



Bio Waste And Water  
Clean Solutions  
RESTORING  
THE BALANCE



KEYSTONE GREEN TECH  
POWERING A GREEN FUTURE

ISWMS THROUGH

**TORREFACTION**

FOR A CLEANER BHARAT

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# WHO ARE WE?

**An initiative  
dedicated to:**

**restoring water  
bodies**

**managing waste  
through sustainable,  
green technology**



**Our innovative  
solutions treat all  
types of liquid & solid  
waste:**

**providing employment  
opportunities**

**contributing to society's  
greater social & moral  
responsibility**



**Our mission is to:**

**create a positive impact  
by generating wealth  
from waste, while  
preserving the  
environment**



# OUR EXPERTISE

**MUNICIPAL  
SOLID  
WASTE  
MANAGEMENT**

**WATER  
TREATMENT  
PLANTS**

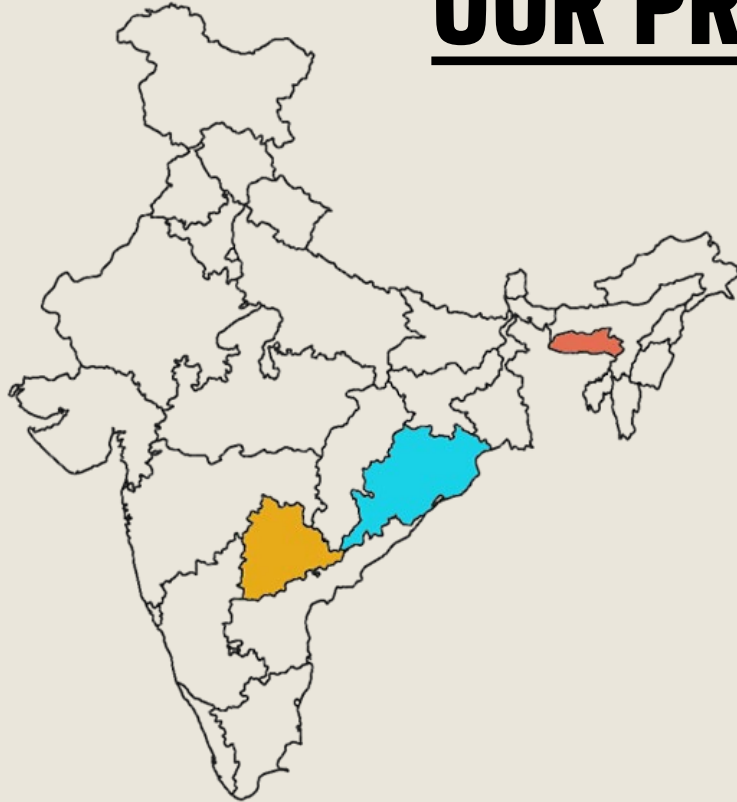
**TORREFACTION**



**IN-SITU  
BIOREMEDIATION**

**GASIFICATION  
BASED  
WASTE TO  
ELECTRICITY**

# OUR PRESENCE



## ANDHRA PRADESH

- **STP: 8 Projects**
- **FSTP: 18 Projects**
- **Bio-Mining: 3 Projects**

## TELANGANA

- **Bio-Mining: 20 Projects**
- **Torrefaction: 1 Project**
- **Public Toilet Sludge Liquefaction**

## ASSAM

- **ETP 3MLD**



# INDIA'S PAIN POINTS

India Generates About  
**70 Million**  
**Tonnes**  
Of MSW Annually





**25 %**

**25% Of  
MSW Is  
RDF**

**Only 50% of  
the waste  
undergoes  
treatment  
and the rest  
is landfilled**

**50 %**

**3184**

**3184 total  
dumpsites  
in India**

**NGT has imposed  
staggering fines,  
amounting to  
approximately Rs  
80,000 crore, on  
various states  
and Union  
territories for  
poor waste  
disposal methods**

**80,000 cr**

# The Solution – Torrefaction

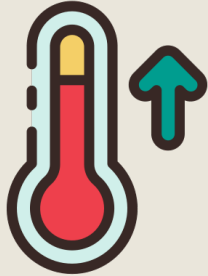


**Torrefaction** is a thermal treatment process that involves heating **RDF/MSW/AGRO WASTE/STP SLUDGE** materials (typically between 200°C to 350°C) in the absence of oxygen, to remove its moisture and volatile organic compounds and to increase its energy density. The result is a product known as "**Eco Green Coal**" which is a dry, brittle and carbon-rich product that can be used which holds a calorific value of **3500-4000 kcal/kg.**

