

To create a Zero-waste World through

World through
Circular Economy

Saahas Zero Waste

is a Social Enterprise that provides holistic WASTE MANAGEMENT SERVICES.

We work to bring about environmental & social impact based on the principles of Circular Economy and global commitment to Sustainable Development Goals (SDGs)*.





Our Solutions





The Climate Crisis: What Is 'Net Zero' and How Do We Get There?

As countries announce targets to reach net zero emissions, what are they actually talking about?

The world shifted its approach to the climate crisis in 2019.

- It was a summer of protests: from entire cities shut down by disruption, to Greta Thunberg leading millions of kids to strike from school.
- There was a crystallizing feeling of international solidarity and cultural consensus, that this was the moment that things had to change for good.

And in one specific way, it did. For the first time, the world began to hear a new phrase slowly creeping its way into the climate lexicon: "net zero."

Now, in a rush of green momentum, countries around the world are announcing targets to reach net zero.

It's one of the most common benchmarks that could measure the leadership of a government on dimate change — how it lays out its race to net zero emissions.

What Is Net Zero?



- Net zero essentially means contributing nothing to global warming. Such a
 goal suggests that a country would not put any more man-made carbon into
 the atmosphere for example through greenhouse gases created when
 fossil fuels are burned than it removes from it.
- This means that the total greenhouse gas emissions in the air would never increase. In practice, that means doing two things: we have to reduce emissions while also taking carbon out of the atmosphere.
- It is not carbon neutrality. Although that term also refers to bringing overall emissions level to nothing, it can commonly be achieved by offsetting the equivalent amount of carbon emissions reductions elsewhere. For example, a rich country could pay for its carbon budget to be offset by a developing



Three Things to Know About Net Zero

- We cannot stop the climate crisis without the planet transitioning to net zero, according to the Intergovernmental Panel on Climate Change (IPCC).
- The longer we take to hit net zero emissions, the more carbon dioxide (CO2) we'll need to take out of the atmosphere, known as "negative emissions."
- Net zero targets aren't enough. We need detailed road maps on how to get there and radical funding commitments to make it happen.





- Right now the planet is on course to blast past the rising temperatures that would make the climate crisis an irreversible ecological catastrophe.
- The Paris Agreement, adopted by 196 countries in December 2015, established an agreement that the world must limit global temperature rises to well below 2 degrees Celsius compared to pre-industrial levels, and preferably to no further than 1.5 degrees.
- That means a dramatic reduction in the levels of carbon released into the atmosphere through things like green transport, regulated agriculture, and clean energy.



How do we acheive Net Zero with Waste?

