromones are biochemical compounds produced by organisms including insects. In insects, pheromones serve as olfactory communication signals among individuals of the same species. It is useful for their communication and therefore successful colony life and reproduction.

Synthetic pheromones, also called molecular analogues, lure these insects are set in traps. Small plastic buckets are modified with insect entry windows to act as traps. Traps also hold a fermenting mixture of sugar and water. This fermentation gas also augments the pheromone's luring capacity.

The insects take the bait, assuming the lure bucket signals as signals from their own kind and enter the bucket, fall into the fermentation liquid and get trapped.

The advantage of this method is the coconut tree itself is not sprayed with any pesticide so the tender coconut (ilaneer) and the mature coconut (thengai) are fully 'organic'. Thus, only the offending pests are removed and no damage is done to the surrounding ecosystem.

Such insect management methods are effective only when all the farmers of a particular region cooperate to employ such pest ridding techniques. Otherwise, it does not take long for insects from other neighbouring farms to repopulate his farm, says Navaneetham.

Even as he got on board with him some other farmers to adopt his pheromone method, he realised the Rs.350 - Rs.400 cost of commercial traps puts off many. So he tried to improvise his own traps from plastic buckets while buying only the pheromone from its suppliers.

Pheromones when purchased in bulk, brings down the cost. This allows him to cut the cost by Rs.150 - Rs.200, making it more affordable to his fellow farmers. This will allow him, he hopes, to enlist more supporters for his organic pest management cause. This method of pest control may not entirely eradicate the pests, but sufficiently reduce the pest density to help sustain the organic approach in farming.

Small holding farmers, like the ones featured here, are eco warriors who are the change they want the world to see. Their methods are time consuming, labour intensive and sometimes even expensive. Yet they continue to do their own bit to help reduce land pollution and make the planet earth more habitable for all life forms including humans.

Fruit shells as cups; a zero-waste juice shop

Maitreyi Aravindan

In the present situation, many Juice bars provide the customers with the juice in plastic or paper cups. After the people drink the juice, they throw away the plastic/paper cups into the soil, hence polluting it.

A juice bar in Bangalore is trying to address this issue by stopping the use of paper or plastic cups for serving fruit juices in their shop. This juice bar has come with a novel idea of using the fruit itself as a serving jar for the juices. It all started with Mr. Anand Raj, the man behind the zero-waste juice bar, who quit his radio jockey job to take over his father's old juice shop.

Anand Raj restarted the juice shop in 2017 and named it Eat Raja. He wanted to reduce the usage of conventional juice cups made from paper and plastic. He thought they were not only an environmental hazard but also waste from his perspective as his customers would throw it into the dustbin and he had to dispose them off paying charges for it.

Juice served in a pinapple shell. Anand Raj in his Eat Raja juice shop (Right) Pic: https://eatraja.com/

So, he came up with the idea of a zero-waste initiative. He started using the fruit's skin or the base itself as the cup to serve the juice.

For example, he used a portion of watermelon cut to the shape of a cup to serve watermelon juice so that people can drink the juice and eat the fruit also.

"The discarded fruit shells are fed to animals, while citrus peels and other fruit scraps are used to make bio-enzymes, which in turn can be utilized to clean vessels and floors. These are eco-friendly as they are free of harmful chemicals," says Anand Raj.

Board at Eat Raja on Jan. 13, 2022
Photo:instagram/eat.raja

For people who request a straw, Anand Raj dishes out straws made of dried coconut leaves or bamboo. He says that he wants to make his idea a concept over the business.

According to Raja, the whole concept of his shop has three main takeaways.

a) Zero waste shop – There is literally no waste as the leftover fruit shells are fed to animals, healthy way of waste disposal

b) Save Water - Huge savings on the natural resource water. Had he used utensils, he would have the need to clean them with water. With the use of fruit shells, there is no wastage of water.

c) No chemicals - The citrus peels of the fruits are used for cleaning the vessels and floors and thus he does not use any chemicals such as detergents for washing vessels and floors.

He is able to help his bit on saving the environment.

The message is that if someone wants to solve problem, it only takes their passion and motivation to find an innovative solution.

