



CORPORATE DECK

# This Planet Deserves Better



No Solid Waste. No Wasted Time. No Wasted Resources. No Wasted Energy.

**3R Management** 



### **ABOUT US**



### **OUR AIM IS TO ELIMINATE WASTE**

3R envisions a planet in harmony. Where every participant plays a role in ensuring their actions are accounted for by balances to ensure natural order of healing and growth. We will restore that balance to the world.

3R will deliver environment engineering solutions that bring a connected impact to the world – air, soil and water. We will rely on our unyielding passion, strong belief in science and technology and the goodness of individuals to deliver projects that make a tangible real world impact.



In a consumer driven world, the gatekeepers of waste, water, and land will struggle to keep pace with waste creation and its impact. We need a guiding framework to help them navigate these challenges



Instead of reinventing the wheel each time, we have to be able to share best practices and success stories across the world, with societies and innovation circuits.



Combine forces and core capabilities to solve unique challenges for ever-growing waste scenarios on land, water, and the air. A seemingly constant effort of the road to zero.

### WASTE SNAPSHOT



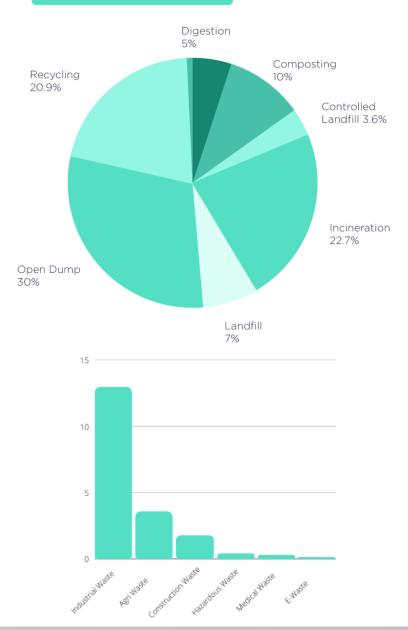


## 40% of our waste ends up in landfill

As nations prosper economically, waste is managed using more sustainable methods. Construction and use of landfills is commonly the first step toward sustainable waste management. Wealthier countries tend to put greater focus on materials recovery through recycling and composting.

Construction and demolition waste may compete with municipal solid waste for disposal space in landfills. In some countries, such as India, it is common to dispose of both in the same disposal facilities

#### **Waste Treatment Method In India**



### Rubber & Leather 2% Plastic 8% Paper & Cardboard 10% Food & Green 57% Other 15% Glass15%

**Globol Waste Composition** 

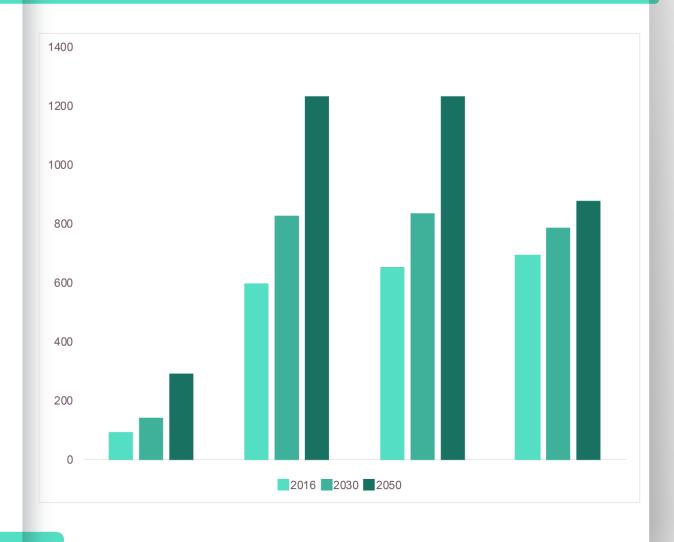
# Food Lost & Waste Accounts for the largest share of waste disposed