WASTE HIERARCHY



Approach to Material Recovery

•1.Segregation at Source

•2.Supply Chain

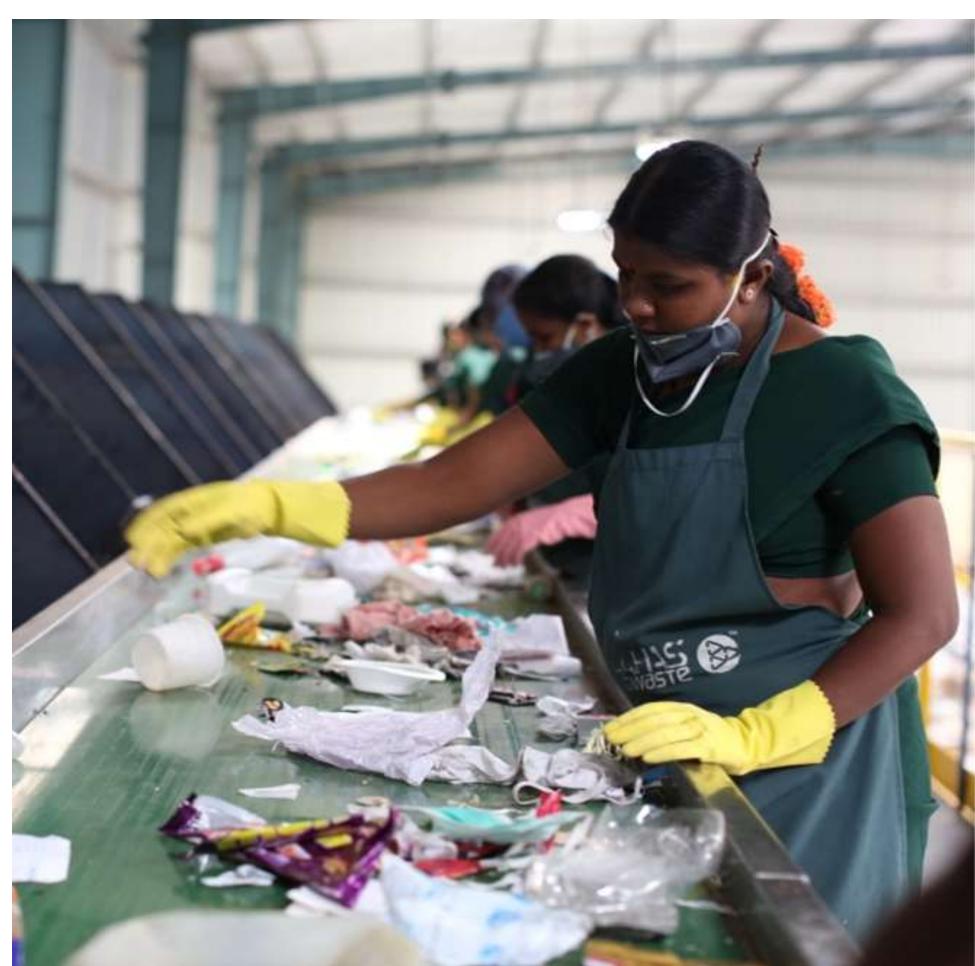
•3.Scale of operations

•4.Service Fees

•5.Sorting Efficiencies

•6.Social Inclusion





Key Levers to Execution



Segregation at Scale of Sorting Social Supply Chain Service Fees **Efficiencies Inclusion** operations Source **Product mix** •IEC Decentralised Bulk Consumers Integration **Varied Sources** •Technology-AI/ML Logistics Recyclers •Enforcement of law **Material Flow** •EPR Funds Formalisation Manufacturers

Resource Recovery In Action









SZW owned and operated **Material Recovery Facility** - a mechanized processing factory for **dry waste**







Offsite Operations

Technology Integration: Materials Recovery Facility (MRF)



Why MRF?



- ✓ Decentralised processing
- ✓ Traceability of material
- ✓ Improved manpower efficiency through mechanization
- ✓ Aggregation helps in better price realization (increased selling rate) of dry waste
- ✓ Supply to authorised end destinations
- ✓ Skilling the BOP, dignity of labour, established career in waste management industry
- ✓ Safe working conditions highest level of OH&S
- ✓ Hygienic work environment
- ✓ Employee welfareand social security
- ✓ Automated fleet management and scrap inventory management
- ✓ Reduce pilferages

Recycled Products



Tissue paper, Napkins and a wide range of Stationery products made from recycled paper.

Our Pencils are coloured with fruit dyes and come with seed bulb tips.



Each Recycled T-shirt is made from 12 plastic bottles



CustomizableSteel Bottles



Upcycled laptop bags made from waste fabric



Chipboard (Plywood) & Roofing sheets made entirely from discarded Tetra Pak





RMZ Corp

Waste Management Case Study



CIRCULAR ECONOMY

Because Nature Knows No Waste











Project Brief

RMZ, a tech park developer and manager, envisioned becoming the first zero-waste tech park campus in India.

The team at Saahas Zero Waste led the design and execution process for a holistic, end-to-end waste management system to help them reach their goal.

The Front

20 million sq ft assets under management Beautiful and clean eco-campuses

180 Clients

Aggregators of citizens









Waste dumped unscientifically Lost resources

The Design Process

Sensing



Visioning



Prototyping



Scaling

Sensing



Visioning



Prototyping



Scaling



Segregation:

Waste generators were mixing waste at source.



Quantification:

RMZ did not know how much waste is generated on their campuses.



Storage:

RMZ had dedicated small rooms for waste storage and expected daily clearance of waste materials.



End Destination

:The majority of waste generated at RMZ was being dumped but no one was certain of the destination.



