

# Jeju Plus International Environment Forum 2022

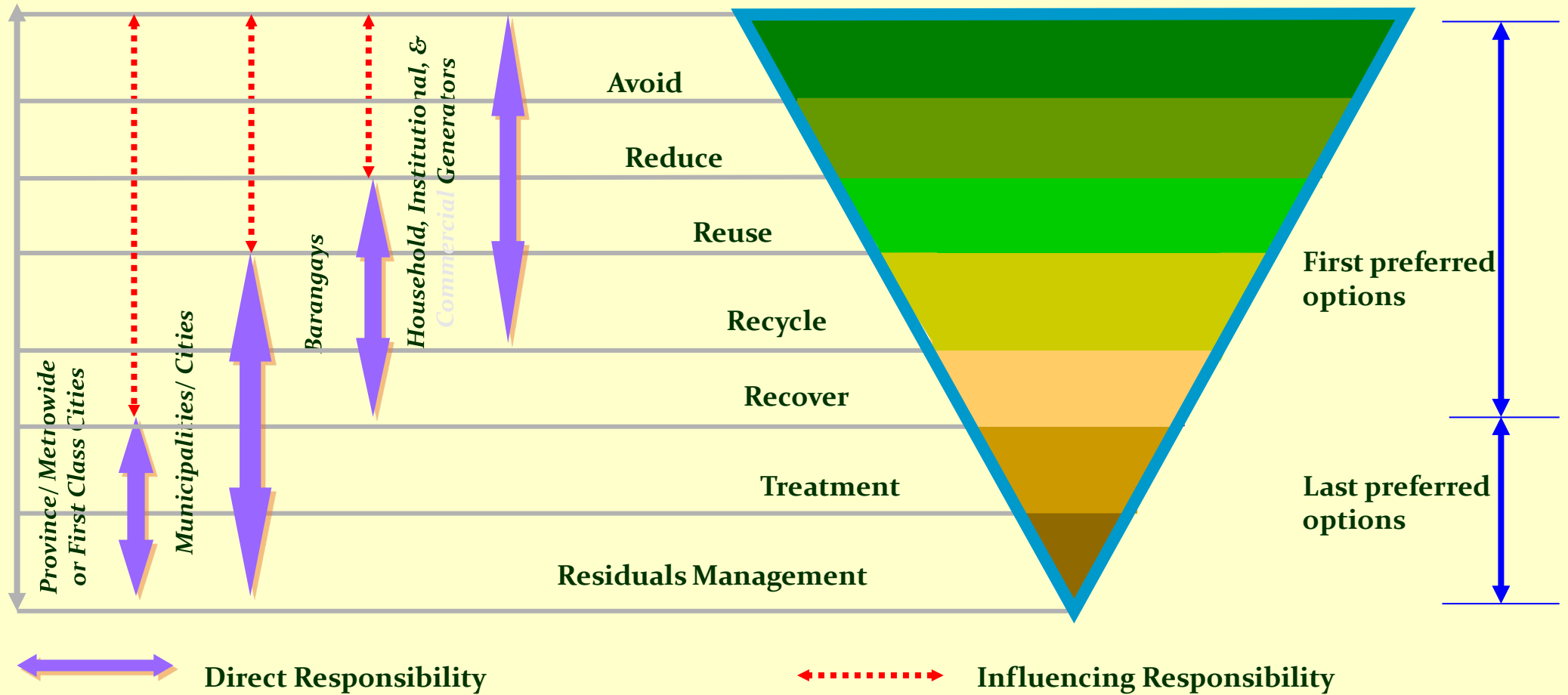


## *Updates on Solid Waste Management Implementation in the Philippines*

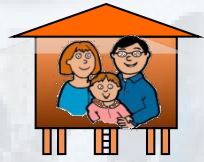


# LEVELS OF GOVERNANCE STARTING FROM HOUSEHOLDS UP TO THE PROVINCE OR METRO WIDE LEVEL OF POLITICAL ORGANIZATION

*Partnership enterprises as dictated by policy, economies of scale and in partnership with LGUs*



# CONCEPTUAL FRAMEWORK OF RA 9003



Biodegradable wastes

Recyclable Wastes

Special Wastes

Residual Wastes



Separate Collection Schedule  
or  
Use of Compartmentalized Vehicle

BARANGAY  
MRF

GARDENS/  
FARMS

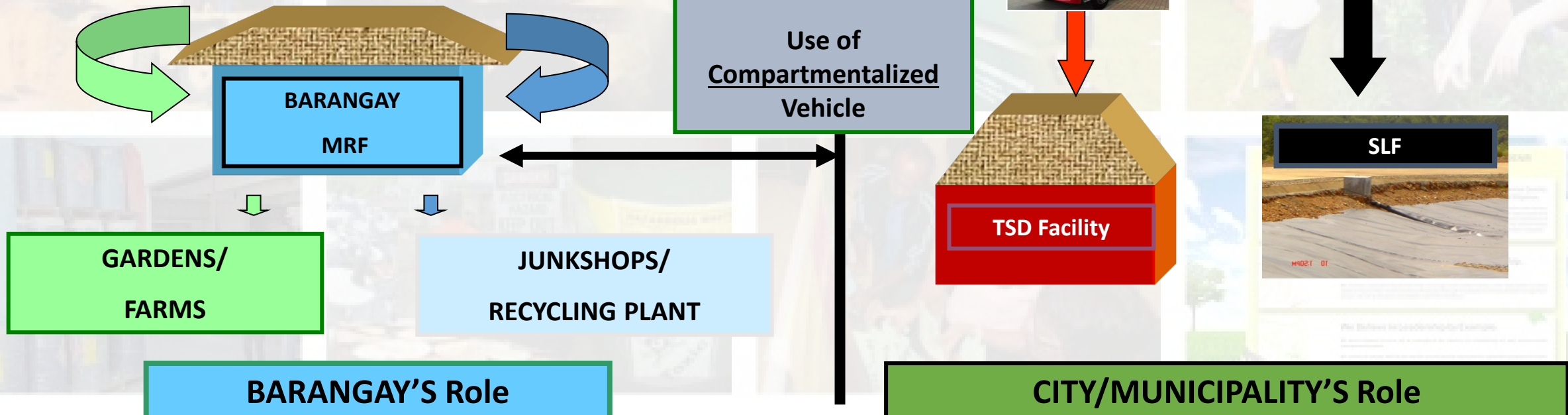
JUNKSHOPS/  
RECYCLING PLANT

TSD Facility

SLF

BARANGAY'S Role

CITY/MUNICIPALITY'S Role



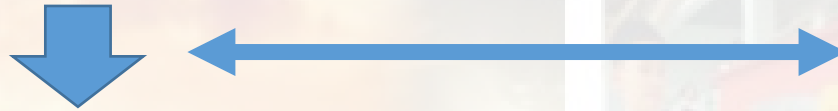




# Institutional Mechanism

DENR

Chair, National Solid Waste Management Commission



NSWMC Members

Vice Chair: Private Sector

1. DILG
2. DOST
3. DPWH
4. DOH
5. DTI
6. DA
7. MMDA
8. League of Provincial Governors
9. League of City Mayors

10. League of Municipal Mayors
11. Association of barangay councils
12. TESDA
13. PIA
14. Manufacturing/Packaging Industry
15. Recycling Industry - *current Vice Chairman*
16. Non-Government Organization



