



CLIMATE AND CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS



Cebu City, Philippines

Empowering Municipalities to Achieve Co-Benefits
Through Climate and Clean Air Coalition

Sao Paulo, Brazil September 8, 2014

Nida C. Cabrera

City Councilor

Chairperson, Committee on Environment, City Council

Vice-Chairperson, Cebu City Solid Waste Management Board

nida_cabrera@yahoo.com



City Overview

Population :
866,171 (NSO 2010)

Daytime population :
estimated at more than
a million

Total Land Area : 315.0 km²
50 Urban Barangays
30 Rural Barangays

Considered as the second-largest center of business in the country. barely 15% of the city's total land area sits on flat terrain

Uplands are also highly vulnerable to landslides from rainfall

Climate patterns indicate high inter-annual variability, with extreme weather events

Cebu City will likely find itself caught in a “climate sandwich” as saltwater intrusion advances further, sea levels rise and more intense typhoons lash the coastline with storm surge.

(Source: (WWF& BPI Foundation Business Risk Assessment)





Solid Waste Sector

Rapid urbanization coupled with the need to manage climate change impacts require a systematic and comprehensive ecological solid waste management system to ensure the protection of public health and the environment.

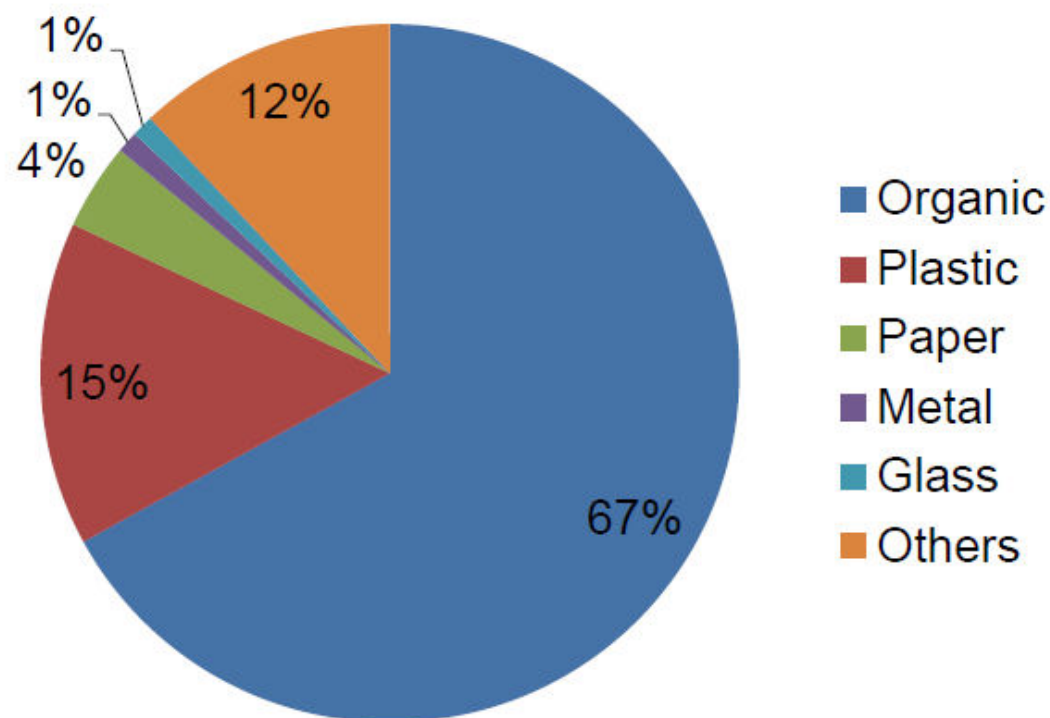


Solid Waste Services

Total waste generation: 182,500 tonnes/year (Average 500 tonnes/day)
Waste collection: Approximately 100%
Final landfill: 114,975 tonnes/year (315 tonnes/day)



MSW Analysis and Characteristics in 2010



Policies and Programs

Creation of supportive institutional system

Solid Waste
Management Board
(SWMB)

- Provide long-term vision, strategic actions, political leadership, adopt necessary financial, institutional and legal system and coordinate the implementation

Barangay Solid Waste
Management Committee
(BSWMC)

- Formulate SWM programme, implement separated waste collection, establish MRF and composting, allocate resources, coordinate the implementation.