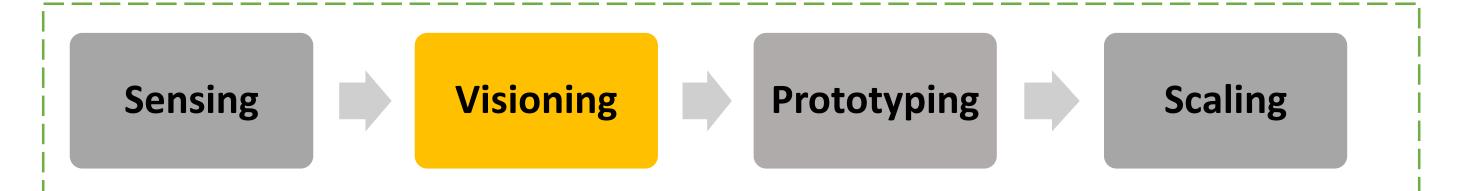
Leadership Priority:

Waste was a low priority for most stakeholders and the budget was Rs. 20,000 at each building.



employees
embraced the
idea of resource
recovery and
were willing to
dedicate
resources and
effort to
achieving the
status of zero
waste.

Champions: 3





Compliance

Is RMZ looking at WM as a compliance?

Holistic WM

Does RMZ see value in managing waste holistically?

1. Vision

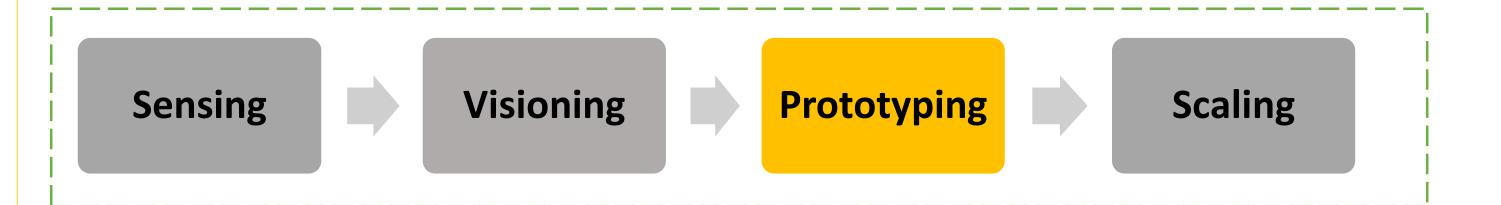
1. What is RMZs vision on WM?

Operational Excellence

Is RMZ comfortable with the status quo or looking at improving processes and technologies?