Environmental Management Bureau

- Provides Secretariat support to the Commission
- EMB Director Heads the National Ecology Center under the Commission
- EMB Regional Directors Head the Regional Ecology Centers

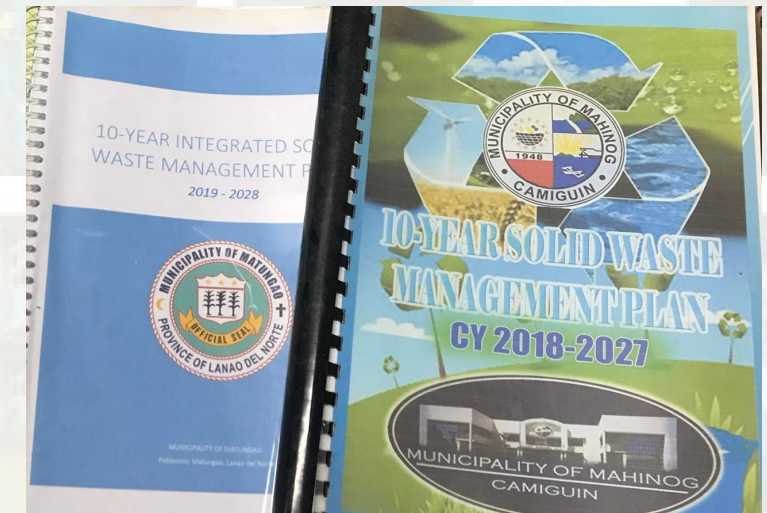




# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

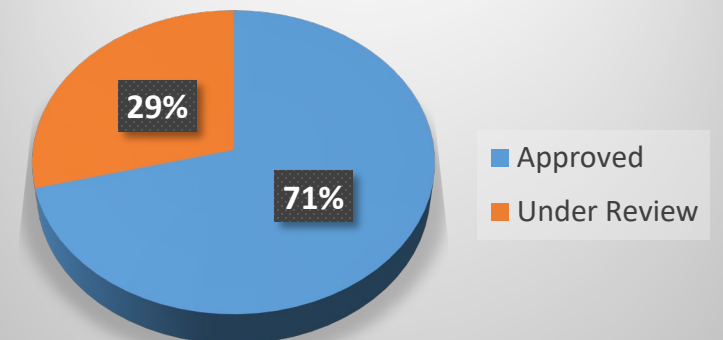
- ❑ **Technical Assistance to LGUs in the Review and Approval of Ten Year Solid Waste Management Plans**



Total No. of LGUs (Provinces, Cities and Municipalities)	Total LGUs with *Approved SWM Plans	Total LGUs with SWM Plans *Currently Reviewed for Subsequent Endorsement to the NSWMC ExeCom
1,592	1,131	461

\* As of June 2022

**Ten Year Plan**



# SOLID WASTE MANAGEMENT

## FY 2022 Thrusts and Priorities

### ❑ Non-Environmentally Acceptable Products and Packaging Materials (NEAP)

- ❑ The first set of NEAP to be identified by the NSWMC include the plastic softdrink straw and plastic coffee stirrer, based on the study conducted by the Department of Science and Technology – Industrial Technology Development Institute (DOST-ITDI);
- ❑ This was adopted by nine (9) members of the Commission including: the DENR, DILG, DTI, DA, MMDA, League of Cities of the Philippines, TESDA, PIA and the Non-Government Organizations
- ❑ Public Consultations were done on the following dates:

Schedule	Regional Stakeholders involved	Mode
April 28 2022	NCR, CAR, I and II	Hybrid (MS Teams)
May 12, 2022	III, CALABAZON, MIMAROPA, V	Hybrid (MS Teams)
May 26, 2022	VI, VII, VIII	Virtual (MS Teams)
June 8, 2022	IX, X, XI, XII, CARAGA	Virtual (MS Teams)
June 28, 2022	Industry Sector	Face to face



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ❑ **Conduct of Life-Cycle Assessment on Single-Use Plastics for Possible Non-Environmentally Acceptable Products and Packaging Materials (NEAP)**

### ❑ **NSWMC Resolution No. 1363, Series of 2020 banned the following single-use plastics in government offices:**

- ❑ **Plastic cups (lower than 0.2 mm in thickness;**
- ❑ **Plastic drinking straw**
- ❑ **Plastic coffee stirrers**
- ❑ **Plastic spoons**
- ❑ **Plastic forks**
- ❑ **Plastic knives; and**
- ❑ **Plastic labo and thin filmed sando bags (lower thank 15 microns)**

- ❑ **The DOST-ITDI as a member of the NSWMC, is currently conducting the LCA for the plastic spoons, forks, knives and the plastic labo. Once any of these is identified as NEAP and adopted by the Commission, another set of public consultation for the phase-out of these products will be conducted.**



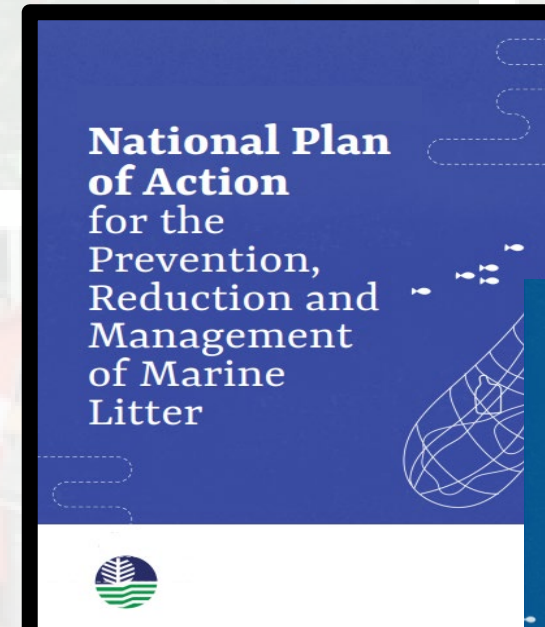


# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ❑ Support to the Implementation of the National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML)

- ❑ The NPOA-ML was adopted by the National Solid Waste Management Commission through Resolution No. Resolution no. 1441 in 2021. It was also adopted by the DENR through DENR Memorandum Circular no. 2021-10.
- ❑ The NPOA-ML has a vision of “A Philippines free of marine litter through shared responsibility, accountability, and participatory governance” and an overarching goal of “zero waste to Philippine waters by 2040”