Policies and Programs

Implementation of No segregation No Collection Policy

URGENT



**NO SEGREGATION
NO COLLECTION**



MALATA SALIN SA PASAON UTANON DAHON PAKET SA PUTAS PAPEL TINA-E SA ISDA HUGAW SA HAYOP CARTON	D-MALATA PLASTIC BAGS TINDER O PLASTIC STRAW PUTOS SA ICE WATER JUNK FOODS SCOTCH TAPE STYROFOAM TETRA PACKS	RESIDUAL NAPKINS DIAPERS TRAPO BATTERY FLOURESCENT BOTILYA NGA DI MAGAMIT
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BALAOD SA REPUBLIC ACT 9003
Clean Air Act 8749 ug CITT ORDINANCE 1361 UG 2022

MGA GINADILI:

- PAGLABAY UG MGA BASURA SA MGA PUBLIKONG LUGAR.
- ANG DILI PAGLAIN-LAIN O PAGBAHIN-BAHIN SA MGA BASURA.
- PAG SAGOL-SAGOL SA MGA HAGKALAIN-LAIN NGA BASURA.
- GINADILI ANG BASURA NGA MAKATAG S KA METROS PALIBOT SA MGA PARIL O KORAL SA MGA BALAY O "BUILDING".
- MGA LUGAR PATIGAYONAN KINAHANGLAN DUNAY SUDLANAN SA MGA BASURA UG DILI MAKASAMOK SA MGA TAGONG LUMALABAY.
- PAGLUWA, PAGPANGIMI, PAGKALIBANG SA PUBLIKONG LUGAR.
- ANG PAGPAGAWAS SA BASURA SA DILI PA TAKDANG ORAS O SCHEDULE.
- PAGSUNOD SA BISAN UNSANG BASURA, LABI NA ANG PLASTIC UG GOMA.
- PAGLABAY SA BISAN UNSA NGA BASURA SA MGA SAPA UG KANAL.

MONDAY, WEDNESDAY, FRIDAY & SUNDAY

MALATA OR BIODEGRADABLE WASTE UG NILAHİ NGA RESIDUAL/SPECIAL WASTE

TUESDAY, THURSDAY & SATURDAY

DILI MALATA – NON BIODEGRADABLE WASTE UG NILAHİ NGA RESIDUAL/SPECIAL WASTE

MGA SILOT OG MULTA

*Compromise Fee: P500.00-5,000.00
 *Usa (1) hangtud unom ka bulan nga pagkalibanggo depende sa desaloyon sa korte
 Alang sa mga pangutana o midamo palihug tawag sa: CESET tel. 2551685, 2563108 DPS office 2329271

SCHEDULE SA PAG KOLEKTAR!!!

Formation of new field staff

- Cebu Environmental Sanitation Enforcement Team (CESET) for carrying out information/ environmental education and enforcement of laws.
- Barangay Environmental Officers (BEOs) for environmental education, establish and supervise MRF and composting facilities.



Policies and Programs

Promotion of composting for organic waste recycling



- Backyard composting (effective education tools, interest to join the program and strong follow-up mechanism)



- Barangay composting (waste separation, finding suitable land, technical know-how, and cooperation of citizens)



- Business enterprises (finding lands, initial capital, difficulty in covering costs only from compost incomes)

Policies and Programs

Encourage community-based and private sector recycling programmes



Waste recycling project in Barangay Luz



Waste recycling in EVO private MRF



Proposed Activities under the CCAC

- Implementation of waste separation at source
- Promotion of composting at medium and larger-scale (business opportunities)
- Improvement of final disposal site
- Building partnership for planning and implementation of the Integrated Solid Waste Management (ISWM) system for achieving SLCP reduction
- Learn and share the experience and good practices through city-to-city exchange



Conclusions and Next Steps

- Develop a work plan to implement the action plan in partnership with IGES and other key stakeholders
- Finding financial support from its own sources and other international programmes and donors to implement the action plan
- Build the capacity of key stakeholders and set institutional structure to effectively implement the work plan
- Conduct city-to-city exchange programs and technical workshops with mentor cities to build the capacity of stakeholders to implement the action plan.