Impact

Is RMZ aligned to SDGs





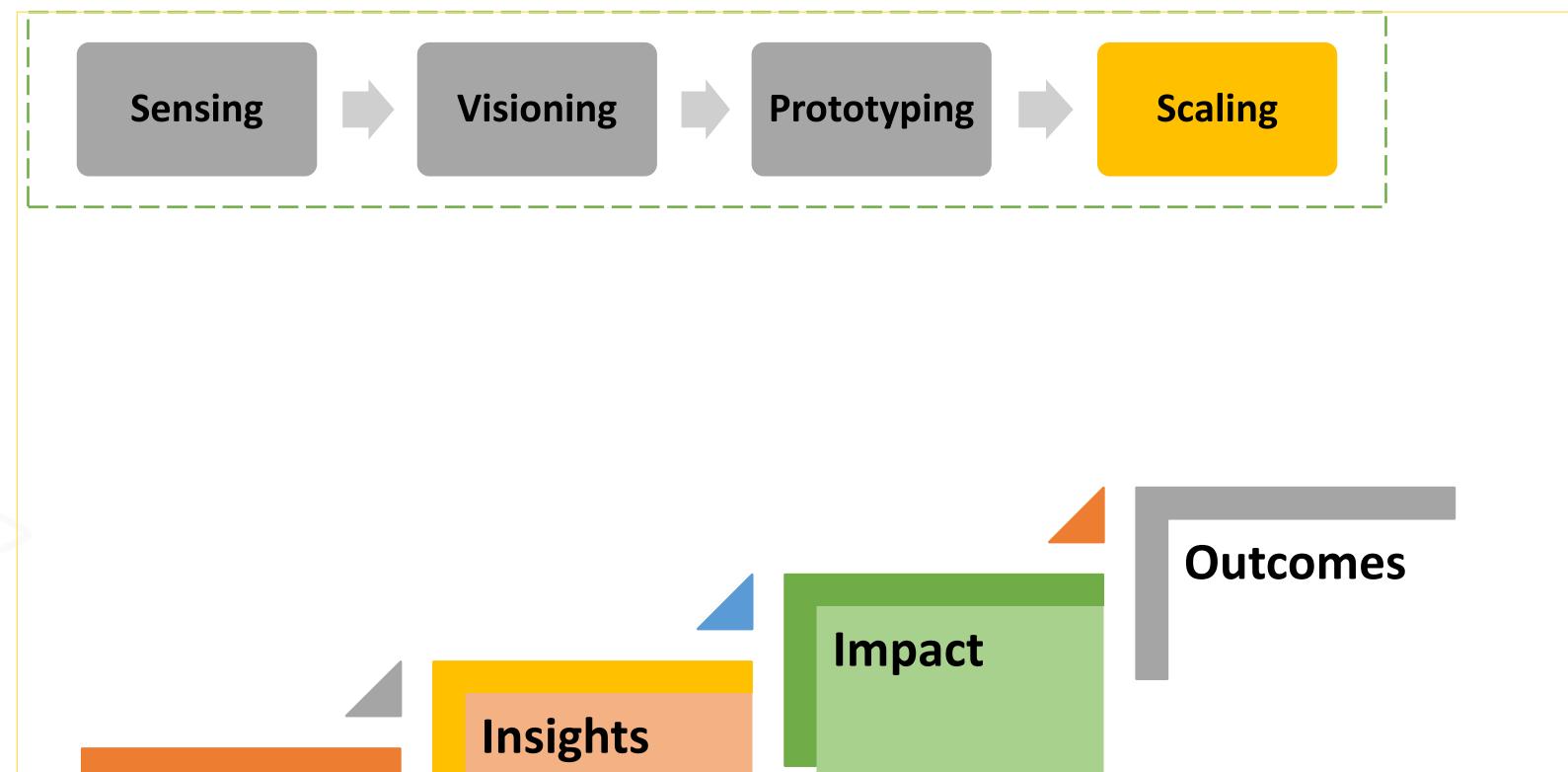


Infrastructure

People

Process

Data



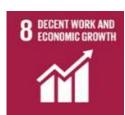
Road to

Zero Waste



















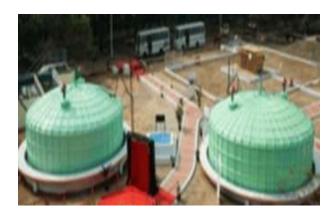
Infrastructure Challenges



Features



- 24 hrs composters
 across all properties
- Regular breakdowns
- Bad quality compost



- Part on-site composting, part-biogas
- Biogas is used as bio-diesel



- On-site biogas plant to be installed at the RMZ premises
- Biogas generated on-site will be piped to the kitchens

Key Outcomes



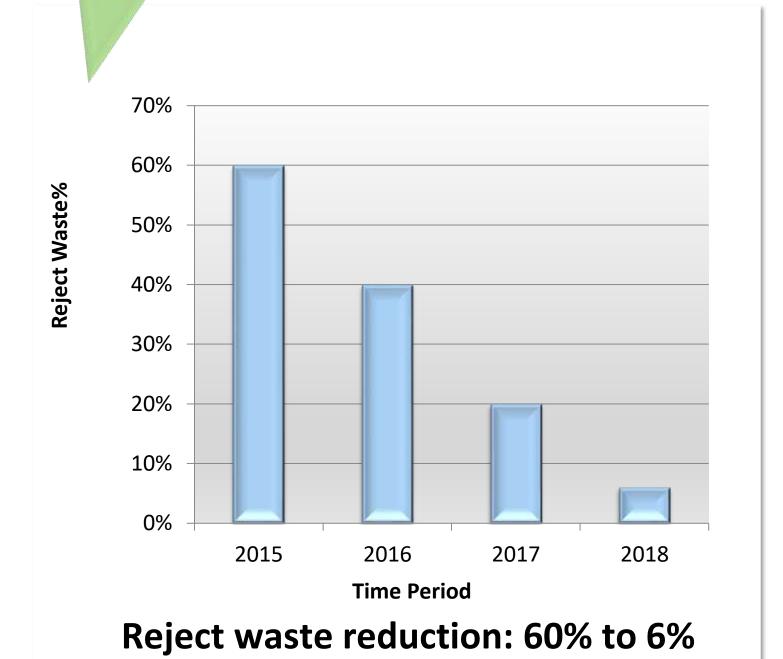
Replicated Model across all RMZ properties