The overarching goal of the NPOA-ML is

**“zero waste to Philippine waters by 2040”**

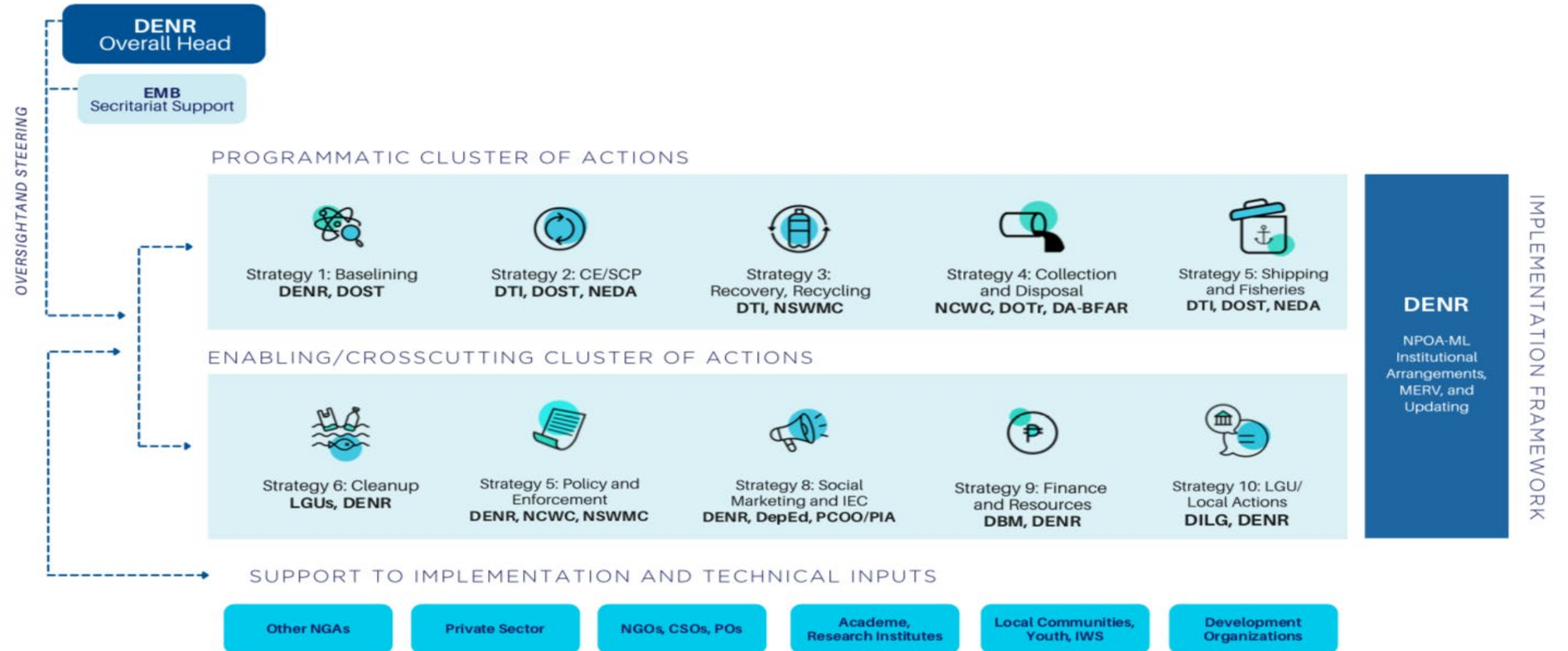
to support the vision of

**“a Philippines free of marine litter through shared responsibility, accountability, and participatory governance.”**



# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

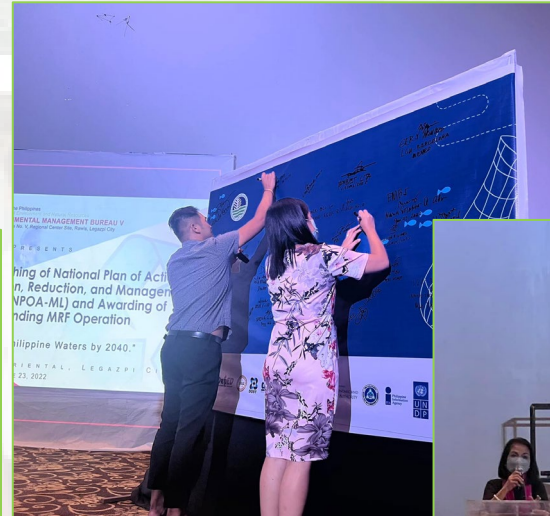
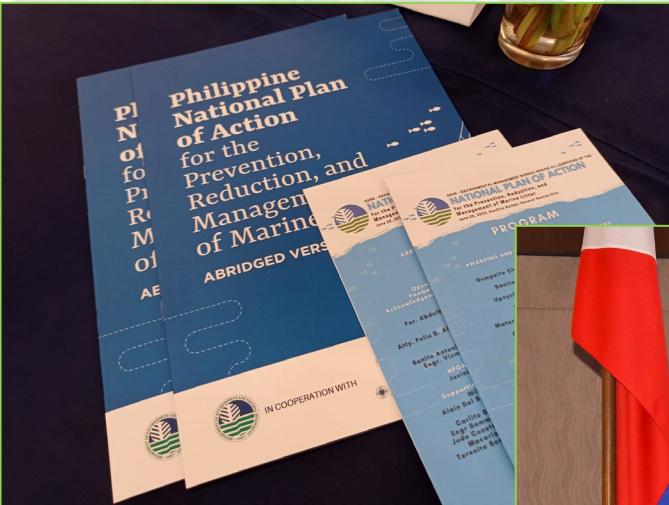




# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

- ❑ Support to the Implementation of the National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML)



Conduct of Regional NPOA-ML Launch in the 16 Regions and Inter-Agency Coordination among the Cluster Lead Agencies



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

- ❑ Support to the Implementation of the National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML)



Provision of SWM Equipment to 94 LGUs for the Processing of Plastic Wastes into Chairs





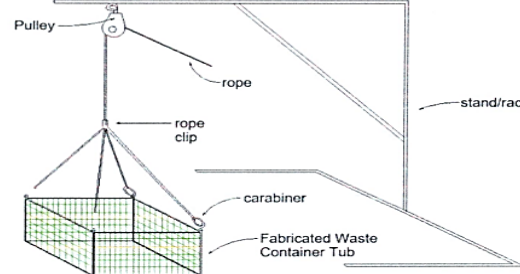
# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

- ❑ Support to the Implementation of the National Plan of Action for the Prevention, Reduction and Management of Marine Litter (NPOA-ML)



### 3. Conceptual design of the Manually Operated Waste Lifter



Note: The installation of the stand rack/support depends upon the site condition. Provision of counterweight shall be provided if necessary for additional stability to the manually operated waste lifter. The stand rack/support shall be designed for dismantling and movable purposes.

### 4. Plastic Boat



Site Assessment on the Installation of Trash Traps to LGUs in NCR and Region III



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ☐ Support to LGUs in the Management of Biodegradable Wastes



**Provision of Biowaste Shredders, Composter and Biogas Digesters for the Management of Biodegradable Wastes**



# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

## Support to LGUs in the Site Assessment of Proposed Sanitary Landfills for Waste Disposal



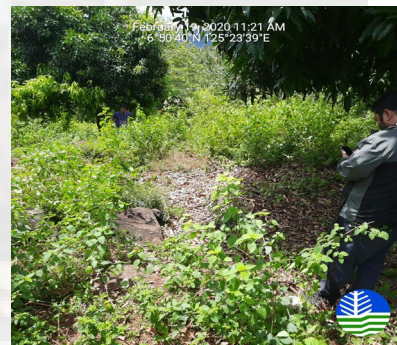
Figure 1. Image shows the proposed sanitary landfill facility site and its vegetation located at Purok-6, Brgy. Katipunan, Bayugan City, Agusan del Sur.