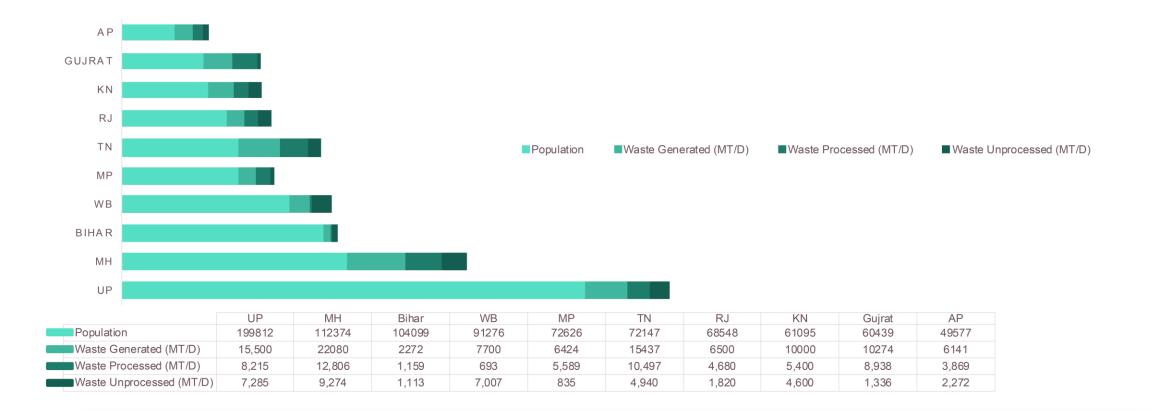
Waste composition is the categorization of types of materials in municipal solid waste. Waste composition is generally determined through a standard waste audit, in which samples of garbage are taken from generators or final disposal sites, sorted into predefined categories, and weighed.

No accurate estimates of the extent of FLW are available, but studies indicate that FLW is roughly **30** percent of all food globally **(FAO 2015)**. This amounts to **1.3 billion** tonnes per year

# By 2030, the world Will generate close to 2.59 Billion Tonne of Waste

High-income countries are expected to experience the least amount of waste generation growth by 2030, given that they have reached a point of economic development at which materials consumption is less linked to gross domestic product growth. Low-income countries are positioned for the greatest amount of growth in economic activity as well as population, and waste levels are expected to more than triple by 2050. At a per capita level, trends are similar in that the largest growth in waste generation is expected in low and middle-income countries





### 1. Lakh MT of waste Per Day is generated from the top 10 states in India.

Uttar Pradesh in India is estimated to have the largest untreated and unprocessed waste even with a low waste generated in comparison to the other Indian states. Gujarat, Andhra Pradesh and Madhya Pradesh over the years are building towards a sustainable model to treat waste and preventing them from entering the landfill.

# Municipal áreas in India generate 170,000 MT/Day

Accordingly, the expected waste quantity we are looking at for the year 2021, 2031, and 2050 are 101 mn metric tonnes per year, 164 mn metric tonnes, and 436 mn metric tonnes per year respectively. This will require significant land area to be put under landfilling. If the present scenario of waste management is considered, where most of the waste is dumped without treatment, we are actually looking at an estimated 88 square km (equivalent to the size of NDMC area) of precious land being brought under waste disposal through landfilling, which will eventually render the land unfit for any other use for as long as a half century before it can be stabilised for other uses. The following figure illustrates the comparatives for waste generation and land requirements.





# Municipal áreas in India generate 170,000 MT/Day

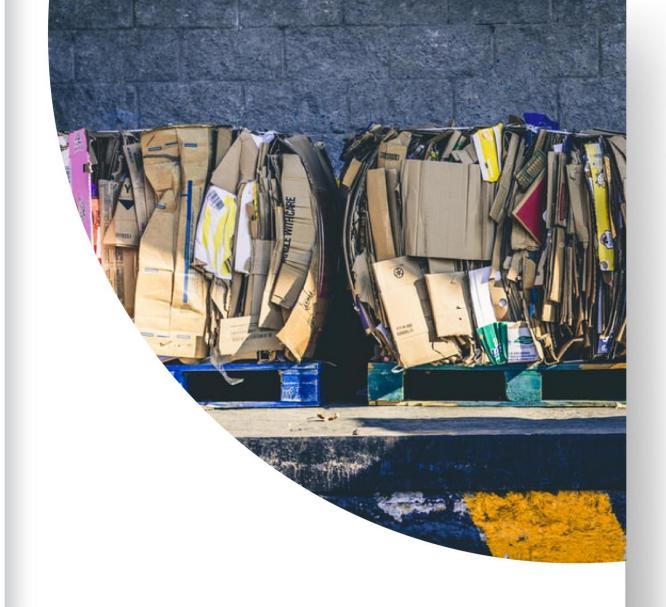
It is estimated a total investment of **3,359** million USD (20,153 crore INR) to meet the infrastructure demand in 2013-14 and private sector participation in almost all sectors of the MSWM value chain. The role of the private sector has been highly anticipated in waste processing and collection and transportation of waste, while the management of construction and demolition waste (C&D) and remediation of dump site and capping has been anticipated low. It is recommended that cities generating more than **300 TPD** of mixed waste can go for waste to energy option, while rest can opt for a mix of biological (composting/biomethanation) and physical separation (material recovery and production of RDF).