RMZ Ecoworld certified 'TRUE Zero – Waste' in 2020

94% of the waste from RMZ, Bengalur is recovered

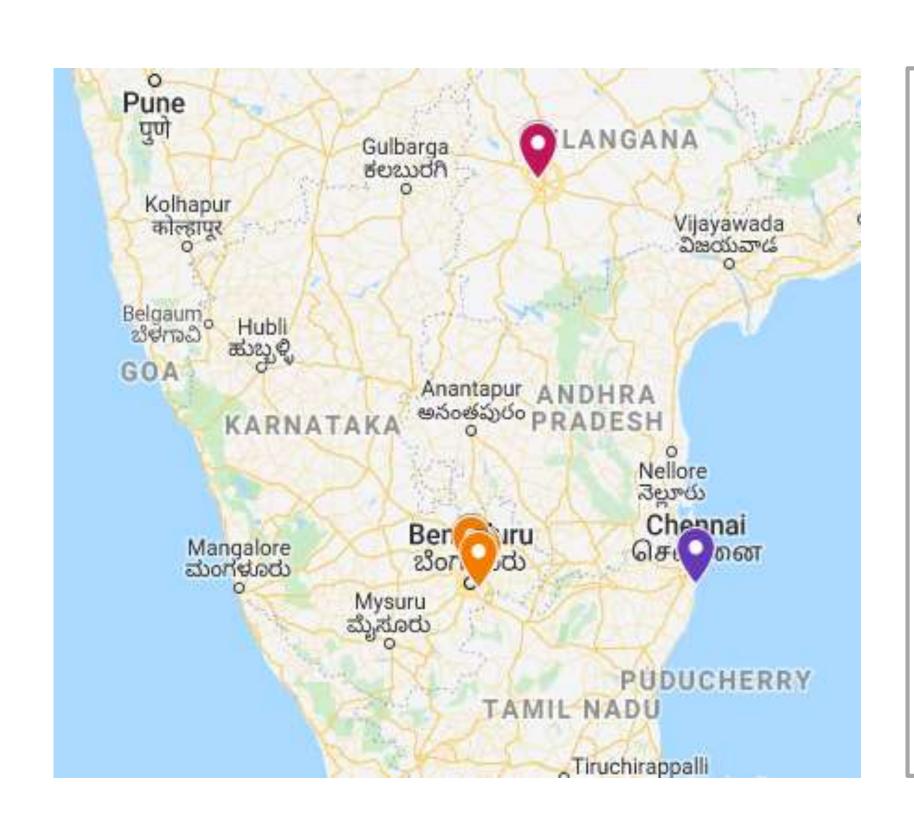
Reject waste reduced from 60% in 2015 to 6% in 2018

