



Ministry of Housing and Urban Affairs
Government of India



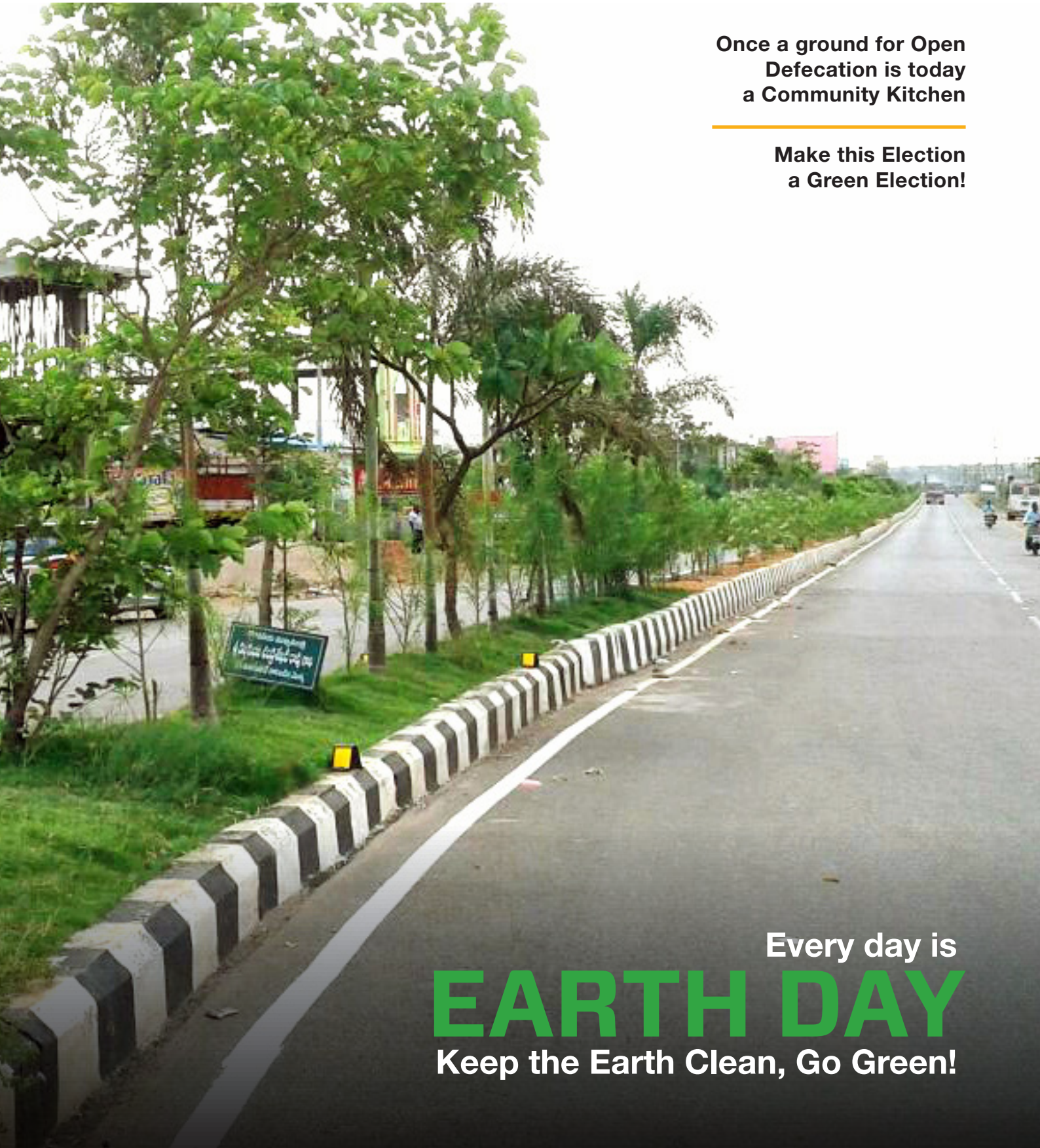
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SWACHHATA SANDESH

A monthly newsletter of the Ministry of Housing and Urban Affairs (MoHUA), Government of India

Once a ground for Open
Defecation is today
a Community Kitchen

Make this Election
a Green Election!



Every day is
EARTH DAY
Keep the Earth Clean, Go Green!