### **SOLUTIONS**

### **Integrated Waste Management**

At 3RM, we strongly believe that the resources of this planet are limited. With countries racing towards climbing the growth curve, we often forget the most elementary learning-"Rising Growth equals Rising Waste".

At 3RM, every year we collect, process, and market close to thousands of tons of recyclable. We are equipped to handle any kind of materials - from paper, steel, wood to construction waste. The possibilities are limitless.





### **Smart BioCNG**

We help interested organizations with organic waste digestion plants and new tunnel composting systems and processing technology.

We find solutions for your project, lower your cost, fine-tune your project leveraging 3R's expertise in supporting customers with their Bio-CNG projects.

We are bringing our core capability to power India's automobiles with renewable fuel from Biomass to Bio-CNG

### **Sorting and Segregation**

We understand that "Circular Economy" is just not a buzzword and is a strong business imperative for now and in the future. At 3RM, we partner with you to ensure that the material discarded every day should be utilized to its absolute maximum potential.

In today's age and technology, extraction, and repurposing of discarded materials have an assuring economic and ecological impact.





### **Waste Management 4.0**

#### **Route Hub**

Route Hub has been designed with a dynamic waste management model in mind. The app enables drivers to conduct their daily tasks quite efficiently and effectively.

#### **Eco-Smart Bin**

Eco-Smart Bin is a solar-powered touchless compactor, which can hold waste up to **800%** more than the conventional bins. This reduces the requirement for more bins and reduces collection frequency to the same extent.

### **Smart Waste Management**







### **Waste Transportation**and Collection

GPS Enabled Fleet & Route Mapping To enable infrastructure moderators with the power to plan and optimize waste pickup and collection

RFID & QR Code Tagging RFID reader provides contactless access to bin details and allows for pickup recording on cloud

Remote Access Monitoring WastePro helps monitor operations, planning and execution of waste management assets and infrastructure.

### **WHAT DIFFERENTIATES US**







Experience of Collection & Transport of **100** Tons per day for **3 years** 



Experience of Plant setup of **150** tons capacity for **3 years** 



Experience of constructing scientific landfill highest in the world at an altitude of **4000 m** in Leh/Ladakh



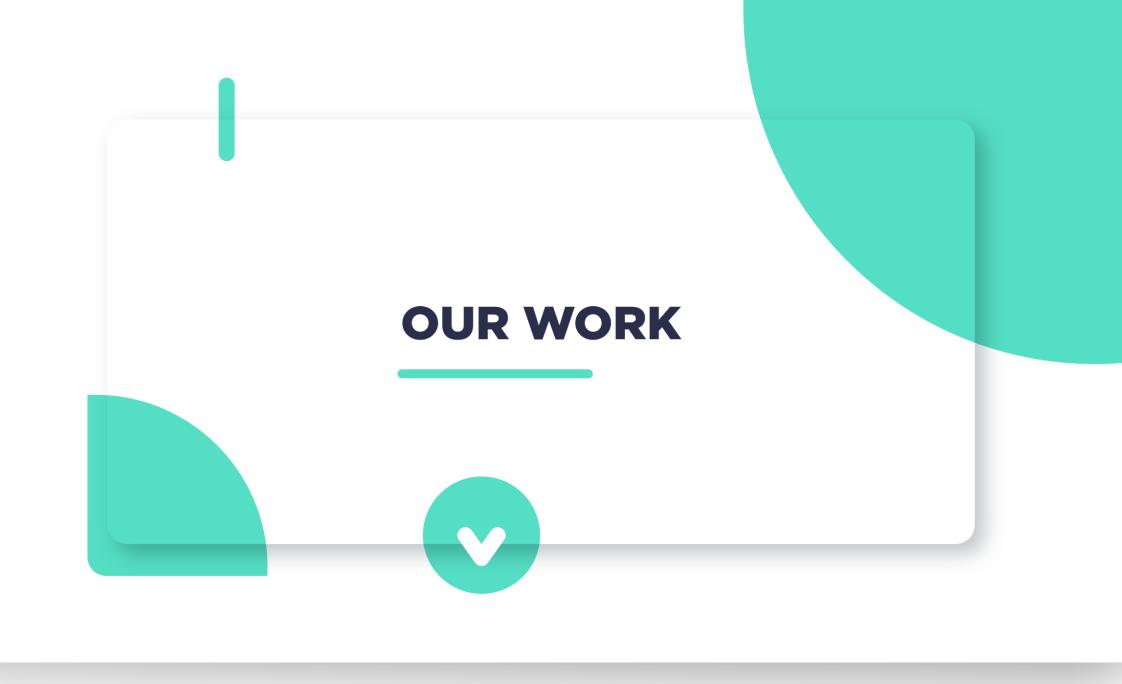
Sound associations and collaborations for consortiums for projects bigger capacity and scope projects