Regular feedback to corporate tenants helped improve waste management practices





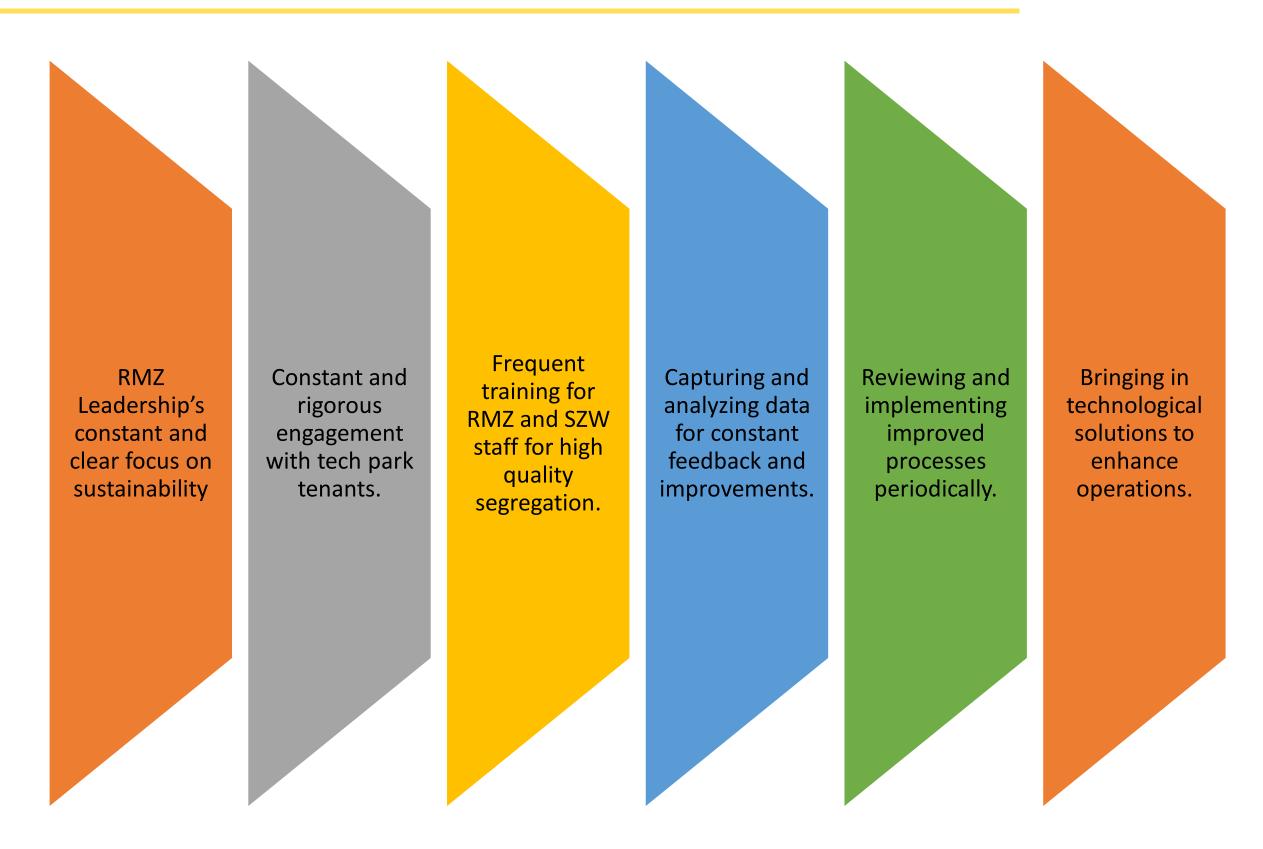


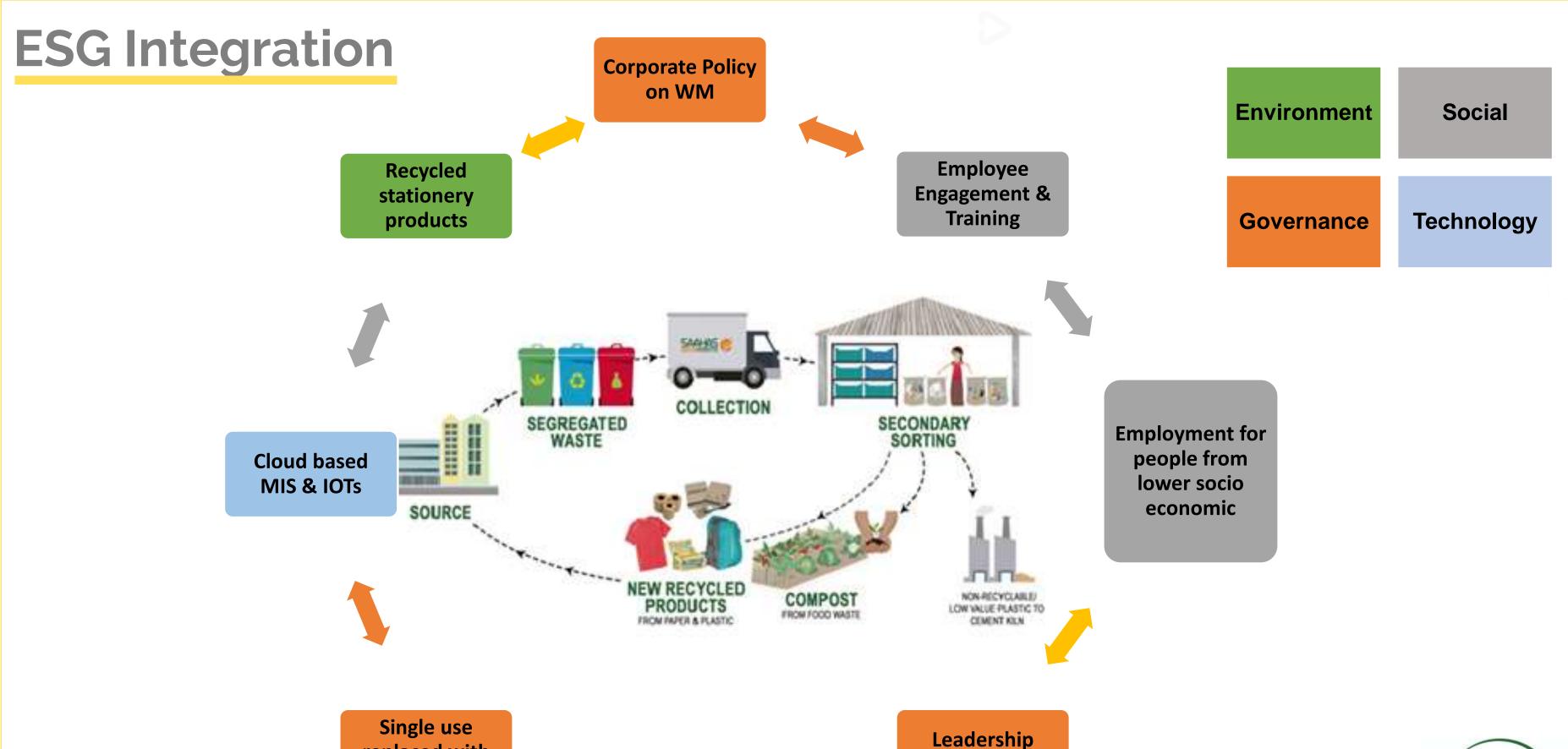


- 13 RMZ properties
- 3 cities
- 11 dry waste units; 9 wet waste units
- 10.9 tonnes/day of waste diverted from landfill









Review



replaced with

reusables



Environmental Impact

10.9 tonnes of waste diverted from landfills every day

869 tonnes CO2 emissions averted every month

31 trees saved every year via recycling of paper







SDG Impact









Social Impact

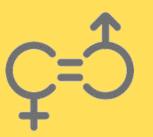
45 people employed from lower socio-economic groups

Formalization of waste management & inclusion of informal workers

Gender equality & equal growth opportunities



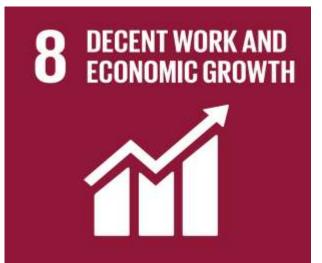




SDG Impact







TRUE Certification: Total Resource Use and Efficiency



The TRUE certification program measures, improves and recognizes zero waste performance by encouraging the adoption of sustainable resource management and waste reduction practices that contribute to positive environmental, health and economic outcomes. A TRUE-certified project's goal is to divert all solid waste from the landfill, incineration (waste-to-energy) and the environment.

TRUE is administered by Green Business Certification Inc. (GBCI), the premier organization independently recognizing excellence in green business industry performance and practice globally

OBJECTIVE

- To develop a zero waste economy for all that delivers financial, environmental and social benefits