# SOLID WASTE MANAGEMENT

## FY 2022 Thrusts and Priorities

### ☐ Support to LGUs in the Site Assessment of Proposed Sanitary Landfills

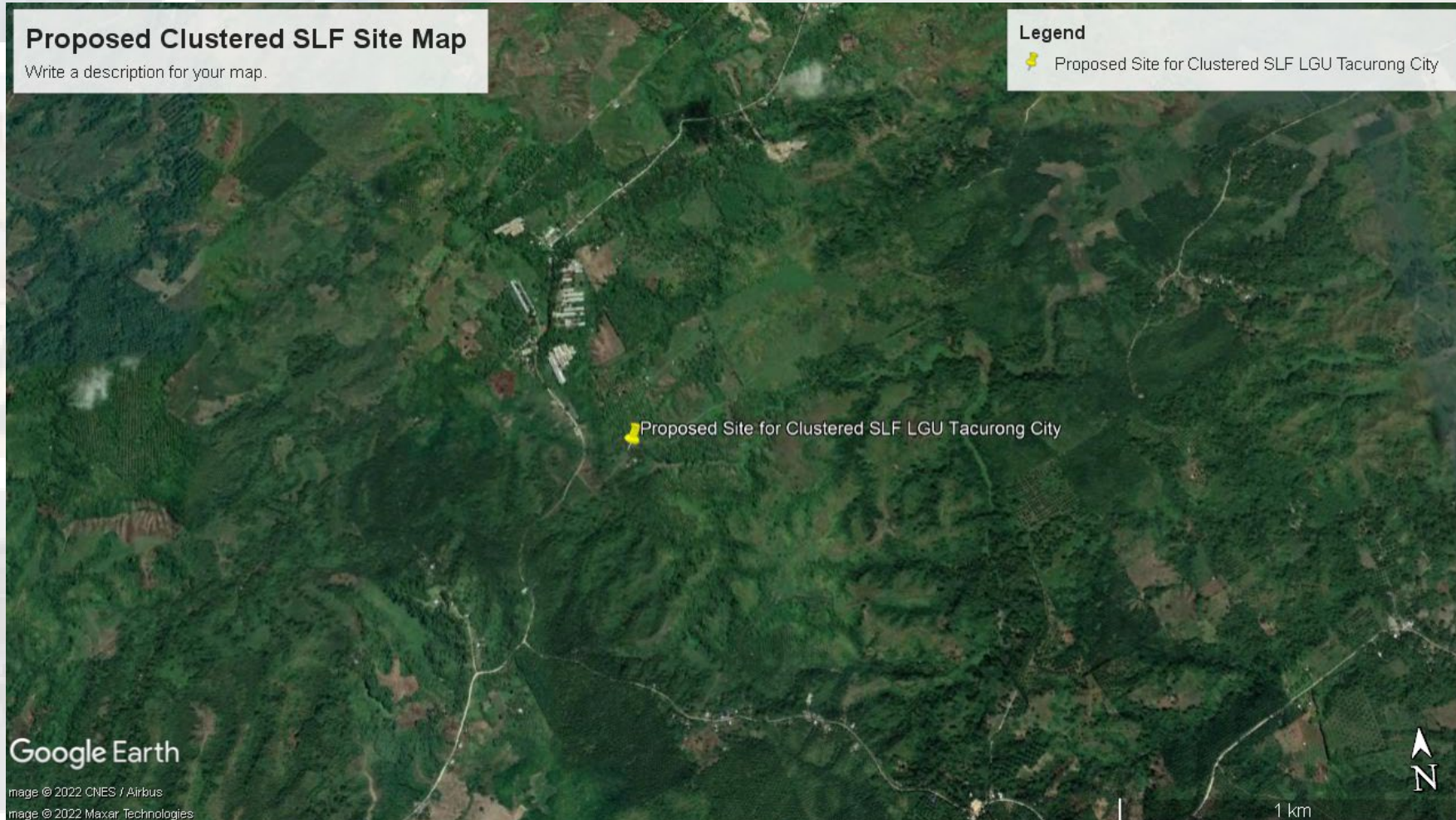




# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

- ❑ **Development of a Feasibility Study for the Establishment of Sanitary Landfill for Use of LGU-Cluster**