Channels setup for making consortiums with international technology companies and Project financing from international Banks at cheaper rates for specific type of projects



Strong liaising, networking & inroads to develop projects from scratch



# TESTIMONIAL The Right Partner

I liked the clarity and long term vision which established that it is not a fly by night association, we are convinced that we got the right people to work with.

- Omita Paul, Secretary to Former President of India, Pranab Mukherjee.

### THE 3R USP

### WHY WORK WITH US?

Long term PPP projects generally of **20 years** tenure provides territorial mandate on solid waste and ample opportunities to upsell other initiatives

Integrated projects provides experience of all components of SW management

Once project is awarded, the opportunity is blocked for 10 to 20 years

Repeat revenue from exiting clients for long term

Upselling opportunities in the territory for other waste stream and launching platform for D2C model



### **WORK SNAPSHOTS**

Decentralized projects in delhi NCR with likes of NDMC, CPWD, Rashtrapati Bhavan - built brand equity

Smaller capacity building leveraging decentralized experience through small capacity EPC projects

Mid size project at ULB level for longer tenure upto **20 years** spanning integrated waste management & other models

## **Integrated Solid Waste Management at Dadra and Nagar Haveli**

Operational within 01 year of agreement

Jumped from 283 to 84 position in Swachh Sarvekshan in Year 1

#### **Description**



Door to door collection, transport, processing and waste disposal at scientific landfill of solid municipal waste to the tune of 100 tons per day with provision of increment of 5% to 7% every year.



#### **Tenure**

20 years BOT model



#### Model

Public Private Partnership with provision of Grant from the central government under Swachh Bharat Abhiyan

# **Integrated Solid Waste Management at Leh, Ladakh**

Operates on solar energy

Also includes the world's highest altitude sanitary landfill at 3500 meters above sea level



#### **Description**

BOT of Solid waste management plant for 30 tons waste per day including 10 tons of organic waste



#### **Tenure**

Commissioned by Honorable Home Minister in October 2020



#### Model

Only solid waste processing plant known globally to have been built at an altitude of 3500 meters. Only solid waste processing plant completely based on renewable source of energy.

## **Integrated Solid Waste Management (Chas, Jharkhand)**



#### **Description**

Door to door collection, transport, processing and waste disposal at scientific landfill of solid municipal waste to the tune of 60 tons per day with provision of increment of 5% to 7% every year.



#### Model

Public Private Partnership with provision of Grant from the central government under Swachh Bharat Abhiyan