Editorial



It is a fact that the continued deterioration of the quality of life in urban India has underlined the need to create better environmental conditions and evolve a workable national strategy for sanitation and municipal solid waste management (MSWM). Indian cities are facing growing challenges of MSWM impacting the life of people. Realizing the challenges, the Government of India launched the Swachh Bharat Mission (SBM) with a goal to make a Swachh India. SBM (Urban) is a vision response to one of India's key urban challenges. MSWM is one of the most important components of the Mission. According to the Solid Waste Management Rules, 2016, the source segregation of waste has been mandated to channelize the waste to wealth by recovery, reuse and recycle. There is an extensive network of informal sector in the process of segregation of waste at disposal sites. Recycling of waste is the reprocessing of used materials that would become waste. It is mostly undertaken by waste pickers, itinerant waste buyers (Kabariwala), dealers and recycling units. However, the recycling industries face the problem of poor quality of recycled products, which are not compliant with the regulatory requirements. From the economic perspective, recycling pays only when additional cost of collecting materials, sorting them for recycling and finally recycling and marketing them is substantially recovered from value of the recycled product.

The present issue of Swachhata Sandesh for April, 2019 covers some important initiatives taken by cities and states relating to behavioural change, reuse and recycling of waste. In Tiruchirappalli, the

Tiruchirappalli City Corporation (TCC) has turned a ground once used for open defecation into a community kitchen which is fueled by kitchen and toilet waste. This is a wonderful example of an eco-friendly and self-sustainable model for waste management truly contributing to the making of a Swachh Trichy.

The National Mission for Clean Ganga was awarded the distinction of "Public Water Agency of the Year" by Global Water Intelligence at the Global Water Summit at the Natural History Museum in London on April 9, 2019. The Global Water Awards were presented at the Global Water Summit, the major business conference for the water industry worldwide. This award is a recognition of the collective efforts of all stakeholders across levels who are working tirelessly for the rejuvenation of the Ganga.

This newsletter brings news of such stories from different cities in India and showcases the progress of SBM (Urban), highlighting the champions and ambassadors of change. It also serves as a vehicle for promoting ground level practices and knowledge from those interested in making India clean and litter free.

The newsletter is available on the Mission website (<http://swachhbharaturban.gov.in>) and can be downloaded for further dissemination. The newsletter is an outcome of collective efforts made by states and cities. We thank them for their contribution and welcome suggestions for forthcoming issues.

Editorial Team, Swachh Bharat Mission

ONCE A GROUND FOR OPEN DEFECATION IS TODAY A COMMUNITY KITCHEN

A unique initiative by Tiruchirappalli City Corporation is making use of kitchen and toilet waste to fuel the community kitchen

Tiruchirappalli (also known as Tiruchi or Trichy), situated on the banks of the river Cauvery, is a major city in the south Indian state of Tamil Nadu. Historically a citadel of the early Cholas and later of the Pallavas, Trichy is a fine blend of tradition and modernity built around the Rock Fort. The city is a thriving commercial centre in Tamil Nadu and is famous for artificial diamonds, cigars, handloom cloth, glass bangles and wooden and clay toys. The city today is setting a new benchmark through an innovative model that brings together technology in sanitation and solid waste management to

light up a community kitchen. Let us go back to see how the idea of the community kitchen germinated and took shape.

The inspiration for setting up a community kitchen that would run on waste generated from kitchen and toilet waste first came from another town in Tamil Nadu by the name of Tambaram where Tambaram Municipality, back in 2013, had set up a bio-methanation plant to produce gas from sewage generated in a public toilet. Taking this idea step forward, Tiruchirappalli City Corporation (TCC), in 2016, decided to set up a bio-methanization cum community

toilet kitchen unit in Ward number 14 of Viragupettai, a former open firewood market and ground that was being used for open defecation. The simple model deserves praise for its innovative approach. The complex in which the bio-gas digester has been set up houses a Community Toilet unit that was built in 2001 by the Corporation and maintained by the Self Help Group, as part of its public hygiene campaign against open defecation as well as the Maduram Corporation School. The waste generated from both these toilet facilities along with the vegetable waste from the nearby Gandhi Market (around 250





Location	Viragupettai, East Boulevard Road, Tiruchirapalli
Capacity of Bio-digester	30 Cum
Energy produced per day	22 Cum
Size of Community Kitchen	715.54 sq.ft
Size of Bio-digester plant	1154.55 sq.ft
Date of Commissioning the Plant	February 2016
Daily waste processed in plant	Toilet waste from public and school toilet 250 kgs of vegetable waste from Gandhi Market
Cost of initial set-up	INR. 40 lakhs
O& M cost pf plant/ per month	INR. 33053.00 per /month
SHG members involved for main- taining public toilet and income	15 members with INR. 1700 per month
No. of beneficiaries using com- munity kitchen	25-30 low income families free of cost

Key Information on Bio-Gas Digester with Community Kitchen

kgs) finds its way to the complex thus resulting in the optimization of the bio-digester facility. This waste is directly fed into the bio-digester through underground drainage pipes. The result is a production of 22 cum of gas per day from the bio-methanization plant which has a total production capacity of 30 cum. The remaining slurry water is directed to a collection pond with water hyacinth and fish, while the

overflow is used as liquid manure for plants. The total cost for setting up the plant was INR. 40 lakhs while the operations and maintenance cost of running the facility is around INR. 33,000 per month which is borne by the Corporation.