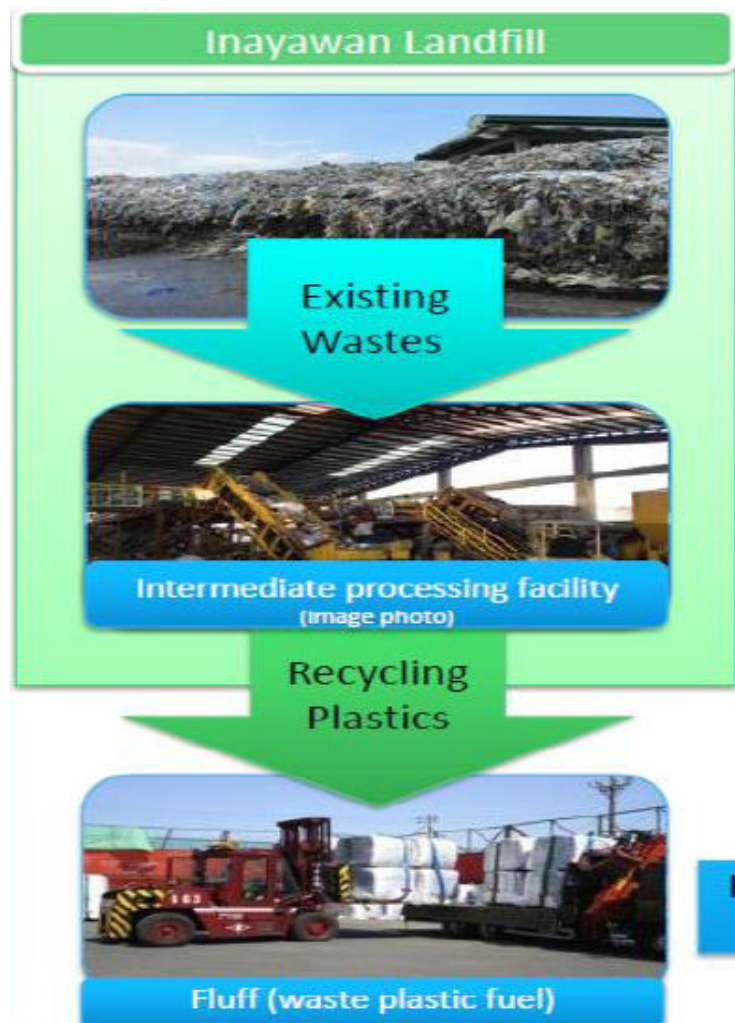


What are the effective knowledge management strategies for municipalities to address social, economic, and environmental benefits of SLCP mitigation through sustainable waste management?

1. Promote knowledge sharing among barangays (the smallest administrative division in the Philippines, similar to a village) to enhance capacity to implement the “No Segregation, No Collection Policy” particularly in the ff. areas:

- Establishment of environmental officers in each barangays;
- Financial and technical support for the establishment of Materials Recovery Facilities (MRF);
- Promotion of city-wide composting and a sustained information-education campaign through the Kitakyushu-supported Community-based Solid Waste Management. With organic waste pegged at 67% of the daily average waste stream of 500 tonnes per day, this translates to a potential volume of 335 tonnes of Municipal Solid Waste (MSW) diverted from landfills.
- Dissemination of information on successful multi-stakeholder partnerships.

What are the effective knowledge management strategies for municipalities to address social, economic, and environmental benefits of SLCP mitigation through sustainable waste management?



2. Collate and create a data base of information on existing pilot projects on plastic waste recycling.

- Plastic Waste Material Recycling System – a partnership with the Nishihara Corp. in Kitakyushu City.
- Intermediate Plastic Waste Processing Facility in the City-owned landfill – a partnership with JICA and Yokohama-based Mansei Recycle Systems Co. Ltd.

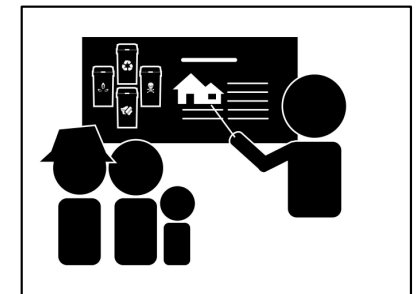
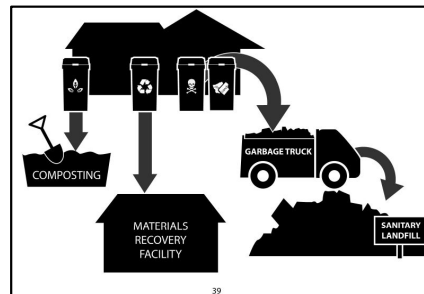


What are the effective knowledge management strategies for municipalities to address social, economic, and environmental benefits of SLCP mitigation through sustainable waste management?