Eat Raja has its outlets in 14th Cross, Malleshwaram, 4th Block, Jayanagar and VV Puram, Bangalore

Down Under in Northeast Monsoon

Narayanan A. Navaneetham

The northeast monsoon is no stranger to Chennai. This weather system that brings rains in the months of October- November is the city's major water supplier – it recharges the ground water and fills its reservoirs. The 2021 monsoon season has been a generous one so far – the city has received about 178cm of rain (2015 floods saw 253cm). The surprise was these normal seasonal rains caused several parts of the city to go under water.

SRP Colony in the Kolathur neighbourhood of north-west Chennai had a tough time battling its flooded streets. Flood water, in several instances mixed with sewage, entered homes. There are several reasons that contributed to this scenario.

Over the years, improper overlaying of roads has led to a rise in the level of roads, leaving the houses on their either sides at a lower level, restricting water runoff. Many little ponds in the area have been filled up to be reclaimed for construction of houses. One huge pond that served to absorb the water in the 2015 floods was beautified a couple of years ago with a walkway for morning walkers. Its capacity thus got reduced by forty percentage of its initial volume. Almost all houses in the area have their yards paved with concrete for easy maintenance. Even the roads of SRP Colony are not paved with tar, but are all rather concrete roads. As there is very little open ground for water to seep in and get absorbed by the soil, almost all the rainwater had to flow out onto the streets, thus flooding the entire neighbourhood.

Moreover, the natural land relief is such that rain water from adjacent areas like Villivakkam and GKM Colony enter SRP Colony and drain out towards Perambur. But the stormwater drains were already overloaded and could not manage all the excess water, leading to flooding of streets and houses.

In response to this flooding situation, the Chennai Corporation set up a total of 7 pumps at different parts of the neighbourhood to help drain the rainwater. While the Corporation provided logistical resources like machines and diesel necessary to run the operation, fire crew personnel from the Tamil Nadu Fire & Rescue Services handled the action, while the National Disaster Response Force (NDRF) ferried boats to rescue stranded residents and their pets.

Mr. T.S. Raghavan, a resident of SRP Colony, who is always at the forefront of issues in the residential area, flew in from Hyderabad where he was visiting when he read the sad accounts of residents' struggle in flooded houses on the colony's Whatsapp group. He took charge immediately, though he is no office-bearer of the residential association and did not hesitate to wade in knee-deep water to lend a hand to help coordinate the rescue and cleaning operations.

An expert committee of IITians has been constituted to come up with recommendations to help avoid another such flooding scenario in the area. Moreover, Mr. Raghavan says people who had blocked the inlet into the stormwater drains right outside their houses with bricks this time, in the mistaken belief of warding off mosquitoes as well as the stench coming out from these openings, are wiser now. Also, people have been made aware to report any unauthorized blockage activities.

While rains are essential for the community it behoves us to properly harvest rainwater to our benefit.

Rejuvenating trees and lakes in TamilNadu

T.H. REEMA VHARSHINI SAMY

Trees are a major part of the ecosystem. Trees are essential for sustenance of human life. We acquire oxygen and food from trees, the two of life's major components. From the very beginning, we have greatly depended on trees, and the dependence is largely increasing by the day. Our human needs are so high that we are cutting huge swaths forests for expansion of our land and fuel needs. Trees also provide valuable resources including medicines, raw materials, fuels, timber, shelter for most of the animals and birds and more. And that is why a lot of animals encroach into human territories when forests and trees are destroyed. Trees also have the ability to soak up the carbon dioxide and store it inside them.

The loss of trees and other vegetation can cause climate change, soil erosion, desertification, increase in greenhouse gases, flooding and global warming on a large scale. Deforestation also results in a drastic temperature variation from day to night.

The only solution to stop this issue is to plant more trees in places where trees were cut, in residential areas and in bare lands. Nizhal is such an organization, which works to save trees and plant more trees. Nizhal was formed by a few who felt a need for an organization to speak for trees. Their main idea was to bring about an awareness on the role of trees in our lives and on the need to plant it around us.

Nizhal has also been actively involved in various greening activities, and has conducted several tree walks, surveys and awareness sessions in schools and colleges.

Nizhal has facilitated the development of community tree parks in several locations in Chennai. Volunteers of the organisation actively participate in the upkeep of these parks. Around 200 saplings have been planted on the Tamil Nadu Veterinary and Animal Sciences University (TANUVAS) grounds in the Milk Colony, Madhavaram in Chennai.