**ENVIRONMENTAL MANAGEMENT OF BUSINESS/DEVELOPMENT**  
**Environmental Policy**

Environmental Policy

The Office of Environment and Planning

The Office of Environment and Planning

The Office of Environment and Planning



# SOLID WASTE MANAGEMENT

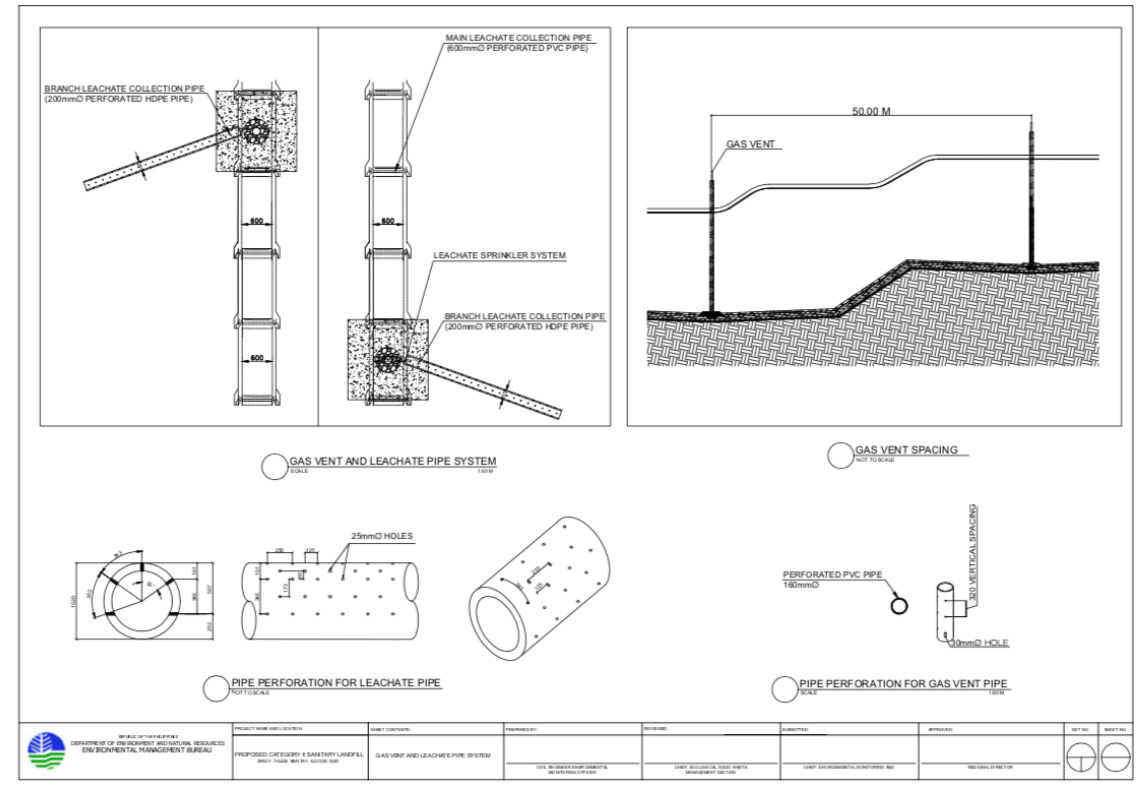
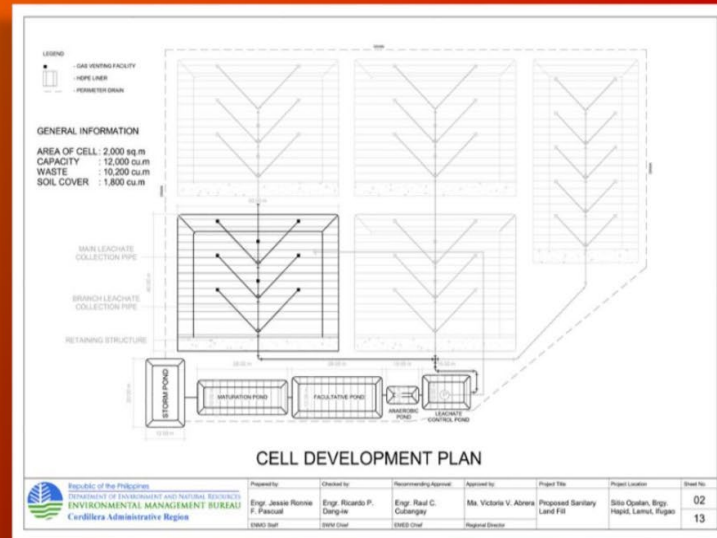
FY 2022 Thrusts and Priorities

## Support to LGUs in the Design of Sanitary Landfills

### OPERATIONAL FACILITIES

#### CELL 1

- Cell 1 Area: 2,000 sq.m
- Designed Volume Capacity: 12,000 cu.m
- Volume of Soil Cover to be Applied: 1,800 cu.m



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ☐ Support to LGUs in the Design of Sanitary Landfills

SANITARY LANBFill FACILITY (CATEGORY III) PERSPECTIVES



**Figure 01.** Aerial Perspective of a Category III SLF, highlighting the Emplacement Cell, Leachate Treatment Facility, and Total Solid Waste Management Facilities.



**Figure 02.** Aerial Perspective of a Leachate Treatment Facility



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ❑ Solid Waste Enforcement and Education Program (SWEEP)



Unclean site monitored



Cleaned-up



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ❑ Solid Waste Enforcement and Education Program



Unclean site monitored



Cleaned-up



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

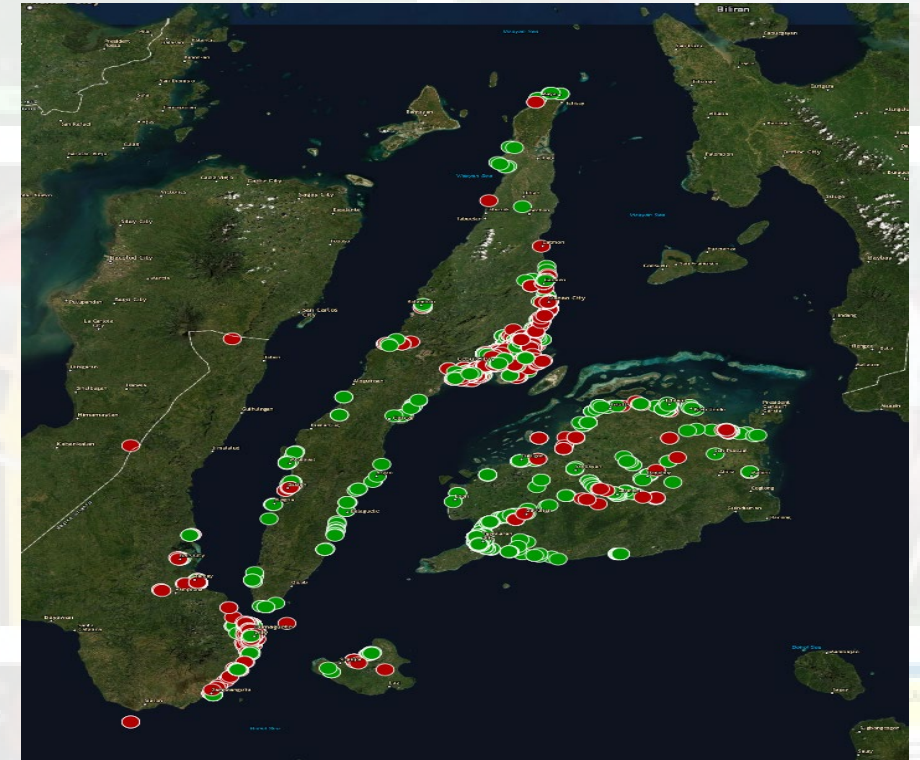
## ❑ Solid Waste Enforcement and Education Program



The before and after photo of the unclean areas monitored by SWEET-ENMO



Two months Monitoring and clean up of solid waste debris due to typhoon Odette in coordination with Cebu City river troopers



The map view of the unclean (red dot) and clean (green dot) monitored sites of SWEET-ENMOs

# SOLID WASTE MANAGEMENT

## FY 2022 Thrusts and Priorities

### Online Submission of SWEET-EnMo Reports

**SWEET-ENMO REPORTS**

Table Filter: dd/mm/yyyy From: dd/mm/yyyy To: dd/mm/yyyy Date Range: R1 MAP VIEW

Signed Reports LGU Report Summary Casehandler Report Summary All Reports Unclean Reports > 3 months

Show 50 entries Search:

IIS No.	Casehandler	Type of Report	Date Created	Subject	Date Patrolled	LGU Patr	Status
R1-2022-013951	Mark Chris O. Orine	Unclean	Jul 19, 2022	1. Orine - Month of July - Regular Monitoring	Jul 15, 2022 - 08:24 am	MUNICIP	Signed Document
R1-2022-013953	Mark Chris O. Orine	Unclean	Jul 19, 2022	2. Orine - Month of July - Regular Monitoring	Jul 15, 2022 - 08:24 am	MUNICIP	Signed Document
R1-2022-013495	Neil Arvin L. Recaido	Clean	Jul 18, 2022	1. Recaido - Month of July - Validation of Action	Jul 15, 2022 - 09:30 am	LGU, SAN	Signed Document
R1-2022-013498	Neil Arvin L. Recaido	Clean	Jul 18, 2022	2. Recaido - Month of July - Validation of Action	Jul 15, 2022 - 09:50 am	LGU, SAN	Signed Document
R1-2022-013853	Jollie Joy G. Orifiano	Unclean	Jul 18, 2022	10. Orifiano - Month of June - Regular Monitoring	Jun 20, 2022 - 08:52 am	LGU, BAN	Signed Document
R1-2022-013791	Arnel R. Josue	Unclean	Jul 16, 2022	1. Josue - Month of July - Regular Monitoring	Jul 13, 2022 - 07:13 am	LGU VIN1	Signed Document
R1-2022-013792	Arnel R. Josue	Unclean	Jul 16, 2022	2. Josue - Month of July - Regular Monitoring	Jul 13, 2022 - 07:27 am	LGU VIN1	Signed Document
R1-2022-013793	Arnel R. Josue	Unclean	Jul 16, 2022	3. Josue - Month of July - Regular Monitoring	Jul 13, 2022 - 09:21 am	LGU VIN1	Signed Document
R1-2022-013290	Philip Matthew R. Licop	Clean	Jul 16, 2022	1. Licop - Month of July - Validation of Action	Jul 14, 2022 - 09:29 am	MUNICIP	Signed Document
R1-2022-013291	Philip Matthew R. Licop	Clean	Jul 16, 2022	2. Licop - Month of July - Validation of Action	Jul 14, 2022 - 09:47 am	MUNICIP	Signed Document

REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
ENVIRONMENTAL MANAGEMENT BUREAU REGION I

**SWEET-EnMo FIELD INVESTIGATION REPORT**

I. Date Patrolled: March 22, 2022  
II. Time Patrolled: 09:10:00 AM

III. LGU Patrolled:

City / Municipality	DAGUPAN CITY
Province	PANGASINAN
Barangay	

IV. Violation(s) Observed:

Check (✓) as appropriate	Prohibited Act	Section Chapter VI, RA 9003
<input type="checkbox"/>	Littering, throwing, dumping of waste matters in public places or causing or permitting the same.	Sec. 48(1)
<input type="checkbox"/>	Open burning of solid waste.	Sec. 48(3)
<input type="checkbox"/>	Quantity in open dumps and landfills.	Sec. 48(5)
<input type="checkbox"/>	Open dumping, burying of biodegradable or non-biodegradable materials in food-stone areas.	Sec. 48(6)
<input type="checkbox"/>	Establishment or operation of open dumps as enjoined in RA 9003 or closure of said dumps in violation of Section 37 (Prohibition Against the Use of Open Dumps for Solid Waste).	Sec. 48(9)

V. Exact location and type of area where violation(s) were observed (fill up and check as appropriate):

LOCATION	
Barangay	Bonhan Boring
Street	near upper tower
Geographical coordinates	Lat: 16.08879 Long: 120.35397

VI. TYPE OF AREA/PUBLIC PLACE

<input type="checkbox"/> Major Thoroughfare	<input type="checkbox"/> Road	<input type="checkbox"/> Sidewalks	<input type="checkbox"/> Canal	<input type="checkbox"/> E-areas
<input type="checkbox"/> Parks	<input type="checkbox"/> Establishments	<input type="checkbox"/> Bridge	<input type="checkbox"/> Coastal	<input checked="" type="checkbox"/> Vacant Lot
<input type="checkbox"/> Other: _____				

V. Type of Monitoring Activity (pls. check, fill up as appropriate)

Regular Monitoring  
 Validation of Action

• Date of first monitoring: March 15, 2022  
• Date of last monitoring: March 22, 2022

Validation of Action by the LGU after issuance of NGW

• Date of first monitoring: \_\_\_\_\_  
• Date of last monitoring: \_\_\_\_\_  
• Date of issuance of last Notice: \_\_\_\_\_  
• Number of times same site is found with illegal dumping: \_\_\_\_\_  
• Number of times same site is found with open burning activity: \_\_\_\_\_

VI. Photo documentation (pictures of the same site taken during monitoring done on March 22, 2022)



Figure 1:  Figure 2: 

Figure 1: Mixed wastes were dumped in a vacant lot. Figure 2: The site was cleaned up.

VII. Additional Findings / Remarks:

• Estimated land area covered by solid waste (sq. m.): 5  
• Final Disposal of Solid Waste and Coordinates: Sanitary Landfill & 15.3018732 - 120.5223016  
• Location: Metro Clark Waste Management

VIII. Actions to be undertaken:

a. To prepare immediately the field investigation report;  
 b. To prepare the Notice to the LGU;  
 c. To secure copy of SWM Ordinance of the LGU  
 d. To endorse the concern to EMB Region I SWMS for further action. (for LGUs that are consistently violating.)

Prepared and submitted by:  
**Jayson C. Aro**  
Environmental Monitoring Officer

Checked and Validated by:  
**Marygail Amadorillo Killa**  
Senior Environmental Mgmt. Specialist  
**Ryenne Narvaez**  
Engineer IV  
**Engr. Merja Dorica Hipe**  
Regional Director

July 14, 2022  
Date

Copy Furnish:  
• Regional Executive Director, Department of Environment and Natural Resources (RED DENR-CO);  
• Regional Director, Environmental Management Bureau (RD EMB-CO);  
• EMB-CO Provincial Environmental Management Units (PEMUs);  
• EMB-CO SWM Division.



# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

## ❑ Solid Waste Enforcement and Education Program

PLEASE CLICK RED/GREEN CIRCLE TO VIEW DETAILS

Zoom to

LGU, DAGUPAN, PROVINCE OF PANGASINAN - EMBR1-1427000-30157 (R1-2022-013494)

DENR-EMB R1  
ENMO-Jayson Aro  
03.15.2022 01:45 pm  
16.02371, 120.32591  
Lucas District, Dagupan City 2400  
Dagupan

After



# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ☐ Accessible SWM Information through the EMB Data Center

The screenshot displays the website nswmc.emb.gov.ph with a navigation menu and a grid of 16 categories of SWM information. The navigation menu includes: GOVPH, Home, About, The Commission, National Ecology Center, Resources, Special Projects, CSWMP, and Contact Us. The categories are:

- LGU 10-Year Solid Waste Management Plan
- LGU Solid Waste Profile
- Solid Waste Generation
- LGU Best Practices
- Operational Sanitary Landfills
- Sanitary Landfill Designs
- Recipients of SWM Equipment
- Closed Illegal Dumpsites
- Waste Analysis and Characterization Study (WACS) Manual
- Non-Environmentally Acceptable Products (NEAP) Documents
- National Plan of Action on Marine Litter (NPOA-ML) Documents
- Management of COVID-19 Related Health Care Wastes
- SWM Materials for DepEd by Nestlé and NSWMC
- Green Choice Philippines Awarded Eco-products

