



Established Pursuant to The Ecological Solid Waste Management Act of 2000 (RA9003) composed of fourteen (14) members from the government sector and three (3) members from the private sector.

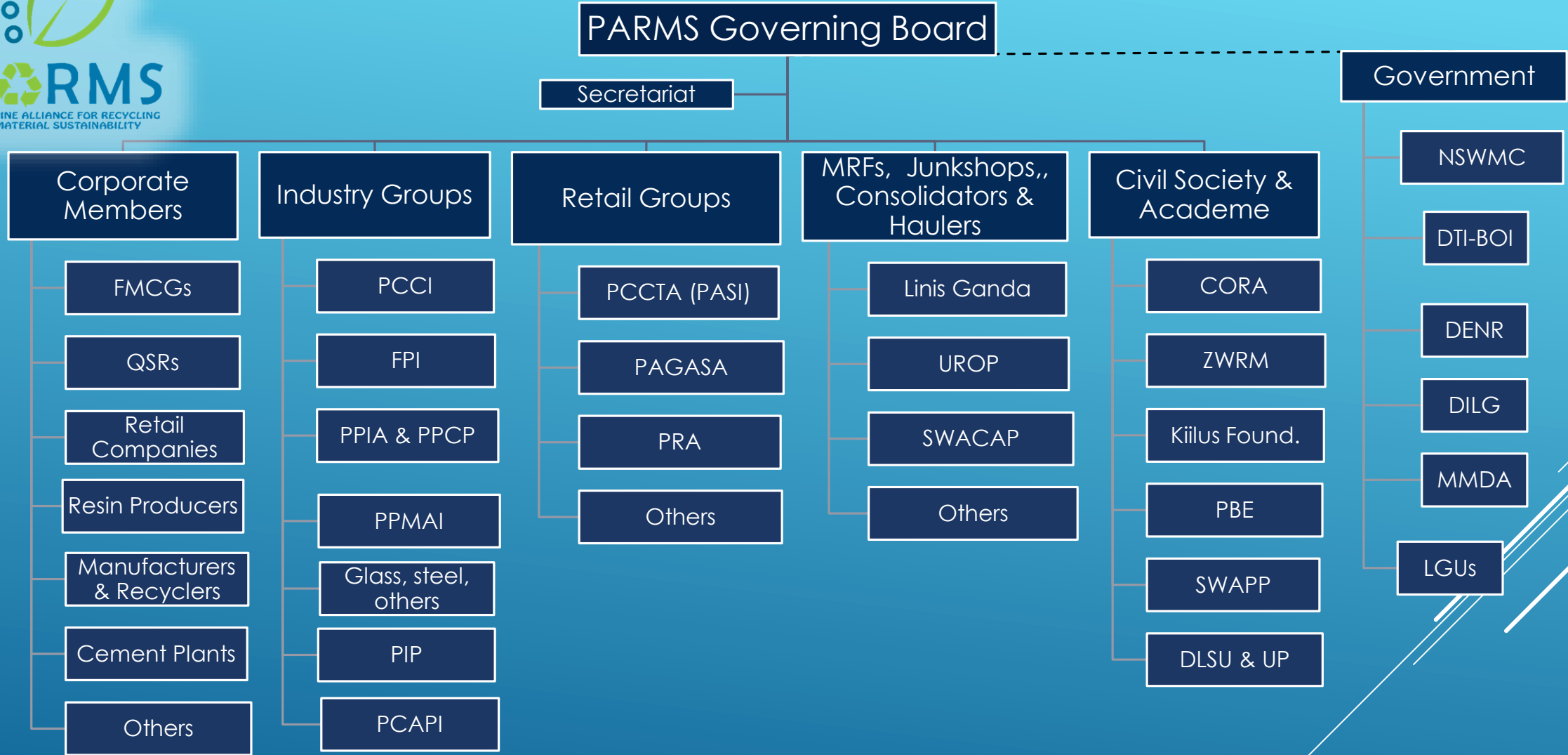


*Philippine Alliance for Recycling
& Material Sustainability*

*Aiming to Develop and Implement a **Holistic & Comprehensive**
Program to Increase **Resource Recovery** and Reduce Landfill Dependence
towards **Zero Waste***