The organization also initiated Green Prison Program and Healing Minds and Lands in November 2009 in Puzhal Central Prison, Chennai. This program has now spread across Tamil Nadu Central Prisons. In collaboration with local experts, prisoners are trained in organic farming techniques, gardening and horticulture in the prisons, and are given certificates.

Trees planted in Kotturpuram Tree Park in Chennai

Organic vegetables, fruits, millets, organic nutrients - 'panchakavyam', 'amirthakaraisal' and vermicompost are all sold under the ‘Freedom’ brand across the Freedom Bazaars. National Crime Records Bureau (NCRB) data shows that in 2014, Tamil Nadu prisons generated Rs.36.97 crore in gross earnings, the highest in India among all prisons.

Nizhal has shared best practices with Kerala and Maharashtra Prisons Departments, to catalyse similar programs in their States.

And The Palliyil Nizhal Program was initiated with the intention of "Catching Them Young". Various educational programs are underway in a few Corporation schools across the city to sensitize the students.

At the Thiruvanmiyur Chennai School, in partnership with the Rotary Club of Madras East., the whole school has been greened with the planting of various shade-giving indigenous tree saplings. A kitchen garden has been set up for growing vegetables which are used for the mid-day meal scheme. Bio Composting has been initiated for the kitchen waste. All these activities are primarily carried out by the students. For them, it is a hands-on learning experience which they will replicate in their neighbourhoods.

Nizhal engages with several Government Departments including PWD, Railways, Metro Water, Parks Division, HRNC, Horticultural Department, Prisons, Police Department, Veterinary University, High Court and Law college.

"We believe that it is for citizens in their own best interests to stand up for trees around them and care for them. Look at what each of you can do, and you can make a world of a difference!" says Shobha Menon, one of the founders of the organization Nizhal.

Shobha Menon, Founder Trustee, Nizhal

The crisis calls for educational help

Medha R

This pandemic has affected loads and loads of people including the aristocrats. Businesses have failed; many were evicted from homes and fired from jobs. Most importantly, many children were missing their building blocks of the future (education).

As warriors to help with this situation, a nonprofit organisation called OpenMentor decided to accomplish a revolution in e-learning. OpenMentor was formed in the year 2009 as a Corporate Social Responsibility Initiative of Softsmith Infotech Private Limited to cater to the online education and skilling of the student community in the country.

What is revolution in e-learning?

The aim of this trust is to promote and advance education in the country by continuous skilling. Abiding by the motto “The Whole World Can Learn for Free” they provide coaching classes for school children free of cost, demolishing the structure of paying tutoring fees.

What do they do?

They aim to provide good quality education to every rural village in Tamil Nadu using the technology in vogue.

Why revolution in e-learning?

There are countless students who cannot afford thousands of rupees for education. But with a little encouragement, that is with the help of conducting live and skeptical classes, they have been optimized to perform well.

The main aspect which makes OpenMentor different from other institutions is that it provides education exclusively for Samacheer Kalvi students. It conducts an hour of doubt clearing sessions a week.

To analyze the understanding of each student, MCQ tests are conducted on a regular basis. They teach in a theoretical way by using real-life applications to increase conceptualization and articulation on that topic.

Coaching classes conducted by OpenMentor teach all the chapters in a passive way juggling and balancing time perfectly. OpenMentor also conducts online courses in industry-relevant software skills besides providing recorded sessions and online exams for the students to practice and do self-valuation.