This simple innovation is leading to far-reaching benefits for the community members. Every afternoon, around 25-30 families from the low-income areas of Viragupettai and Bharati Nagar are making use of this community kitchen to cook their meals free of cost. The kitchen is a boon to the women who were once forced to cook in the open using firewood. Not only has this significantly reduced their cooking time but also led to improved health and environmental outcomes owing to the elimination of firewood from the cooking process. This facility has also become a source of livelihood for the 15 SHG members who are maintaining the toilet facility. After usage by the community members, the excess gas is supplied to Amma Unavagam, the subsidized canteen run by the Municipal Corporation. It is noteworthy that the gas supply from this facility has led a decrease in the number of gas cylinders at the Anna Unavagam thus leading to a cost saving of around INR.90,000 per year for the Corporation.

Who could have imagined that a site that was once a spot for open defecation has today turned into a community kitchen churning out not just fresh food but also serving as a place where women meet and catch up with each other. This eco-friendly and self-sustainable model is another example of innovative waste management ultimately leading to a truly Swachh and Swasth India!

Compiled by Sreejita Basu, National PMU (SBM-U) with inputs from Tiruchirappalli City Corporation

MEET BINISH DESAI, THE RECYCLE MAN OF INDIA

“Nothing is useless in this world; what can be a waste to you is someone’s asset”



The journey of Dr. Binish Desai, the ‘Recycle Man of India’ began long ago when he was only 11 years old. One day, while in school, he got chewing-gum stuck to him. In an attempt to try to remove the gum with the help of paper, he realised the paper stuck to it and the mixture eventually hardened. Observant and curious by nature, this incident got him thinking as to what he could create with this eco-friendly substance. Thus was laid the foundation of his journey into the world of eco-innovations made out of waste.

Binish, after completing his high school education from the United States, returned to India with dreams of working towards a zero-waste economy and create products that would uplift lives of the weaker sections of society. Unfortunately, waste was considered a taboo in his conservative Gujarati family and therefore Binish’s idea hardly received any support from them. A paper mill in Valsad from where he procured his raw material, the

paper waste, turned out to be his first workstation. It was from here that Binish, after his college hours, worked single-handedly over a period of 11 months to build the 3000 eco-friendly P- bricks that were used for his first toilet building project in a nearby village.

After carrying out his first project, Binish started getting more work. Instead of having one mega-factory with fixed labour who would travel to various places and complete projects, he set up micro-factories in the rural villages he was building toilets and houses. Further, he hired the local men and women of those areas and taught them how to make these bricks thus providing them with a source of livelihood. He achieved this in a low-cost way, through an ecological social innovation.

After six years of hard work, Binish inaugurated his research lab, Eco-Eclectic Technologies in 2016 which has developed around 150+ eco-innovations out of waste till date. The most popular

are the P-bricks, paver blocks and vitrified tiles, the first in the world to be made out of complete waste. Binish further incorporated Eco Lights Studio, a waste home decor collection made completely out of waste. For his immense contribution in the area of waste management, Binish has been bestowed with several awards and titles such as the Forbes 30 under 30 (Asia – Social Entrepreneurship 2018), Rotary International Alumni Global Service Award for South Asia, Paul Harris Fellow and the JCI Valsad Nagarratna Special Citizen Award, amongst others.

Binish is working towards developing two plants that will create state-of-the art technology, to be exported to the world. The plant will run with no waste being produced. He has a vision 2020, where he wishes to see a lot more people initiate progress towards a zero-waste organisation.

*Inputs from SBM State
Mission Directorate, Gujarat
www.binishdesai.com*

MAKE THIS ELECTION A GREEN ELECTION!