- Closing the loop to become more resource efficient (turning waste to savings), cutting greenhouse gases, create jobs and add more value to the organization
- To help set benchmarks, track performance, educate employees and deliver innovative solutions that move them closer to zero waste

Leadership Team



Wilma - Founder & CEO 20+ years exp in Waste Management



Shobha - COO 15+ years of corporate exp. & 8+ years with SZW.



Gopal - Business ConsultantEx-CEO WeP Solutions



Kannika - Accounts
20+ years of exp in
Finance and
Administration



Arun - Regional Director

11+ years of exp in

waste management



Tanuja - Products23+ years of corporate exp
in sales and project mgmt.



Nimmi - EHS

25+ years exp in Compliance
Quality & process mgmt



Sivakumar -Operations
22+ years exp in operations
& project management



Annie - Policy &
Regulatory Compliance
10+ years exp in
corporate law



Bhagyashree
Financial Analyst
7+ years exp in finance &
corporate taxation



The Team



250 permanent employee strong field team

Trained in waste management practices

Experienced in dealing with corporate clients



Concluding Remarks



Code Red

The landmark study detailed in IPCC assessment report 6 warns of increasingly extreme heatwaves, droughts and flooding, and a key temperature limit being broken in just over a decade.

The report "is a code red for humanity", says the UN chief.

But scientists say a big catastrophe can be avoided if the world acts fast.





Saahas Zero Waste Materials Recovery Facility - YouTube



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