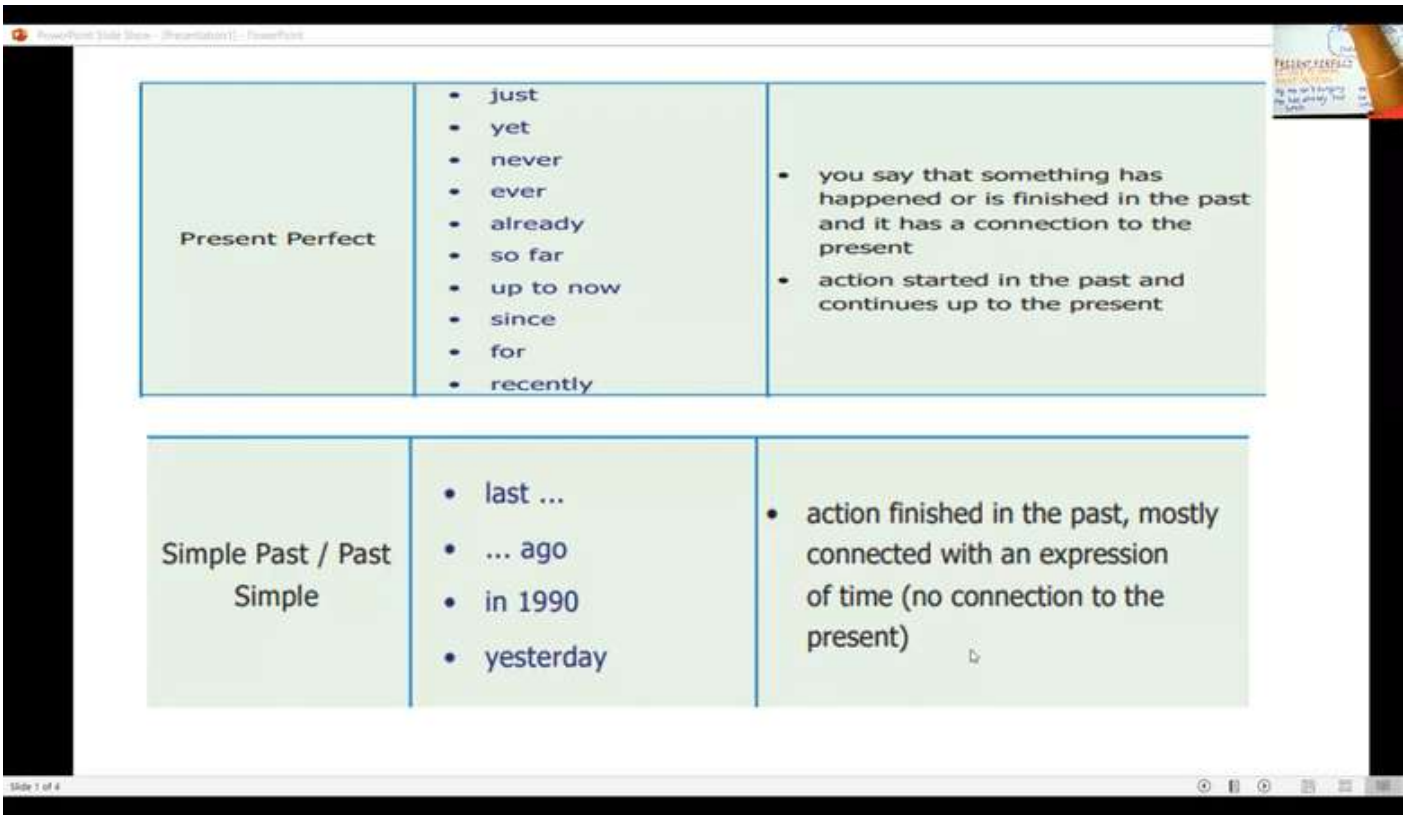
This wonderful initiative was started on the auspicious day of Vijayadasami in 2021. They have already reached 20k+ subscribers on their YouTube channel and have partnered with 5 to 6 schools.

Though they provide free online sessions, it is the role of the students to arrange for the mandatory requirements like smart phone, internet, etc. for attending classes. Since many cannot afford these amenities, philanthropic people can donate, help and support them.

The Tamil Nadu government is about to complete its launch of fiber net throughout the state. Using this facility in a good way, OpenMentor works to make education accessible. Their financial partner is IFEA (Investors Financial Education Academy).

“Government schools teach meticulously but some students need only a little encouragement to showcase their full potential. That encouragement is called tuition”, conveys Nagarajan Pichumani, Founder of OpenMentor and the Founder of Softsmith Infotech Private Limited, which provides quality enterprise solutions.

They accept donations and even a small contribution would be appreciated. For accessing the videos, here is the link to their YouTube channel- https://www.youtube.com/user/freeopenmentor



Sample of Free English lessons for Class 8 by the OpenMentor

Waste Management in Bengaluru - 2bin1bag

Daya lakshmi Mukundan

With the rise of industries in the 20th and 21st centuries and the resulting waste, the management and segregation of said waste have become increasingly important. This is true especially with non-biodegradable materials like plastic which threaten soil quality (and therefore agriculture) when dumped. With landfills overflowing, it has become apparent to most of us that waste cannot be simply thrown, and further actions must be taken to ensure that it is disposed of properly. The moniker 'Garden City' (for Bengaluru) has been abandoned by some residents for 'Garbage City' when speaking about this topic.

