

CEBU (PHILIPPINES)

General information

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| Area: | 326 km ² |
| Population: | 0.72 million |
| National GDP per capita: | USD 3,971 |
| Total income: | PHP 1257 million (USD 24 million) |

Solid waste generation

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| Total generation: | 511 ton/day |
| Waste generation per capita: | 0.71kg/person · day |
| Waste source: | 57% residential, 43% non-residential |

Solid waste management

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| Collection rate: | 80% |
| Recycling: | Scavengers (200-300 persons) have developed a cooperative and entered into a MoA with the city government. Cebu Department of Public Services and NGOs also carry out separation at source. |
| Composting: | 1 ton/day is collected from market |
| Final treatment: | Landfill (capacity of 938,400m ³ ; lifetime of 6-7 years) |
| Expenditure: | In 2000, PHP 76 million (USD 1.4 million) was appropriated for SWM, approximately 6.3% of the total expenditure. |

Major challenges and strategies

Based on an annual 2% and 4% growth rate for residential and non-residential waste, respectively, Cebu city forecasts that they will have to manage 275,573 tons of waste per year by 2010, with a daily average of 399 and 356 tons for residential and non-residential waste, respectively.

Current challenges for Cebu include a weak institutional and organizational system for solid waste management, and problems in the upper waste stream (inefficient garbage collection due to lack of vehicles, lack of waste segregation and recycling at source, small revenue from solid waste collection charges), as well as problems downstream such as insufficient sanitary landfill operation and prohibition of incineration under the Clean Air Act of Philippines. Major issues can be identified as collection and disposal capacity, and institutional and regulatory arrangements. Increases in solid waste will place further pressure on collection and disposal. Institutional and regulatory arrangements are required to improve collection and disposal capacity. User charges, separation at source, and recycling, including informal waste pickers, are major challenges requiring a good regulatory framework and effective implementation.

Cebu has suggested a few steps to overcome these challenges. These include:

- (i) Institutional capacity building through various training programs
- (ii) Public information and awareness by involving NGOs
- (iii) Promotion of waste segregation at source
- (iv) Improvement in the practices of waste separation and recycling at disposal
- (v) Management of medical waste by the private sector and industrial waste management with the involvement of Chambers of Commerce
- (vi) Promotion of composting and recycling with the help of agricultural department
- (vii) Energy conservation and construction of biogas digester
- (viii) Efficient garbage collection system by acquiring new equipment and vehicles.

Successful cases to introduce recycling and composting, such as Nonthaburi (Thailand), can be of reference in reducing pressure on the final disposal site and generate revenue to provide motivation for communities and the staff to intensify activities. Additionally, the feasibility of the "Fukuoka Method" (Japan) could be studied in reference to final disposal techniques. Using the Kitakyushu Initiative Network, potential to acquire training for the implementation of this technique may be possible, as well as coordination with donors to support this method. However, the city may need to improve its financial position by adapting realistic user charges, as Nonthaburi is doing.