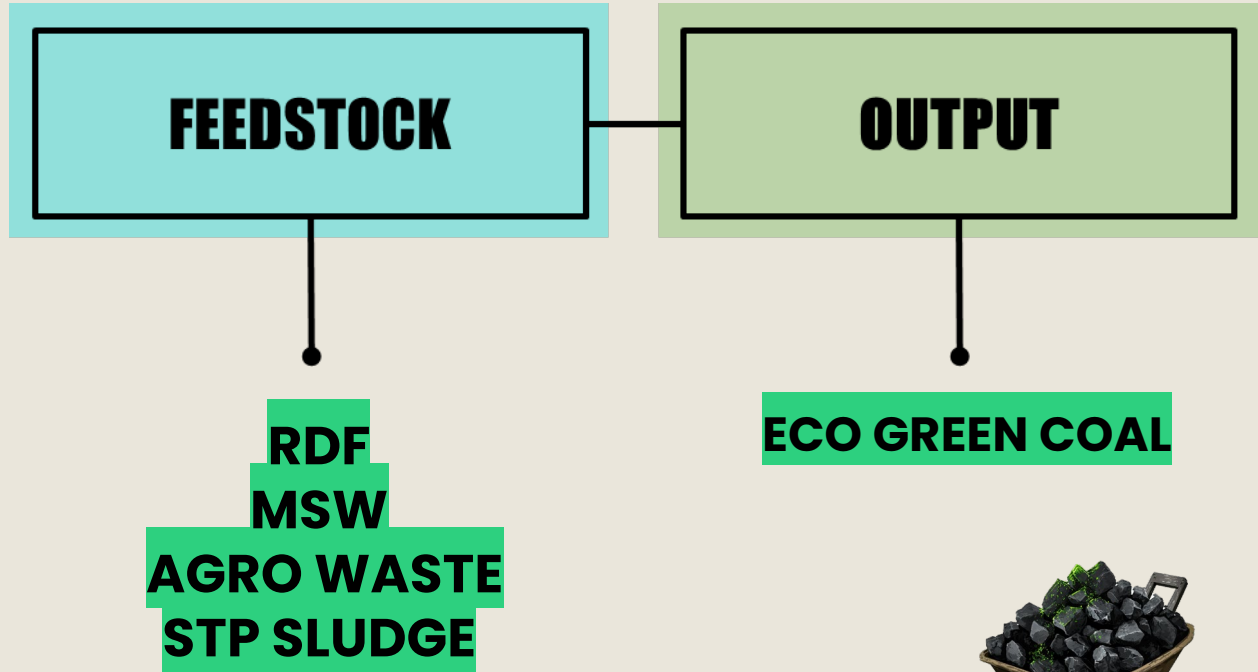




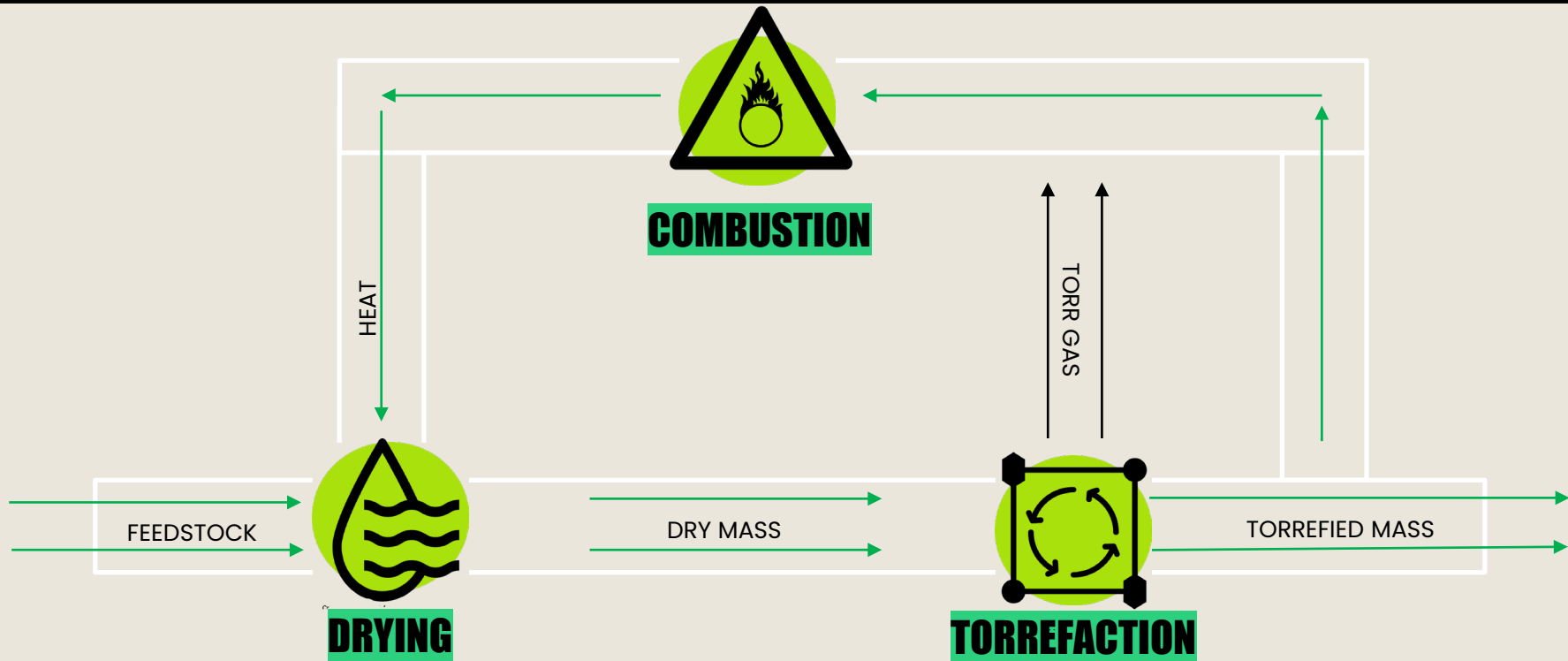
# The Solution – Torrefaction



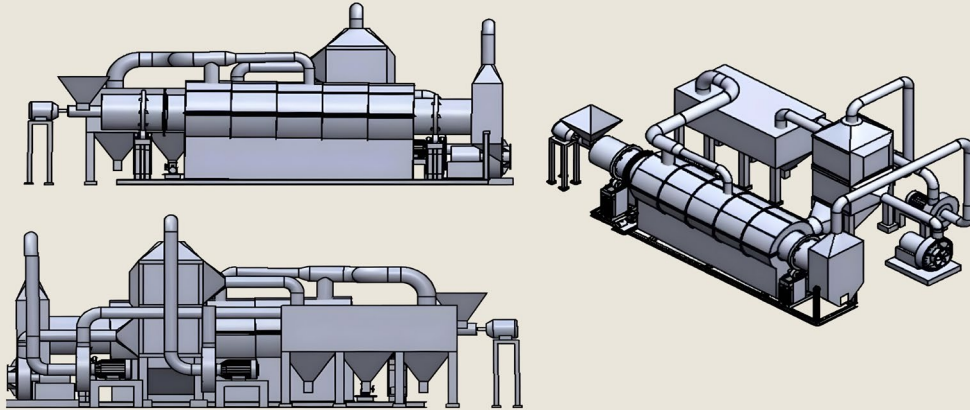
- Heating in the absence of oxygen 250 – 300 C
- Calorific value 3500 – 4000 Kcal/kg



# THE PROCESS



# THE UNIT – 100 TPD



**Installation: Dumpsite**



**Fuel Requirement: Nil**



**Cost Effective**



**Water: 2000 Ltr/day**



**Output: Up to 60%  
Eco Green Coal**



**Electricity: 100kw/h**



**24/7 Operations**

# BENEFITS



The calorific value (CV) of Eco Green Coal:

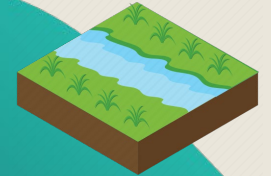
>4000 kcal/kg viz 4 Gcal/m<sup>3</sup>

**ENERGY  
DENSIFICATION**



The feedstock: RDF/MSW/AGRO WASTE/STP SLUDGE, can help eradicate the solid waste issue in India