However, the community has been making strides in this field. On December 17th, 2015, the Karnataka High Court mandated the “2 bin, 1 bag” method of segregation in Bengaluru. 2bin1bag is a citizen-driven initiative. Solid Waste Management Round Table (SWMRT) is a citizen group that has led many waste management policies to change.

This way of segregation is being implemented in communities across the city.

This type of three-way segregation consists of:
Red bin - Reject/Sanitary waste
Green bin - Biodegradable waste
White bag - Recyclable waste

While researching about this system, I was curious about how it was mass-implemented after the government mandate. After speaking with Vedika Thimmaiah of the 2bin1bag team, I discovered that the method of communication has not changed much since the movement was launched.

Initially, the program was run only for citizens' usage; citizens were very active and spread the idea amongst their neighbourhoods. They talked to street food vendors and local shop owners, showing them alternatives to plastic. People spoke and shared ideas on a personal level.

Citizen-to-citizen communication is still largely the medium used, but the channel of spreading awareness has evolved along with the movement. It has evolved from citizens often going door to door to spread the initiative to learning programs for both children and adults. "Talking will always be part of the job."

I was also very interested in how wet waste and mixed waste were monitored and dealt with once received. It seems that the prominent approach is to stop the flouting of regulations at the source.

First, the government mandated that apartments with more than a certain number of residents should compost. Recently, they said that one can give the waste to a BBMP empanelled member.

The main problems that the system sought to solve were that people would take the waste and dump it recklessly, in which case it wouldn't be handled properly. Additionally, garden waste in large communities was hard to handle. Some people would come in large tractors, and they would dump it (fortunately) in their farmlands. Since this was an informal market, there was no established way to deal with the disposal and no standards on who took the waste and how much they were paid. This bothered people residing in apartments.

Some problems still exist. For example, medical waste started to become a challenge when the spread of COVID-19 rose; we still don't know how to treat sanitary waste. Also, many people do not segregate takeaway containers, and some of them are not even emptied. This attracts rats and other animals/insects, which is extremely unhygienic and sad for the people handling this waste.

Regarding wet waste, apartments have green committees and cities have some compost plants. The system is too big to be monitored at a large level, so nobody is overseeing wet waste for the entirety of the city. However, plant managers know which wards the waste comes from, and the contractors are also part of waste collection.

Mixed waste is addressed similarly. Citizen participation programs are common. There are also volunteers to represent wards, oversee the segregation of waste in that ward and educate people who mix waste about the proper measures to be taken. Again, education is done citizen-to-citizen.
Although people still do dump waste, especially in rural areas, the closing of landfills like the one in Mandur has made it harder to do so.

The uproar about proper waste management in Bengaluru was incited before 2015 by the dumping of waste in the Mandur landfill which made residents hold protests to direct attention to the groundwater contamination caused by it. People started to refuse the continuation of these things and opened their eyes to what was happening. It was driven purely by citizens and their concern for the city. People wanted to ensure that the collection of waste was easier and time didn't have to be spent to segregate.

"The goal was the decentralisation of waste management."

Photos: *Garbage Everest at Mavallipura*

Why is waste divided into three categories?
This is the most preliminary level of segregation needed to ensure maximum resource recovery, i.e. to compost wet waste and recycle dry waste. Many places have divided waste into two categories; wet and dry. “Japan has multiple (categories), but we’re not there yet. There, it is sorted into different types within materials; single-use plastic, double-layer, etc.”

Why should you follow the 2bin1bag method of segregation?
Firstly, it’s a simple system. The colour coding is easy to understand for both the collector and those segregating, and easy to teach household help, children, residents, etc. The colour code is consistent across the city. Also, since segregation has become more prominent, groundwater quality has improved and certain areas in Bengaluru have become livable again. It also makes the lives and jobs of waste collectors easier and is better for the environment. The clear distinction between reject waste and recyclable waste is important and is not present in wet-dry systems.

