



Ecological Solid Waste Management in the Community

What is Solid Waste?



Solid wastes are any discarded
(abandoned or considered waste-like) materials.

Type of Solid Waste:



Household waste



Industrial waste



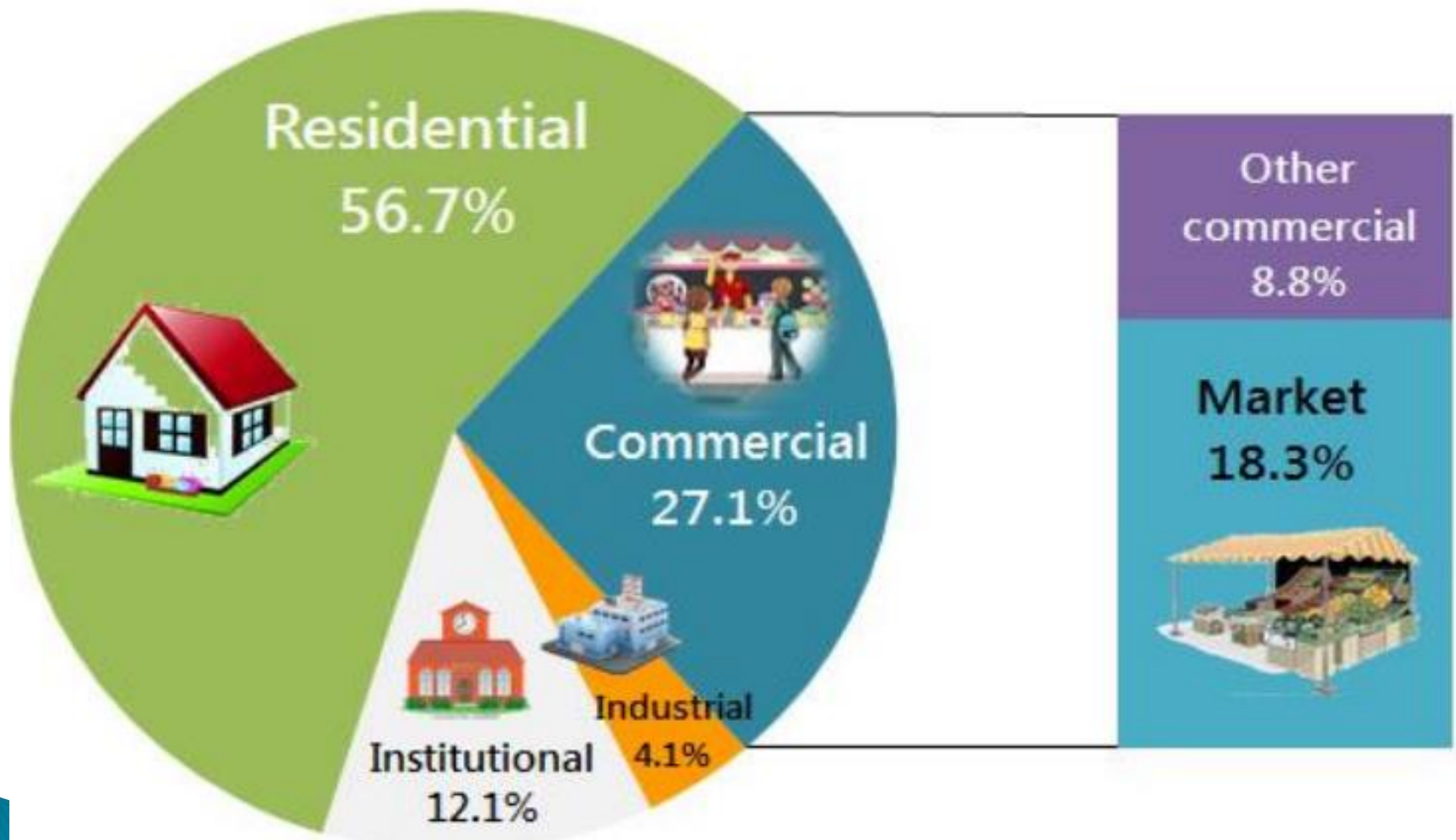
Biomedical/Hospital waste

Four broad categories of garbage