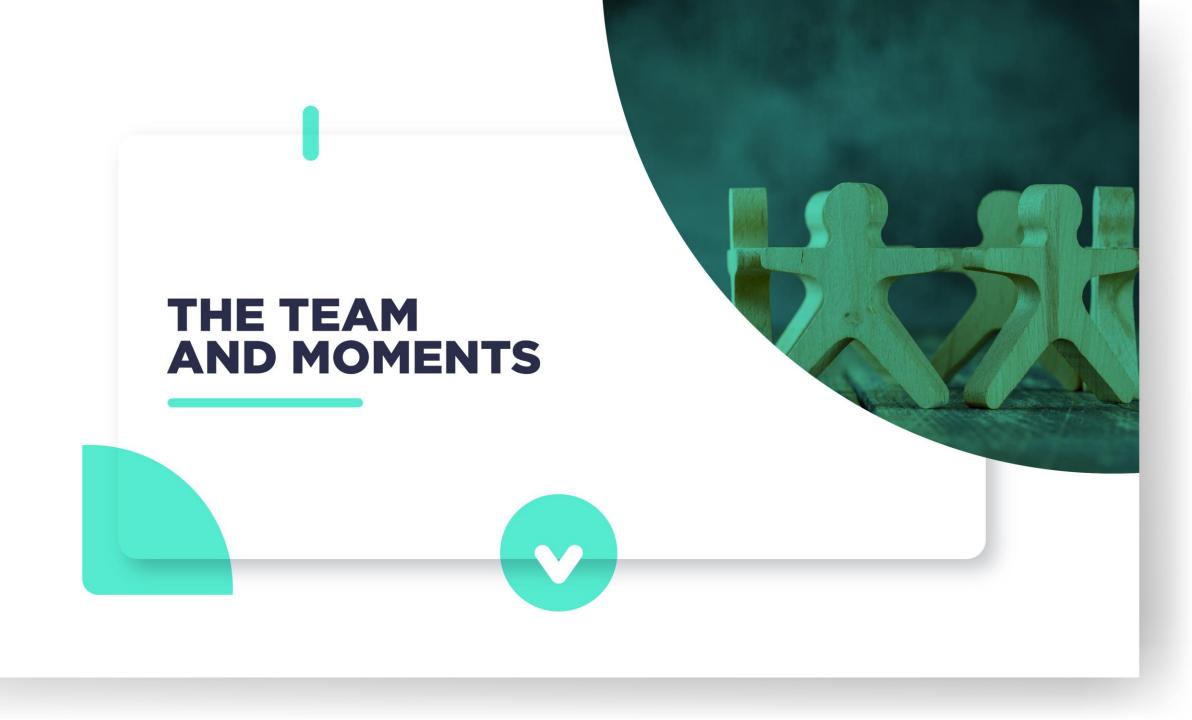
#### **Current state**

Project operational since June 2020 Collection & Transport is going on and the concessionaire DPR is under progress. The plant infrastructure work tentatively will begin by Nov2020

# Sanitary Landfill construction at Leh, Ladakh

Only Sanitary landfill known to have been built at such high altitude of 3500m

Project is being executed by 3R Management PL currently and will be finished by March 2021





CEO & CO-FOUNDER
PARAS ARORA

Paras believes in the extravagant power of collaborating and streamlining passions to make a difference. With a thorough pedigree in the waste management space, Paras leads 3RM's operations and expansion initiatives.

He admires the race of technologies and is keen to identify, prioritize and implement next-generation technologies that would shape the future of a clean ecosystem.



MD & CO-FOUNDER MANISH PATHAK

Manish is a solution addict that hunts problems to solve in the waste management space. He works with clients firsthand to lay out the plan for your waste management challenge.

He has received enormous recognition and accolades for his thought-leadership in the waste management space. He understands and empathizes with the puzzle clients are trying to solve and he fancies himself as the missing piece.



ADVISOR ON BOARD

Mrinal Sinha



DIRECTOR & HEAD
- PR & MARKETING

Manisha Sharma

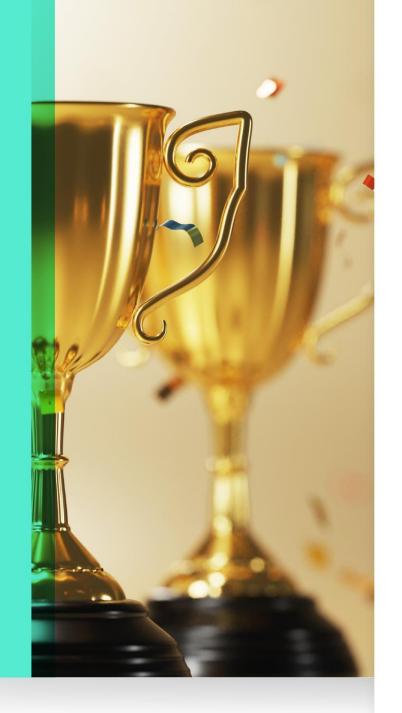


DIRECTOR &
ENGINEERING CHIEF
Dev Prakash Sharma



ADVISOR & CHIEF

Paritosh Sharma



# Proud Moments

#### **Awards and Recognition**

UN Foundation Award for excellence in the field of environment.

India Today **SafaiGiri Award** conferred by **Hon'ble UD Minister Mr. Nitin Gadkari** in the year 2019.

Publications in various journals and magazines

Hon'ble **Prime Minister Shri Narendra Modi on 19-Jan-2019 i**naugurated company's first Integrated Waste Management project at Dadra Nagar Haveli.

Hon'ble **UD Minister Venkaiah Naidu** inaugurated initial decentralized waste management plants in Delhi.

# WE BELIEVE, THERE IS NO PLANET B.

Let us work together for a tailor made solution for you.