



Waste Solutions for a Circular Economy in India

A NAMA Facility project

On behalf of

Supported by:

NAMA Facility



on the basis of a decision
by the German Bundestag



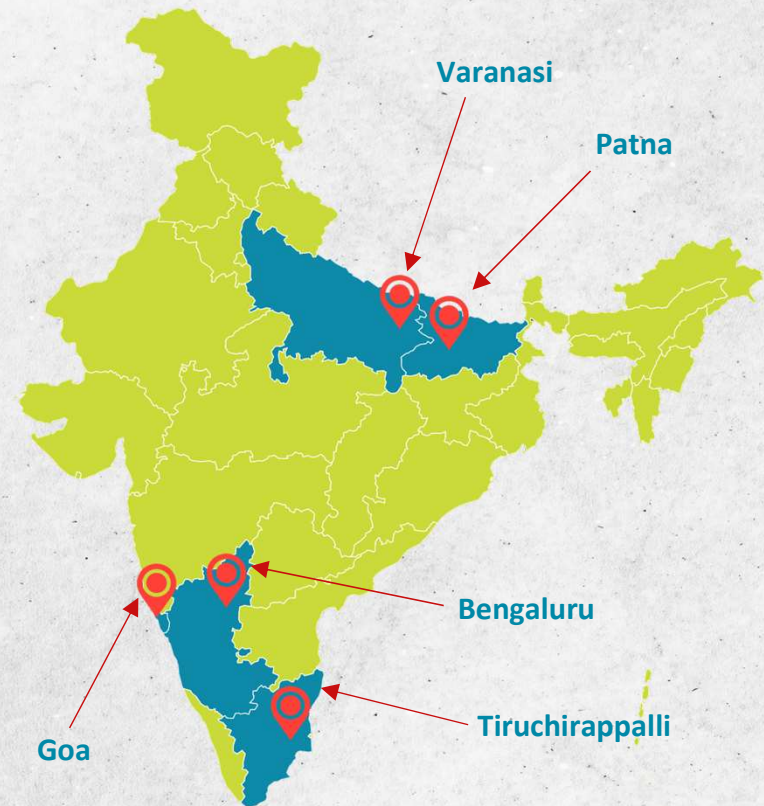
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Project Overview

- ❖ Duration: 09/2020 – 08/2025 (5 years)
- ❖ Support implementation and operations for processing 4500 TPD of Waste
- ❖ Emission Reduction of 1.2 Million Tonnes of CO₂e in five geographies
- ❖ Nodal Ministry: Ministry of Environment, Forest and Climate Change (MoEFCC)
- ❖ Implementation Partner Ministry: Ministry of Housing and Urban Affairs (MoHUA)

Project Locations



Project Objectives and Key Components

The NAMA Support Project aims at the low-carbon transformation of the Indian Waste Management Sector through the promotion of eco-friendly solutions like source segregation, home and community composting, bio methanation, Material Recovery Facility (MRF), recycling, and Refuse Derived Fuel (RDF) for use in cement kilns.

The Project works at three levels

Urban Local Body

- ❖ Grant and Technical Assistance for setting up Low-Carbon Waste Management facilities- MRFs, Composting, Bio-gas, RDF & Recycling.
- ❖ Source Segregation and Home Composting Awareness along with the development of models
- ❖ Informal Sector Integration
- ❖ Capacity building of ULB staff and other stakeholders

State and National Level

- ❖ Developing National Standards for Biomethanation and Recycling
- ❖ SOPs for Micro Composting Centre, etc.
- ❖ Onboarding Swachhata Knowledge Partners in selected states
- ❖ Technical Support Unit at MoHUA
- ❖ Sub-National EPR policy development and implementation

Risk Sharing Facility with SIDBI

- ❖ Partial debt guarantee for MSME Waste sector entrepreneurs
- ❖ 50 per cent debt guarantee for companies with up to 25 crore turnover
- ❖ 25 per cent debt guarantee for companies with above 25 crore turnover

Results from Project Geographies

Bengaluru	Goa	Patna	Trichy	Varanasi
120 Awareness Activities	158 Awareness Activities	1 Awareness Activity	108 Awareness Activities	132 Awareness Activities
Source segregation awareness to 55,000 HH	Source segregation awareness to 47,605 HH	Source segregation awareness to 4000 HH	Source segregation awareness to 7,300 HH	Source segregation and Home composting awareness to 102,566 HH
Indirect awareness to 9,83,276 people	17 shops: Shop With Your Waste Campaign	Indirect awareness to 150 people	Indirect awareness to 9,871 people	Indirect Awareness to 255,000 people
Informal waste worker training, formal waste staff training, and home composting training to 1398 people	Home Composting session at Goa Vidhan Sabha with 140 elected women representatives	Home composting training to 200 people	Formal waste staff training, and home composting training to 980 people	Submitted a DPR for an RDF line at the Karsada compost plant
80 informal workers formalised		Formal waste staff training to 25 people	DPR for decentralised 200 TPD MRF prepared and submitted to the ULB	22 informal workers formalised
Applied for a grant of EUR 1,043,736 for 1800 TPD composting facilities	Applied for a grant of EUR 683,140 for 61 TPD composting facilities		First Single-Use plastic free market was declared and an alternate-day collection system was piloted	Applied for a grant of 350,000 EUR to manage 1000 TPD municipal solid waste.