Philippine Alliance for RECYCLING and Material Sustainability



Objective: “Develop & Implement a **Holistic & Comprehensive Program** to Increase **Resource Recovery** & Reduce Landfill Dependence towards **Zero Waste**”

Concept Adopted: **Full Waste Recovery and Recycling program**

R&R Depot

Philippine Alliance for RECYCLING and Material Sustainability

Full Waste Recovery & Recycling Program for Metro Manila



FULL WASTE RECOVERY & RECYCLING PROGRAM PLAN

- ▶ **Component 1: IEC Campaign.** Developed and geared towards proper disposal, recovery, and treatment. (using marine litter, health, etc)
- ▶ **Component 2: Recovery System.** Working with **Existing Programs** (e.g. Waste Markets, DENR-DepEd's "Eco Savers", Unilever's "Misis Walastik Redemption ng Plastik" and Nestle's "Laki sa Tibay") to collect residual plastic for conversion to a marketable product. Enhancing local RECYCLING PROGRAMS.
- ▶ **Component 3: Collection from Recovery Points.** LGU through Barangays or LGU ENROS to bring it to a common storage area or treatment facility in line with waste diversion targets.
- ▶ **Component 4: Technical Assessment.** Work with DOST, Academe and other Industry "experts" to assess existing technologies (from hollow blocks, bricks, school chairs) including the proper BAT (Best Available Technologies) BEP (Best Environmental Practice and keep an eye on emerging and even developing new technologies)
- ▶ **Component 5: Treatment Facility.** Following the model of GREEN ANTZ or Villar SIPAG's plastic factory. Managed by the community or cooperatives (supported by the LGU) under the supervision of PORMS to control the operations, monitor the data and will have the right to retrieve (confiscate) the equipment if it is not running. With a business model that runs itself without need of external funding support. LGU provides the land and structure, Industry provides the Equipment with no cost recovery or develop a revolving fund (if financial feasibility allows)
- ▶ **Component 6: Market Development.** Enhance market, ensures project viability and sustainability



A collaborative PARTNERSHIP to set up a PLASTICS RECYCLING FACILITY for low to no value flexible plastics packaging waste. Developing a R&D facility that aims to set up a business model that can be replicated in other cities.