Are there other methods of three-way segregation?
Yes. Another common method is the 3 bins method, in which the white bag (for recyclable waste) is replaced by a blue bin. However, this has a shortcoming. While the bag can accommodate items of different shapes and sizes, bins cannot do the same. The examples usually given are pizza boxes and bottles, which are harder to fit in bins, and leave enough space for other items when in a bag.

During the pandemic, was the supply chain of bins and bags barred?
No. The supply chain was not particularly hit by COVID. This is because they are not recurring costs; you do not have to keep buying the items since they are sturdy enough to last you for at least a few years.

How has 2bin1bag changed things?

Previously, mixed waste was a big problem. 2bin1bag has significantly reduced this. A new category was brought in, other than wet and dry, and guidelines like wrapping sanitary napkins in newspaper and marking it with an X were introduced by this system. Little things like how to wash your dry waste and keep it clean, how to cut a milk packet in such a way that it can be recycled, etc. have been brought to public awareness through the popularisation of this system.

Photos: Garden City to Garbage City

More videos:

2bin1bag method explained

Child protection: Arunodhaya works at the key areas to eliminate child labour and educate them

T.H.REEMA VHARSHINI SAMY

The economic situation in India still keeps a lot of Indian families below the poverty line. Since many job opportunities are not being offered in the rural and inchoate areas, penury is being a predominant cause. In order to overcome poverty, parents cease their children's education and send them as child laborers or sell them to human traffickers or they move to big cities seeking jobs by just relinquishing their juveniles and adolescents.

Child labour results in sexual exploitation in girls and boys are exploited by armed forces. They are affected both mentally and physically. They are not being educated as they are not sent to any educational institution. All their basic fundamental rights are being snatched away. Their lives are threatened as might even be physically attacked or killed by human traffickers.

Although the Government of India passed the Child Labor (Prohibition and Regulation) Act in 1986, child labor is still prevalent in India. According t to UNICEF's data from Census 2011, the number of child laborers in India is 10.1 million of which 5.6 million are boys and 4.5 million are girls. A total of 152 million children, out of which 64 million girls and 88 million boys – are estimated to be in child labor globally, accounting for almost one in ten of all children worldwide.

Trafficked children are subjected to prostitution, forced into marriage or illegally adopted; they provide cheap or unpaid labor, are forced to work as house servants or beggars and may be recruited into armed groups. Trafficking exposes children to violence, sexual abuse and HIV infection.

Arunodhaya is a charitable trust which works to abolish child labor and make each and every child enjoy their basic fundamental rights with dignity and happiness. They analyse the root cause and root areas where child labor starts and works to abolish them

Arunodhaya is working in the root areas of child labour with the help of Railway Protection Force (RPF), Government Railway Police (GRP), auto and taxi drivers and the public

They are rallying for the safety of children, their education, and their future. They are focussing on child protection, child development, child participation, community empowerment, child labour centres, shelters for street children, railway childline, engagement with adolescence and counselling and health units. In the past 4 years 1,796 students were rescued and rehabilitated. In the last one year 468 children were rescued. A total of 6,162 children, who were rescued as child laborers, are now studying in 295 special schools in 15 districts of the State.

Awareness on safe and unsafe touch was organized in seven Primary schools bringing awareness among 1,253 students. They have reached out to 73 slum communities touching the lives of 21,000 families.

Virgil D'Sami, executive director, Arunodhaya

"**My strong wish is to see children as children, without being subjected to abuse and labour"**

- Virgil D'Sami, a child rights activist, Executive Director of Arunodhaya Centre for Street and Working Children.

Hungry? Eat your spoons and plates!

Sanjitha. S

Ever imagined eating the plate in which you just had your meal? Yes, you heard it right. Edible cutlery is now a reality. Attaware, a social entrepreneurship firm based in New Delhi, is manufacturing edible spoons, forks, beverage cups, bowls, plates and takeaway containers, all made from grains and jaggery. Thus, not only do they serve as excellent alternatives to plastic cutlery and paper plates, but they also provide us with rich nutrients necessary for a healthy life.

- How did the idea originate?

“It all started in the year 2013, on the day of Akshaya Tritiya” recalls Mr. Puneet Dutta, founder and director of Attaware. “I was crossing the Yamuna River in Mathura when I noticed a layer of white floating. On taking a closer look I realized those were thousands of Styrofoam plates floating in the river. It was all due to the feast which was usually offered on that auspicious day. Ironically, I was also there to offer a feast."