Kerala Implements Green Protocol for Lok Sabha Elections

Kerala, the land of Gods, has always been known for celebrating its festivals in an eco-friendly manner. Continuing its commitment towards the Green Protocol, the Haritha Keralam Mission has publishing a handbook under their initiative - 'Green Protocol Practice: Queries & Replies' which is intended to help political parties, bureaucrats and the

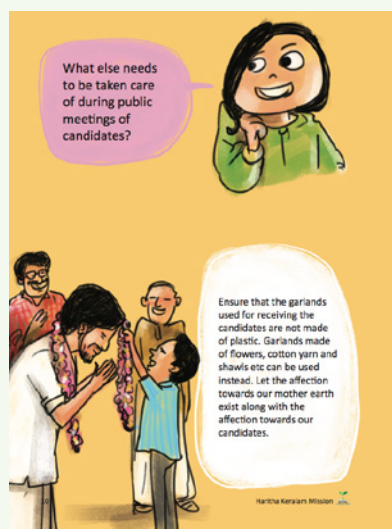
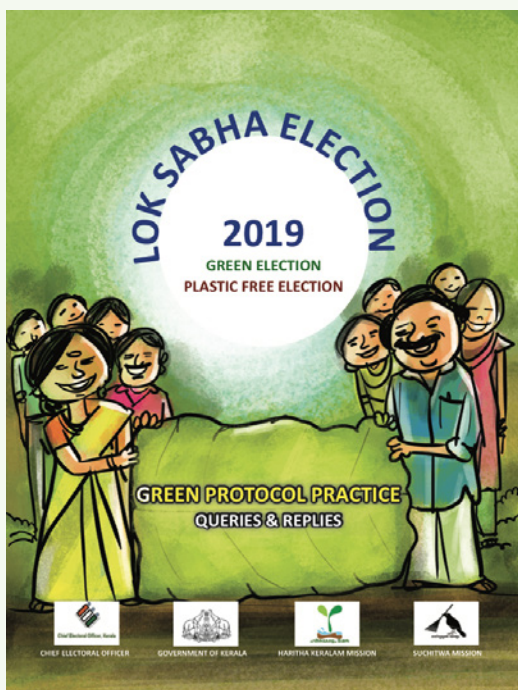
general public to clear their doubts in their green election journey.

The booklet, through a set of beautiful illustrations and easy-to-understand dialogues, elaborates on the do's and don'ts during the election campaign and presents eco-friendly alternatives during the campaign.

The district coordinators of Suchitwa Mission who are also

the district level coordinators of Swachh Bharat Mission have coordinated the facilitation units for the same up to the Municipal and Panchayat levels.

Kerala's initiative of ensuring a Green Election is sure to become a model for other states to replicate and follow.



Get your Organic Waste, Take Compost for Free

The West Zone of South Delhi Municipal Corporation (SDMC), in an effort to promote source segregation of waste at source and composting, began its campaign Geela Kuda Lao, Khaad Le Jao (Get your Organic Waste, Take Compost for Free) through which it distributed free of cost to residents interested in using it for the purpose of gardening. “This is the first time we have

completed the cycle of taking wet waste from residents, converting it into compost and giving it back to citizens for free. By this exercise, the total volume of garbage has been reduced by 70%, resulting in lesser burden at landfill site”, said Radha Krishnan, Director, Press and Information, SDMC.

After the success of the first cycle, SDMC plans to implement it in other localities.



Secretary MoHUA at the 3rd ISC-FICCI Awards and India Sanitation Coalition

Shri Durga Shanker Mishra, Secretary, MoHUA, Government of India addressed the gathering at the 3rd ISC-FICCI Awards and India Sanitation Coalition on April 24, 2019. Apart from touching upon the progress of the Swachh Bharat Mission (Urban) in the last four years, Shri Mishra spoke about the Mission's commitment towards achieving holistic sanitation through the ODF+ and ODF++ protocols.



SBM (Urban) Congratulates National Mission for Clean Ganga!



The National Mission for Clean Ganga (NMCG) was awarded the distinction of “Public Water Agency of the Year” by Global Water Intelligence at the Global Water Summit at the Natural History Museum in London on April 9, 2019. The Global Water Awards are presented at the Global Water Summit, the major business conference for the water industry worldwide. This award is a recognition of the collective efforts of all stakeholders across levels who are working tirelessly for the rejuvenation of the Ganga, the lifeline of India.

SWACHHAGRAHIS ON SOCIAL MEDIA

Facebook

2,68,727

Twitter

1,59,158



Celebrating Navratri, the Swachh Way!



Cricket fans are Swachhata fans too!



Promising to protect Mother Earth, celebrating Earth Day every day!



Do you know what happens after you flush your toilet?