3. Closely coordinate/collaborate with the private sector, scientific and research institutions, and the Regional Ecology Center (the regional technical arm of the National Solid Waste Management Commission) to strengthen data and information base on best practices, available technologies and models

What are the innovative partnership options to enhance the role of both municipalities and private sector in mitigating SLCP in waste sector?

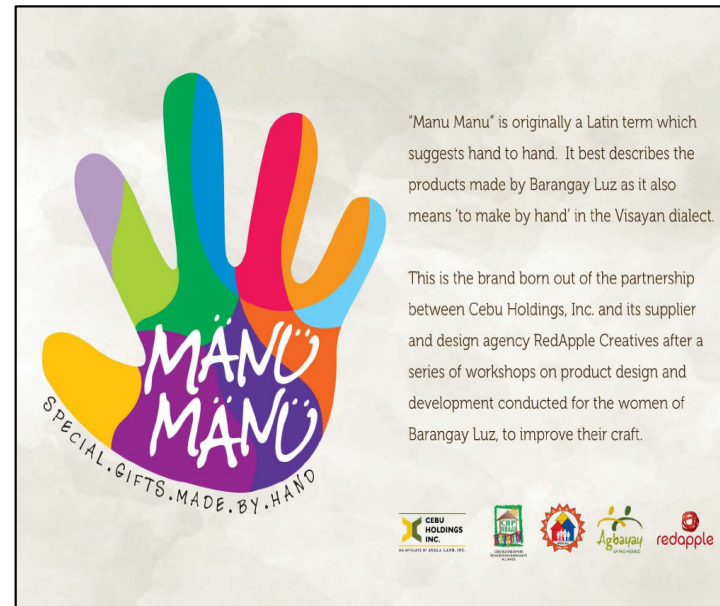
1. Legal basis for “**greater private sector participation in SWM**”: Republic Act No. 9003, Sections 2 and 17.
2. The Cebu City Government accepts project proposals from the private sector for a partnership in solid waste management. Barangays are allowed under the Local Government Code to do the same.



What are the innovative partnership options to enhance the role of both municipalities and private sector in mitigating SLCP in waste sector?

3. Example of Barangay-based partnership:

- Partnership of the Cebu Holdings, Inc. (CHI) with neighboring barangays to establish a waste collection system, composting project, and recycling.



What are the innovative partnership options to enhance the role of both municipalities and private sector in mitigating SLCP in waste sector?

4. City-level partnerships:

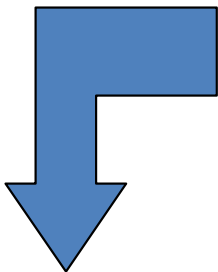
- Partnership with Bio-Nutrient Waste Management Inc. to process market wastes
- Partnership with EVO Ventures to process waste plastics.



What are the innovative partnership options to enhance the role of both municipalities and private sector in mitigating SLCP in waste sector?

5. International Partnerships:

- Community-based Solid Waste Management System that promotes City-wide composting – a partnership with Kitakyushu City;
- Plastic Waste Material Recycling System – a partnership with the Nishihara Corp. in Kitakyushu City.
- Intermediate Plastic Waste Processing Facility in the City-owned landfill – a partnership with JICA and Yokohama-based Mansei Recycle Systems Co. Ltd.



How can we efficiently operationalize at municipal level a successful triangular cooperation between municipal authority, private sector and scientific and research institutions for (a) science-based policy making towards mitigating SLCPs in waste sector? and (b) strengthen data/info base in monitoring & evaluating the impact of municipal waste management policies & programmes in mitigating SLCPs?

1. The Cebu City Government enters into sister-city cooperation through the signing of a Memorandum of Understanding (MOU).
2. Memorandum of Agreements may also be signed with other cities, the private sector and research institutions.
 - Example: MOA for a Rapid Assessment of E-Waste Management in Cebu City



Figure 6: Signing of a MOA between Cebu City and other key partners



Thank you for your attention