"There was a huge queue of people waiting to get their share, but I had no disposable plates to serve food. At that time, a Babaji stepped out from the line, folded three Puris, poured a little sabji on it, ate and left. That’s when the idea clicked in – why not make bowls which can be eaten after use?”

Hence the research to make good quality edible cutlery began. There were companies already manufacturing edible spoons and cups at that time. But those products were not able to sustain when they came in contact with anything hot. Mr. Puneet wanted to rectify this and produce a better, sturdy yet edible cups. After six long years of research, the goal was achieved and Attaware Edible Cutlery was finally introduced to the public in 2019.

- A peek into the Manufacturing Process

Attaware's magic ingredient is jaggery and their secret weapon is Vedic Science. "According to Vedic technology, the moisture within the grains, jaggery, etc. varies with the movement of the moon and sun. Our production method is based on this fact" explains Mr. Puneet.

The process begins with boiling sugarcane juice and adding grains such as wheat, bajra, jowar, etc. to get chunks of jaggery. This jaggery is then melted at a particular temperature which is based on the time of the day, season, climatic conditions and geographical location. The end result – cutleries that can withstand boiling liquids for five hours and sustain cold food items for months.

- Attributes that win bonus points

The fact that Attaware edible cutlery are 100% healthy with no chemicals, added preservatives or food colour definitely gives them a upper hand. By eating a single Attaware cup, one could obtain 10g of magnesium and 13g of proteins. “We can’t force people to eat a cup. Some would just not like the idea of eating the plates and cups in which they were served. Or some would be able to eat only half of the cup. In such cases, the cups could be eaten by any other animal without any harm. This is not true for the edible cutleries of other companies as they add maida, sugar, oil, emulsifiers, etc. which could be fatal to cows and fish” says Mr. Puneet. Furthermore, they are completely biodegradable and can easily disintegrate in a few months after use, if no other living being has eaten it.

A young girl eating Attaware cup

The cutleries can be eaten by all age groups right from toddlers to elderly people. The company also offers to slightly alter the hardness of the cutlery as per the request of the customers. Furthermore, these are microwavable and can also be refrigerated. Attaware has also launched nine different flavours in their edible glasses so that tea vendors could cater to different tastes and requests of their customers.

- Overcoming hurdles

When the products were first introduced, there was a huge demand for spoons, plates, glasses and bowls from various catering companies across the country. But with the breakout of Covid-19, the government implemented guidelines which restricted the number of people who can attend wedding ceremonies, parties, etc. This made the catering companies cancel their bulk orders. “The tea cups were our lifeline during the pandemic as the chai wallas were still in business. We managed to survive just by selling that single product” Whereas now, the company has recorded a sale of 9.5 lakhs of cups per week since the start of 2022.

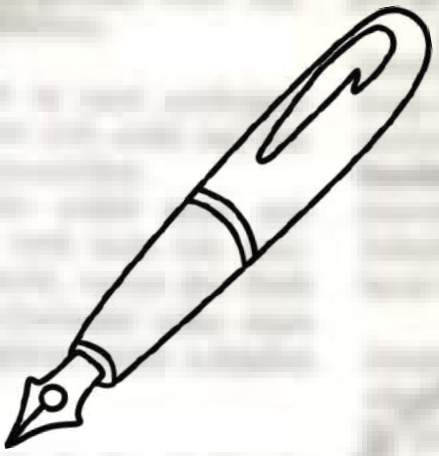
A tea vendor handing out tea in Attaware flavored cups

- Future Endeavors

Mr. Puneet Dutta enjoying his meal in Attaware cutlery

Attaware is looking forward to launch 39 more variety of flavors in cups. Single use, edible toothbrushes for animals are also in the pipeline and would be available in the market by the month of October this year. Attaware also has plans to join hands with an educational company which would teach school students to live a sustainable life.

Curious to try out these cutlery? Check out the Attaware Edible Cutlery Catalogue in WhatsApp wa.me/c/919871014728



Solutions Journalism: news reports that focus on the responses to social issues.

This eBook is a collection of Solutions Journalism reports by YOCee's teen journalists

YOCee .in
The newsroom of young people