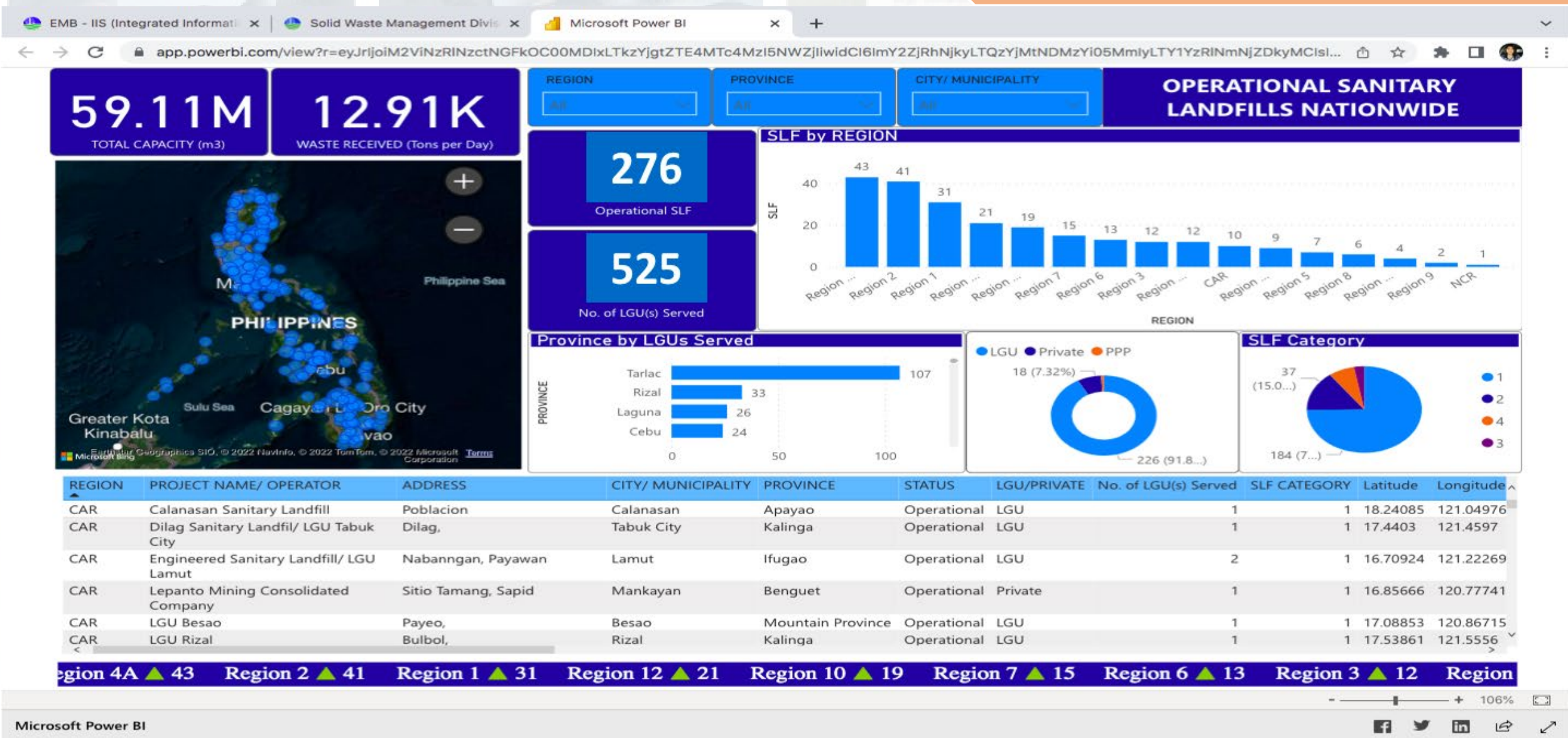






# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities





# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

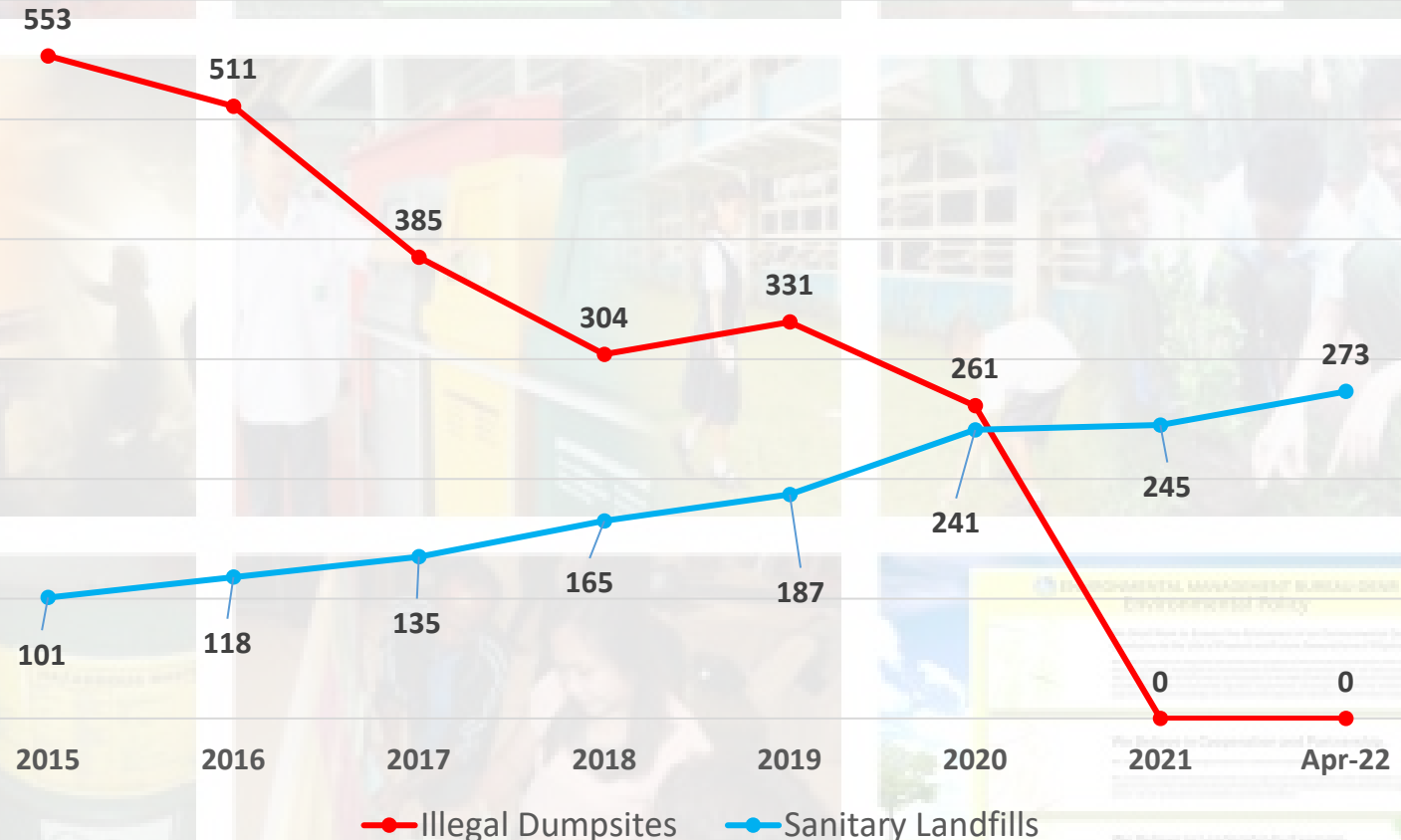
- **Illegal Dumpsites**

- ✓ **100%** of illegal dumpsites in the country were closed through the marching order of the DENR Secretary in 2021.