Photos from Project Geographies



Informal Waste Worker Consultation - Varanasi



RACE Campaign - Varanasi



Cheela Mela - Bengaluru



Shop With Your Waste - Goa



Public Awareness - Patna



Hon'ble Mayor addressing the audience during an event - Goa



Dry Waste Collection box for Schools - Varanasi



Micro Composting Centre supported in Trichy through Technical Assistance

Plans for Project Geographies in 2023

Bengaluru	Goa	Patna	Trichy	Varanasi
Technical Advisory of decentralized wet waste management through a Step by Step Wet Waste Manual	Comparative study of MSW activities in Goa with Indore	Community composting unit and a decentralized MRF in Kankarbagh	Four markets to be turned SUP free	Support for setting up 4 MRFs and a MLP Recycling facility
Source segregation and Composting awareness for citizens	Source segregation and Composting awareness for citizens	Source segregation and Composting awareness for citizens	Source segregation and Composting awareness for citizens	Source segregation and Composting awareness for citizens
Informal Workers Training for formalisation	Informal Workers Training for formalisation	Capacity building activities	Informal Workers Training for formalisation	Pilot community composting in selected wards
Training on setting up, operation and management of biomethanation plants	Technical Assistance to the state govt. in EPR policy formulation implementation	Decentralised biomethanation unit	Setting up a Zero Waste Learning centre	Capacity building activities
Capacity building activities	Capacity building activities	Replication of Shop with Your Waste Campaign	Replication of alternate day collection system	EPR Linkage for 4 recyclers
Disbursement of grant to the ULB for 6 processing facilities	Disbursement of grant to the ULB		Disbursement of grant to the ULB	Disbursement of grant to the ULB for Karsada Plant

Results at the National Level

Technical Assistance

- ❖ A study titled 'Dry Recyclable Value Chain' to help develop new incentive schemes and guidelines for promoting recycling.
- ❖ A study titled 'Development of inputs towards the formulation of guidelines for Bio-Methanation in India' is under implementation.
- ❖ Support to MoHUA for onboarding Swachhata Knowledge Partners in support States.
- ❖ Support to MoHUA by hiring consultants for its Technical Support Unit.
- ❖ Total of 60,745 tonnes of waste was diverted from landfill due to technical assistance in the cities.
- ❖ Total 220 temporary and regular livelihood opportunities created through NGO partners and facilities being supported by the project.
- ❖ Total of 1154 informal & formal waste workers benefitted from the distribution of safety equipment, PPE kits, gloves, masks, etc.
- ❖ Total 24,237 metric tonnes of CO₂e emissions reduction so far through the project's interventions.
- ❖ Supported MoHUA for Swachhotsav held in Delhi on 29 March 2023

Plan for the National Level Activities in 2023

Technical Assistance

- ❖ Techno-market analysis of MLP waste and recycling in India
- ❖ Development of Massive Open Online Courses on SWM.
- ❖ A low-carbon waste management workshop is planned
- ❖ SOP/Guidelines on MRF, Micro Composting Centres and Biomethanation
- ❖ Replication of low-carbon waste management solutions from the project geographies in 5 additional geographies
- ❖ Study on waste as an industry to analyse the impact on private players, informal waste workers and women
- ❖ Training programme on GEM portal registration for small entrepreneurs
- ❖ Supporting capacity building on low-carbon waste management of five Swachhata Knowledge Partners recognised by MoHUA

Risk Sharing Facility (RSF)

The objective of the RSF is to provide partial debt guarantees to waste management companies implementing low-carbon waste management solutions.

The RSF's budget is EUR 4.19 Million which includes corpus amount of EUR 3.8 million with 3% management fee above it.

- Partial credit guarantees of upto 25% to loans from commercial banks and NBFCs to large waste management companies which have annual turnover greater than INR 25 Crores (> EUR 3.1 Million).
- Partial credit guarantees upto 50% to loans from commercial banks and NBFCs to smaller waste management companies which have annual turnover less than or equal to INR 25 Crores (\leq EUR 3.1 Million);

Loan types covered:

- Working capital loans or overdraft facilities provided by commercial banks and NBFCs
- Medium-term loans provided by commercial banks or NBFCs for capital investment requirements (capex loans).
- Letter of Credit (L/C) or similar credit facilities offered by commercial banks to importers of equipment;
- Bill Discounting facilities are a part of working capital financing.



Update on Risk Sharing Facility (RSF)

The project launched the RSF with SIDBI as the host to support low-carbon waste management entrepreneurs.

In principle, approval has been given by SIDBI to five companies including:

1. NEPRA – In-principle approval on INR 5 crores working capital loan (25% of loan amount guarantee of INR 1.25 crores - EUR 144 K)
2. Carbon Masters- In-principle approval on INR 11 crore working capital and term loan (25 % of loan amount guarantee of INR 2.75 crores - EUR 316 K)
3. GPS Renewables - In-principle approval on INR 14 crores working capital loan (25 % of loan amount guarantee of INR 3.5 crores - EUR 402 K)
4. MSGP Infra - In-principle approval on INR 22 crores term loan (50% of loan amount guarantee of INR 4 crores - EUR 460 K)
5. Green Tech Environ - In-principle approval on INR 10 crores working capital loan (50% of loan amount guarantee of INR 4 crores - EUR 460 K)

A total of INR 15.5 crores (EUR 1.78 million) worth Credit Guarantee is committed unlocking a total debt amount of INR 62 crores (EUR 7.1 million) .



EU Climate Dialogues Project

1

Technical exchange of best practices between Indian and EU experts on modelling tools – phase II

- to support India-EU collaboration on the development of modelling capacities, modelling tools, support technical and knowledge exchange between India and European* modelling teams (*International Institute for Applied Systems Analysis –IIASA, Austria)

2

Technical Support to State Level Climate Action

- To identify bottlenecks to SAPCC implementation and measures required for effective implementation in five partner states – Delhi, Chhattisgarh, Punjab, Kerala and Gujarat

3

Technical Inputs to Leadership Group on Industry Transition (LeadIT) Activities

- To further deep dive in high potential technological solutions and providing input for decarbonisation roadmaps for the cement and steel sector

Thank You