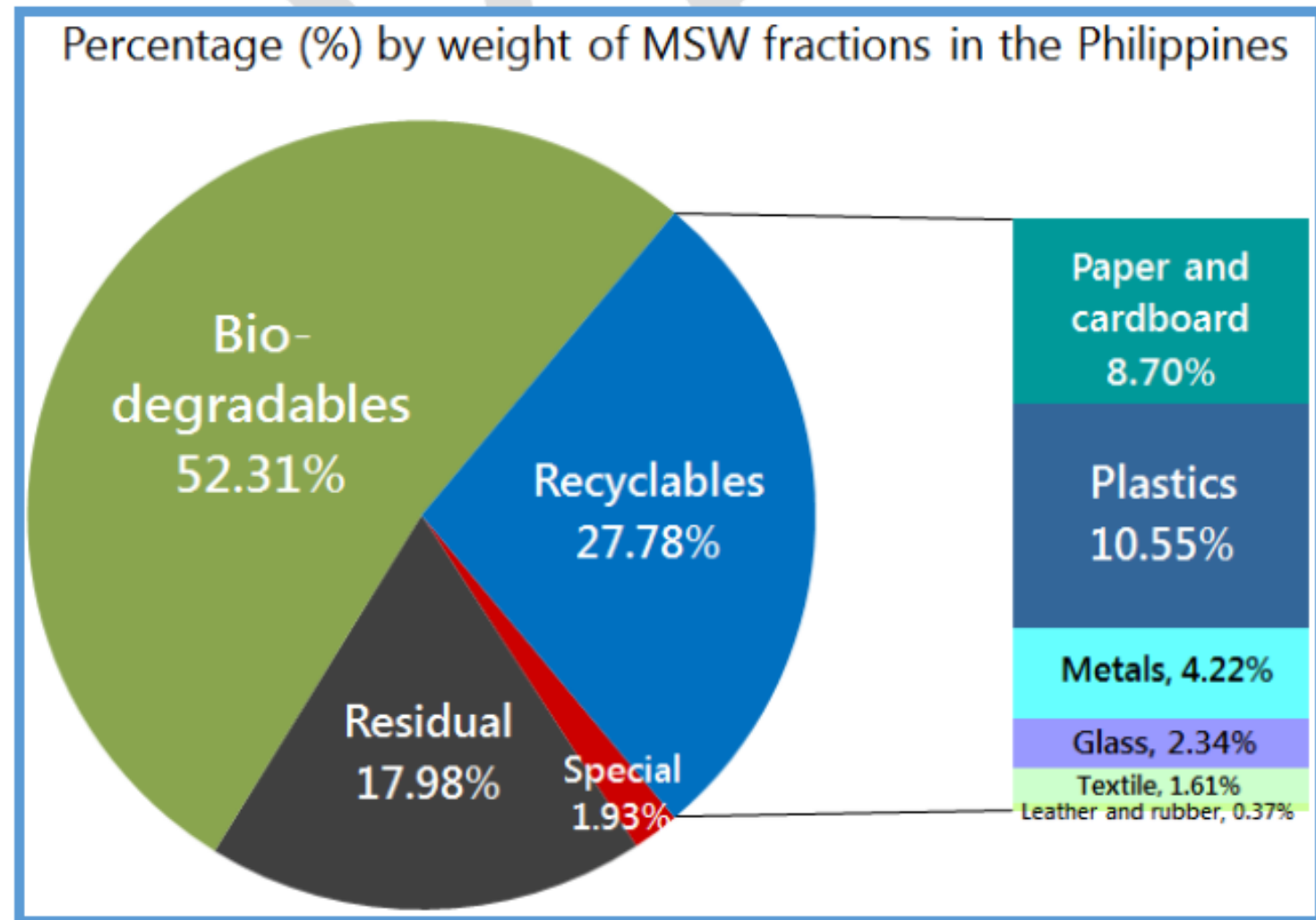
- 1.Organic waste: Kitchen waste, vegetables, flowers, leaves, fruits
- 2.Toxic waste: Old medicines, paints, chemicals, bulbs, spray cans, fertilize, pesticide containers, batteries, shoe polish
- 3.Recyclable: Paper, glass, metals, plastics
4. Soiled: Hospital waste such as cloth with body fluids



