



# A BEST PRACTICE RBU MODEL



PROJECT NAME:

**FORMALIZATION OF PLASTIC RECYCLING VALUE CHAIN BY  
FORMING RECYCLING BUSINESS UNITS IN BANGLADESH**

BY

**BANGLADESH PETROCHEMICAL COMPANY LIMITED (BPCL)**

Implemented by:

Supported by:

Supported by:

**PLEASE Project**  
Plastic Free Rivers and Seas for South Asia



Only

# 35% OF URBAN PLASTIC IN BANGLADESH GETS RECYCLED

Bangladesh faces a growing plastic waste crisis, ranking as the 10th worst country globally in plastic waste mismanagement. With only 35% of urban plastic being recycled and over 1,000 tons of plastic waste entering the ocean daily, innovative solutions are critical.

Informal Waste Pickers (IWPs), who form the backbone of the recycling ecosystem, face hazardous working conditions and economic exploitation under an unfair middleman (dadon) system. To address these challenges, the Bangladesh Petrochemical Company Limited (BPCL), with support from the PLEASE Project—implemented by the South Asia Co-operative Environment Programme (SACEP) supported by UNOPS, and funded by the World Bank—has introduced the Revolutionary Business Unit (RBU) Model to transform plastic waste management in Bangladesh.



## THERE IS STRONG IMPACT & BUSINESS OPPORTUNITIES FOR BPCL

BPCL has established itself as the first post consumer food grade PET bottle recycling plant in Bangladesh. Since its inception, BPCL has collected and recycled 28,000 MT (over 200 crores) of plastic bottles (PET). Formalizing sorting & collection increases efficiency and reduces health and environmental risks. BPCL's machines

produce cleaner products, developing the resin manufacturing industry and setting new environmental standards. BPCL plans to collect 70,000 MT of PET bottles in the next 10 years. manufacturing industry and setting new environmental standards. BPCL plans to collect 70,000 MT of PET bottles in the next 10 years.

## CURRENT PROBLEM IN PLASTIC VALUE CHAIN

01



**Fragmented Collection Chain:  
Inefficient & non-transparent**

02



**Multiple Layer of Middlemen**

03



**Untracked Cash Transactions**

04



**Inadequate Financial Inclusion  
and Fair Compensation**

05



**Environmental Leakage:  
Plastic in landfills & waterways**

06



**Economic Exploitation:  
Low wages, no social security**

07



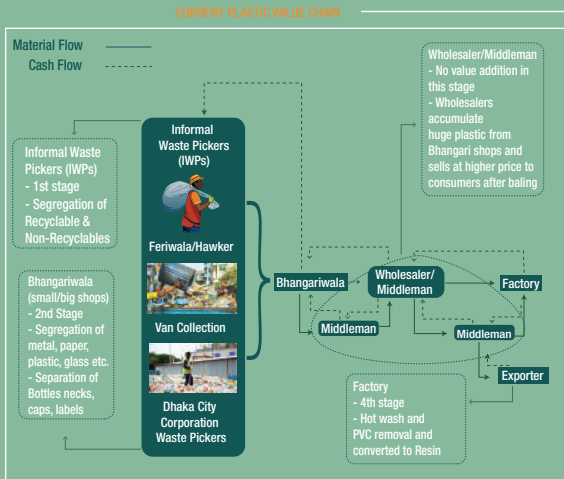
**Unsafe Working Conditions:  
Hazardous environment**



BPCL IS ADDRESSING THESE CHALLENGES THROUGH

## TWO INNOVATIONS

### 1 FORMALIZING THE PLASTIC RECYCLING VALUE CHAIN THROUGH

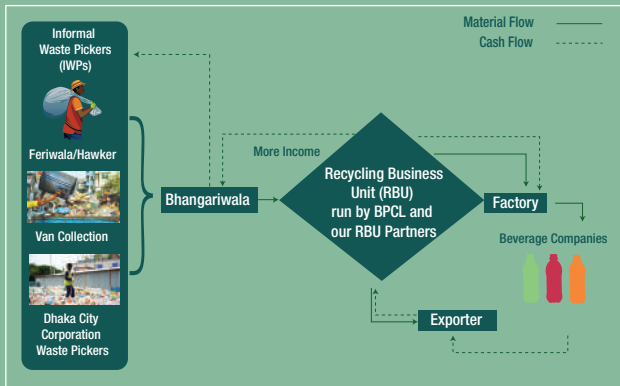


### 2 IMPLEMENTING A DIGITAL TRACKING AND PAYMENT SYSTEM TO

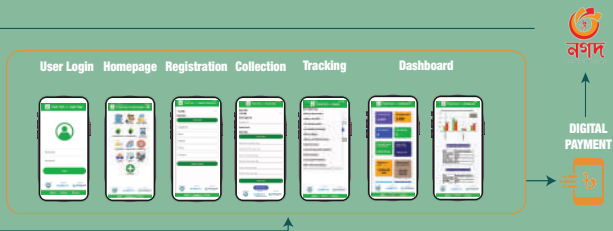


## THE ESTABLISHMENT OF RECYCLING BUSINESS UNITS (RBUS)

BPCL IS SOLVING THE PROBLEM THROUGH RBU MODEL



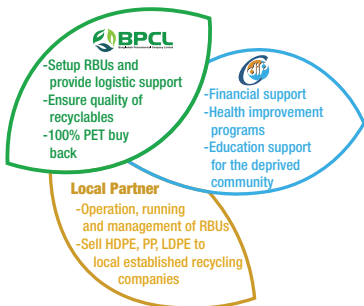
## ENSURE TRANSPARENCY AND FAIRNESS



# OVERVIEW OF THE REVOLUTIONARY RBU MODEL

## RBU MODEL OPERATION

RBUs are independent social ventures formed in partnership with BPCL, local partners and an NGO to increase the collection and also to bring fairness into the chain