- **Sanitary Landfill**

- ✓ A total of **273 SLFs** operational nationwide.

Disposal Facilities (CY 2015-2021)



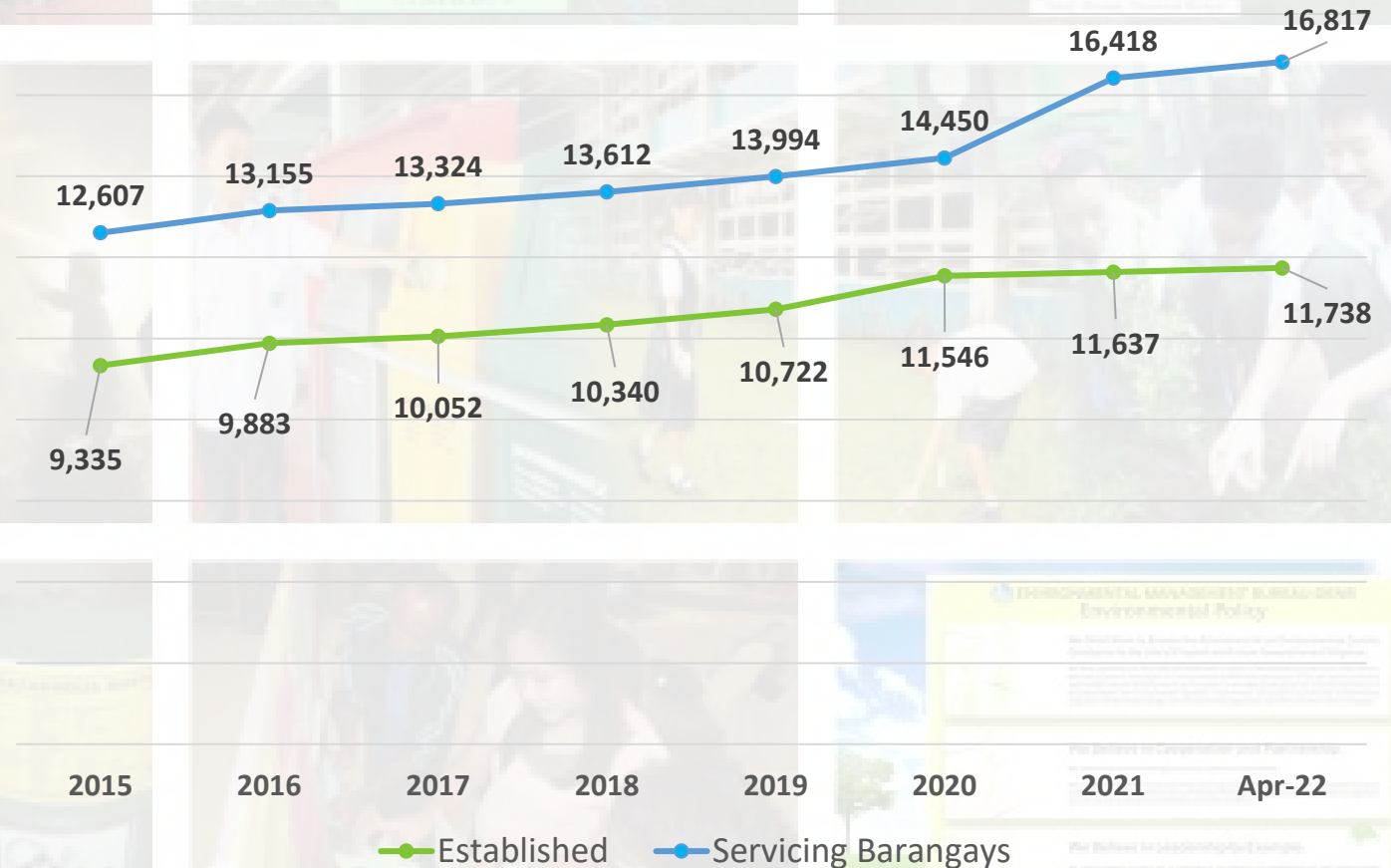
# SOLID WASTE MANAGEMENT

FY 2022 Thrusts and Priorities

## Materials Recovery Facility (MRF)

- ✓ A total of **11,738 MRFs** established servicing **16,817 barangays** nationwide.

Materials Recovery Facility (CY 2015-2021)





# SOLID WASTE MANAGEMENT

*FY 2022 Thrusts and Priorities*

## ❑ Policies Undergoing Consultation

- Guidelines for Best Available Techniques & Best Environmental Practice for WtE Facilities (DAO)
- Technical Standards of WtE Facility on Appropriately Controlled Combustion (JAO)
- Policy Review and draft amendment for certain provisions of RA 9003
- Clustering of SLF
- Amendment of Siting Criteria for SLF
- Guidelines on the Total SWM Solution
- Policy on the Importation of Recovered Paper



# NSWMC Membership under the Extended Producer Act of 2022

## Government Sector

1. Department of Environment and Natural Resources (DENR);
2. Department of the Interior and Local Government (DILG);
3. Department of Science and Technology (DOST);
4. Department of Health (DOH);
5. Department of Trade and Industry (DTI);
6. Department of Agriculture (DA);
7. Metro Manila Development Authority (MMDA)
8. Union of Local Authorities of the Philippines

## Non-Government Sector

- Three (3) representatives from Non-Government Organizations (NGOs with a track record on solid waste management or waste reduction, recycling and resource recovery;
- A representative from the recycling, composting, or resource recovery and processing industry; and
- A representative from the manufacturing industry, packaging industry, or obliged enterprises



# Extended Producer Act of 2022

## OBLIGED ENTERPRISES

- Obligated enterprises shall refer to product producers that are required to implement an EPR program under this Act (Section 3. Definition of Terms);
- Product producers obliged to implement ERP under this Article shall refer to large enterprises that generate plastic packaging waste

# Extended Producer Act of 2022

## Compliance Period for Plastic Packaging Recovery Programs

The following targets for the recovery of plastic product footprint generated during the immediately preceding year are hereby set:

“December 31, 2023 – twenty percent (20%);

“December 31, 2024 – forty percent (40%);

“December 31, 2025 – fifty percent (50%);

“December 31, 2026 – sixty percent (60%);

“December 31, 2027 – seventy percent (70%) and

“December 31, 2028 and every year thereafter – eighty percent (80%)”





Thank you!



Solid Waste Management Division  
Environmental Management Bureau  
Department of Environment and Natural Resources  
DENR Compound, Visayas Avenue, Quezon City  
Philippines

Email address: [recordsco@emb.gov.ph](mailto:recordsco@emb.gov.ph) ; [swmdco@emb.gov.ph](mailto:swmdco@emb.gov.ph)