Sources of Municipal Solid Waste in the Philippines (2008–2013)

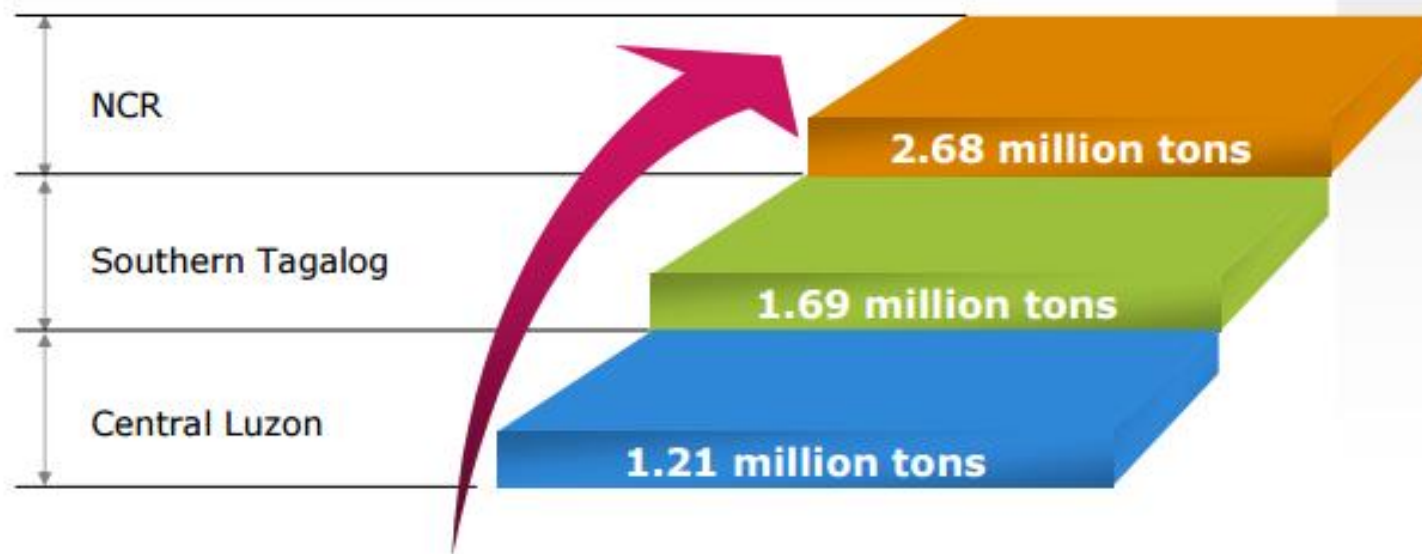


Composition of disposed solid waste in the Philippines (2008–2013)



Projection of Waste Generation

The 2007 figures showed that the National Capital Region (NCR) has the highest waste generation at 2.86 million tons per year, followed by Southern Tagalog and Central Luzon at 1.69 million tons and 1.21 million tons, respectively.



In Metro Manila –
74% of total solid waste is domestic waste
25% is commercial waste
1.3% is from other sources
(JICA)



Laguna de Bay Situationer

- ▶ “Data shows that 60 percent of the estimated 8.4 million people staying around the Laguna de Bay dumped their solid and liquid wastes indirectly to the lake through its 21 tributaries” (UP Open University, n.d).