## KEY FEATURES

The RBU model transforms waste collection into a fair, structured, and sustainable industry, breaking the cycle of exploitation and providing economic opportunities for waste collectors. By empowering IWPs, strengthening the circular economy, and reducing environmental pollution, BPCL is not just improving the supply chain—it is changing lives and protecting the planet.

**DIRECT WASTE  
COLLECTION**

**FAIR PRICING &  
FINANCIAL INCLUSION**

**IMPROVED  
WORKING CONDITIONS**

**TECHNOLOGY  
INTEGRATION**

**WATER TREATMENT &  
MICROPLASTIC CAPTURE**

**GUARANTEED MARKET  
FOR RECYCLED PLASTIC**

# RBU WASTE COLLECTION & PROCESSING STEPS

## Waste Collection

IWPs and suppliers collect plastics from households, shops and municipalities and bring those directly to the RBUs. BPCL ensures fair pricing for them through transparent weighing and valuation systems.



## Sorting or Pre-Processing

Plastics are sorted by type (e.g., PET, Non-PET, mixed) and color (e.g., green, white, amber) by the factory workers. PET bottles are used for further processing in the RBUs.



## Label and Cap Removal

Labels and caps are removed from PET bottles before shredding.



## Baling or Cutting

After shredding, plastics are either baled or cut into smaller pieces and then transported to the BPCL main factory.



## Transport to BPCL Main Factory

Processed plastic is transported to BPCL's main factory to be converted into recycled PET resin, a raw material used to manufacture new plastic bottles.

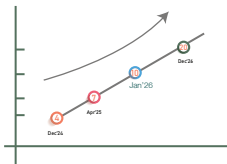


## WE ARE ENVIRONMENTALLY CONSCIOUS

On World Cleanup Day,  **31 IWPs** from the Cox's Bazar RBU joined a  **beach cleanup** drive and a  **canal cleanup** was conducted in December 2024, organized by CDIP. The RBUs have collected **119,958 kg of plastic**,  preventing **4,798,336 bottles** from entering the ocean as of 31 December 2024.

## THE RBU MODEL IS SCALABLE

The RBU model is designed for scalability. BPCL operates **04 RBUs in Feni, Cox's Bazar, Rupganj and Siddhirganj**, with plans to expand to **07 by April 2025 and 20 by 2026**. Each RBU is equipped with modern machinery like shredders, balers, label remover - capable of processing up to **55 tons of plastic waste monthly**. Each RBU has dedicated **female changing room, childcare and separate male & female washrooms** to ensure better working conditions for waste workers.



## SUSTAINABILITY OF THE RBU MODEL

RBU model ensures long-term economic sustainability through **efficient waste collection, transparent pricing and local community engagement**. To extend RBU model nationwide, BPCL plans to introduce a **franchise model**, BPCL will also facilitate **microcredit facilities for informal waste pickers (IWPs) and scrap dealers**. BPCL is providing **buy back guarantee** to purchase all the discarded PET bottles at a fair market price. The ultimate goal is to **spin off the RBUs as a non-profit venture**.





# SNAPSHOT OF IMPACTS

## CHILDCARE FACILITY



- Fully staffed childcare facility with educational material, feeding area at free of cost
- Facilitating women waste workers who previously had no safe and reliable place to keep their child during work
- 70 children of IWPs, waste workers, suppliers across 7 RBUs

## HEALTH CAMP

- Monthly/quarterly health checkups at no cost for IWPs, waste workers and suppliers
- Qualified doctor and nurse provide medical advice with complimentary medicine, prescriptions and health cards
- 28 (per hub 4) health camp in 7 RBUs for 1400 IWPs, suppliers and waste workers



## LIFE SKILL BASED EDUCATION



- Fully subsidized training on income enhancement through efficient waste collection and sorting
- Personal finance mgt training to ensure work with dignity and avoid exploitation by the middlemen
- 50 sessions empowering 1400 IWPs,

## WORKPLACE SAFETY

- PPE distribution to ensure workplace safety for factory workers, scrap dealer shop employees, and IWPs
- Separate female washroom and changing room in all RBUS
- First aid kits provided in all 7 RBUs and scrap dealers' shops



## ENVIRONMENT & SOCIAL IMPACT



- Neighborhood canal cleanup, beach cleanup activity to ensure healthy environment for waste worker and waterways
- Jobs creation target of 1400 waste worker including 50% women

## RBU LOCATIONS