#Flush ke Baad

Check out the BBC Media Action Campaign on Flush ke Baad



SBM TOILETS ON GOOGLE MAPS



1400+

City Live on Google Maps



42,000+

Toilets Live on Maps

SWACHHATA APP



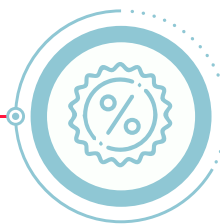
1.5 Crore+

Total Users



1.7 Crore+

Total Complaints



>90%

Resolution Percentage

1969: A SWACHH BHARAT MISSION (URBAN) HELPLINE



more than 4.68 lakh + calls

answered with an average handling time of **1 minute 30 seconds.**

SWACHH MANCH



377

ULBs certified ODF+

**SBM ODF+ Protocol focuses on the cleanliness and maintenance of community and public toilets*

167

ULBs certified ODF++

***SBM ODF++ Protocol focuses on the entire sanitation value chain including safe and complete faecal sludge and septage management*

OPEN DEFECATION FREE (ODF) UPDATE

4,378

ULBs as on date

4,155

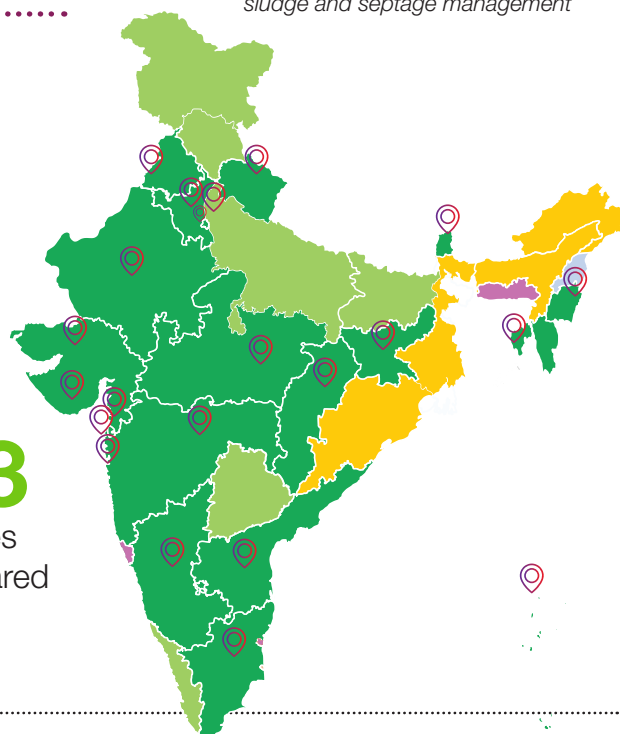
ULBs declared ODF

3,587

ULBs certified ODF

23

States declared ODF





International

A PATH TO ZERO WASTE IN SAN FRANCISCO, UNITED STATES

In 2002, San Francisco announced a vision to send zero waste to landfills by 2020. Through initiatives to promote recycling and composting, San Francisco is now one of the greenest cities in North America and a global leader in waste management (Economist Intelligence Unit 2011).

San Francisco's success has been achieved largely by robust public policy implemented by determined political leadership, strong public-private partnerships, resident education, and financial incentives for waste reduction. San Francisco was the first city in the United States to implement strict legislation about the use of or management of specific materials. The city prohibited the use of styrofoam and polystyrene foam in food service (2006), required mandatory recycling

for construction debris (2007), banned plastic bags in drugstores and supermarkets (2009), and implemented mandatory recycling and composting for both residents and businesses (2009). San Francisco most recently also banned the sale of plastic water bottles in 2014 (EPA 2017).

State-of-the-art outreach programs covering residences, businesses, schools, and events are widespread, and financial incentives encourage waste reduction and recycling. To help residents more clearly understand their waste disposal practices and financial impact, each house or building receives a detailed bill for waste management fees. Payments are reduced if residents shift their waste from mixed waste bins to ones designated for recycling or composting. Furthermore, the size of the provided mixed waste bins was halved and the size of recycling containers was doubled.

Waste bins are regularly inspected, and households that fail to comply with policies first receive warnings, followed by a financial penalty.

San Francisco also introduced the first and largest urban food waste composting collection program in the United States, covering both the commercial and residential sectors. San Francisco has collected more than a million tons of food waste, yard trimmings, and other compostable materials and turned these materials into compost for local farmers and wineries.

As a result of its efforts, San Francisco achieved nearly 80 percent waste diversion in 2012—the highest rate of any major city in the United States (EPA 2017).

Source: Kaza, Silpa, Lisa Yao, Perinaz Bhada-Tata, and Frank Van Woerden. 2018. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. Urban Development Series. Washington, DC: World Bank.



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EVERY DAY IS
**Earth
Day**

Keep the Earth Clean,
Go Green!

RECYCLE FOR LIFE CYCLE

- **Recycling can**

- Save gallons of water
- Save trees
- Reduce air pollution
- Reduce large landfill space