- “Around 10 percent of the 4,100 metric tons of wastes generated by Metro Manila residents are dumped into the lake as well.” (UP Open University, n.d).

Impacts of Solid Wastes on Health

Group at risk:

- People in areas where there is no proper waste disposal method
- People living close to a waste dump
- Children
- Waste Workers
- Animals



Impacts of Solid Wastes on Health

- Risk of injury and infection
- Illnesses (low birth weight, cancer, congenital malformations , neurological disease, nausea and vomiting, and respiratory diseases)



Impacts of Solid Wastes on Environment



Image source: Estorba and Llanto, 2014

Damaged Mangroves sprouts due to solid wastes.



Image source: http://gigapica.geenstijl.nl/2009/05/mooi_milieu.html

Domestic wastes contributed in making Pasig River “biologically dead” (Manila Times, 2008)

Impacts of Solid Wastes on Environment

- ▶ “The accumulation of wastes in rivers also triggers the growth and eventual decomposition of algal blooms, leading to oxygen deprivation of marine bodies or to fish kill.” (National Defense College of the Philippines, 2013)”



Fish kill in Batangas due to oxygen deprivation.

Image source: Wallyn's blogspot.

Impacts of Solid Wastes on Environment



Image source: Quierosaber's blog



Image source: windsorstar.com

Flooding situation in different parts of Metro Manila aggravated by solid wastes, clogging the waterways.

Innovative activities to help manage solid wastes in homes, schools and communities




Current actions on Solid Waste Management

- ▶ Sachet Recovery Project



Post-consumer materials to collect:

- *Personal and household items:*

- toothpaste
 - shampoo
 - conditioner
 - facial cleanser
 - deodorant
 - powdered laundry soap
 - fabric conditioner
 - dish washing liquid soap
 - bath soap
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Sachets Converted into pavers or bricks
(1 70 kilos = 1, 000 bricks)

Current actions on Solid Waste Management

- ▶ Awareness Raising



Current actions on Solid Waste Management

► Awareness Raising



Current actions on Solid Waste Management

- ▶ Arts and Crafts



Current actions on Solid Waste Management

► Recycling and Composting



Recycling and Reuse



Recycling involves the collection of used and discarded materials, processing these materials and making them into new products.

Advantages of Recycling

- less utilization of raw materials
- reduces environmental impacts
- waste treatment and disposal
- makes the surroundings cleaner and healthier
- saves on landfill space
- saves money
- reduces the amount of energy required to manufacture new products

In fact recycling can prevent the creation of waste at the source.




Composting



natural process of decomposition of organic waste that yields compost, which is rich in nutrients and an excellent medium for growing plants



Benefits of Composting

- ensures the waste is not carelessly thrown and left to rot
 - recycles the nutrients
 - reduce the amount of disposable garbage
 - organic fertilizer can be used instead of chemical fertilizers
 - increases soil's ability to hold water
 - helps the soil retain more of the plant nutrients
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What you can do to reduce solid waste

- Segregate the waste in the house.
- Dig a compost pit in your garden.
- Do not throw paper and other wrappings here and there.
- Sell all the recyclable items to the junkshop, or the Municipal Refuse Facility.



What you can do -

- Refuse

Instead of buying new containers from the market, use the ones that are in the house. Refuse to buy new items though you may think they are prettier than the ones you already have.



What you can do -

- Reuse

Do not throw away the soft drink cans or the bottles; cover them with homemade paper or paint on them and use them as pencil stands or small vases.



What you can do -

- Recycle

Use shopping bags made of cloth or jute, which can be used over and over again.

Segregate your waste to make sure that it is collected and taken for recycling.



What you can do -

- Reduce

Reduce the generation of unnecessary waste, e.g. carry your own shopping bag when you go to the market and put all your purchases directly into it.



THANK YOU!