Investing Partners



Supporting Partners



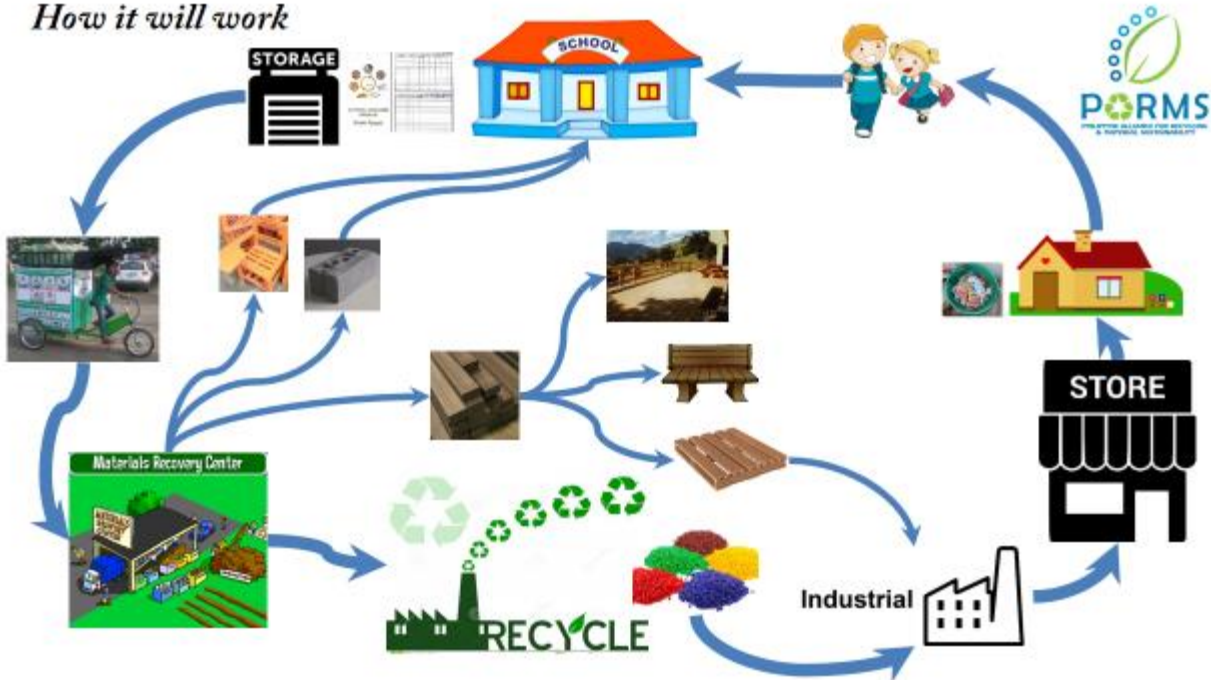
A COMMITTED PARTNERSHIP FOR A ZERO-WASTE FUTURE: DESIGN TURNOVER FOR THE PORMS - PARANAQUE RECYCLING PLANT



VISUAL RENDERING OF THE PORMS RECYCLING PLANT



How it will work



Mechanical Recycling for PLASTICS



Residuals (Alternative Technologies)

This section highlights various alternative technologies for plastic residuals:

- BY PRODUCT - HOLLOW BLOCKS:** Shows plastic waste being converted into building materials.
- WASTE PLASTIC BAGS TO SCHOOL CHAIRS:** A project by Villar SIPAG showing plastic bags being repurposed into school furniture.
- MIXED WASTE PLASTIC TO SCHOOL CHAIRS:** Another project showing mixed plastic waste being used for school chairs.
- Laminates to EcoBricks:** Shows plastic waste being used to create eco-bricks for construction.
- Manila, Philippines EcoBrick Training of Trainers Workshop:** A training event held from October 20-22, 2017.
- Other Alternatives CROCHETED test-tube bags:** Shows plastic waste being used to create crocheted bags.
- The Melting Oven:** A technology for melting plastic waste.
- Functional Products:** Shows various products made from recycled plastic.
- Waste Plastics in Asphalt Mix for Road Pavement:** Shows plastic waste being used in road construction.
- RESULTS OBTAINED:**
 - Specific gravity increased with modified asphalt content
 - High stability at 6.0% modified asphalt content
 - Flow increased with modified asphalt content
 - Air voids decreased as modified asphalt content increases

Residuals (Energy Recovery)

This section highlights energy recovery technologies for plastic residuals:

- SUKI SMALL-SCALE GARBAGE GASIFIER PLANT:** A project for gasifying waste into energy.
- Other Alternatives Plastic Waste to Fuel TECHNOLOGY:** A project for converting plastic waste into fuel.
- RECON ENERGY:** A company specializing in energy recovery from waste.
- Cement Kiln Co-processing Operation:** A diagram showing the integration of plastic waste into a cement kiln process, comparing traditional raw materials and fuels with alternative ones.

UPCOMING PROJECTS:

QC Project Consortium: MPIC - COVANTA - MACQUAIRE JV with QC Gov PhP 158 Investment,
 MBT (Mech. Bio. Treatment) + Stoker
 35 yr concession agreement + 15 yrs; 2200 TPD,
 MOEJ (Envi. Ministry Japan)
 Davao
 Waste to Worth Project
 Pampanga, Laguna & Dagupan Projects coming soon