**WASTE  
REDUCTION**



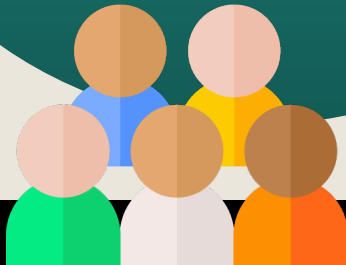
100 TPD plant can operate on just 2 acres of land

**LESSER LAND  
REQUIREMENT**



## EMPLOYMENT GENERATION

Establishment of  
Torrefaction plants will  
create employment,  
as the plant requires  
skilled & unskilled  
personnel



## CIRCULAR ECONOMY

Torrefaction reduces  
reliance on traditional  
fossil fuels, minimizes  
waste generation & fosters  
a sustainable & resource-  
efficient system



# THE CYCLE – LANDFILLS TO ECO GREEN COAL

From Landfills  
We Divert  
The Feedstock



1

The Feedstock Is  
Then Torrefied



2

Eco Green Coal  
Used For Industrial  
Purposes



4

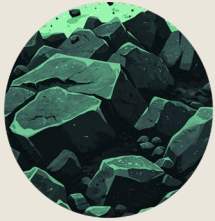
Output is  
Eco Green Coal



3



# WHY ECO GREEN COAL?



01.

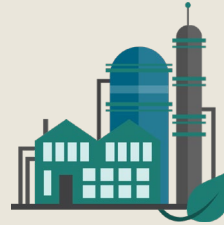
**Eco Green Coal**  
boasts a calorific value of  
up to **4000 kcal/kg**

Capability to transform  
RDF into **Eco Green Coal**

02.



Ideal for industries using **Boilers**,  
namely **Cement** Manufacturing &  
**Thermal** Power Plants



03.

Diversification of **Energy**  
Resources:  
Say Goodbye to Traditional  
Coal and Embrace a  
**Cleaner Future**

04.

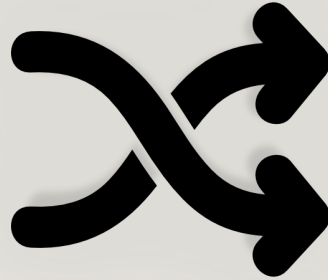


05.

**Land Reclamation**,  
committed to  
**UN SDG 15 (Life On Land)**



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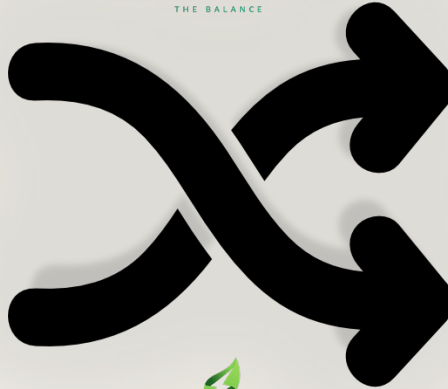


**WASTE TO WEALTH**





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**WASTE TO WEALTH**

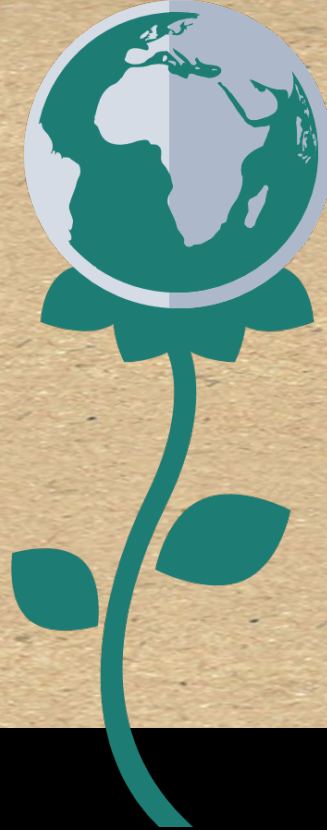
# OUR WARANGAL PLANT – 100 TPD



# CONCLUSION

Our solution offers a sustainable and **cost-effective** way to manage solid waste and RDF piles at the current dump sites.

By setting up our fully automated unit, you can obtain a valuable source of energy in the form of high-quality **Eco Green Coal**, with a calorific value of **3500–4000 Kcal/kg**.



This not only helps **reduce** environmental footprint, but also generates a valuable resource, with our innovative approach to **waste management**.

# THANK YOU!

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