

F5. SOLID WASTE MANAGEMENT

Waste can be categorized based on material, such as plastic, paper, glass, and metal and organic waste. It may also be based on hazard potential, including radioactive, flammable, infectious, toxic or non-toxic. Regardless of the origin, content or hazard potential, solid waste must be managed systematically to ensure environmental best practices.

Like its neighboring municipalities, the method of disposal of Gloria, i. e., open dumping, burning, etc., is an unacceptable way of solid waste disposal. In the absence of available data on per capita solid waste generation rate, the figure of 0.40 kg/capita/day, which is typical in rural municipalities, is used in projecting waste generation and landfill area requirements.

In the next ten years, solid waste generation is estimated at 164,000 cu.m. This will require a landfill area of about 2.73 hectares for waste disposal. Considering the present dumpsite area of the municipality located in Barangay Manguyang that has an area of three hectares, solid waste generation of the municipality in the next ten years can still be accommodated.

Table SO-18. Solid Waste Generation by Source, Year 2018

Source	Types of waste	Volume of solid waste generated (tons/day)	Volume of solid waste collected (tons/day)	Disposal methods/ treatment facilities	Disposal site
Domestic	Food waste, paper, cardboard, plastics, textiles, leather, yard waste, wood, glass, metals, ashes and household hazardous waste	12.89	1.50	Collected by Municipal Garbage truck Burned, segregated, composted, recycled, dumped (open/close pit)	Mun. Controlled dumpsite
					Individual backyards
Commercial	Paper, cardboard, plastics, wood, food waste, glass, metals, special waste and hazardous waste	1.25	1.20	Collected by Municipal garbage truck Burned, segregated, composted, recycled, dumped (open/close pit)	Mun. Controlled dumpsite
Industrial	Housekeeping wastes, packaging, food wastes, construction materials, wood, rice hull, ashes and hazardous waste	0.50	0.41	Collected by Municipal garbage truck Burned, segregated, composted, recycled, dumped, (open/close pit)	Mun. Controlled dumpsite
Hospital	Disposable needles, syringes, blades, broken glasses, body fluids, human flesh/parts, medicine bottles, waste from office, kitchen, rooms including bed linen	0.03	0.02	Collected by Municipal garbage truck segregated, composted, recycled, toxic medical wastes are buried and cemented	Mun. Controlled dumpsite
Institutional	Same as commercial	1.53	1.07	Collected by Municipal garbage truck Burned, segregated, composted, recycled, dumped (open/close pit)	Mun. Controlled dumpsite
Others	Same as domestic, commercial and industrial	0.13	0.08	Collected by Municipal garbage truck Burned, segregated, composted, recycled, dumped (open/close pit)	Mun. Controlled dumpsite
TOTAL		16.325	4.28		

Source: Municipal Environment and Natural Resources Office, 2018

The Municipality of Gloria generates volume of solid waste coming from different sources. These garbages are collected every day. Collected domestic waste in the Municipality of Gloria such as food waste, paper, cardboard, plastic, textile, leather and other household hazardous waste reach up to 1.50 tons a day. Health center waste has the least volume of solid waste collected with 0.02 tons a day. Different solid wastes are dumped in the municipal controlled dumpsite and individual backyards.

Collected solid waste materials are disposed and treated through burning, segregation, composting, recycling and/or dumping.

Table SO–19. Methods of Solid Waste Disposal/Treatment, Year 2014

Methods	Quantity (Total city/municipal solid waste generated)	No. of household served	Agency Responsible
1. Collected and disposed to:			MEO / MENRO / MHO
Open Dump	0	0	
Controlled Dump	3,825.04	1,396	
Sanitary Landfill	0	0	
2. Composting	3,994.56	1,314	
3. Recycling	7,606.41	1,249	
4. Not collected:			
Burned	297,121.95	8,143	
Dumped in individual open pit (not burned)	3,313.03	893	
Dumped in individual closed pit	2,047.92	552	
5. Throwing in the river	1,244.65	341	

Source: Municipal Environment and Natural Resources Office, 2014

How one is to go about waste disposal is something that most governments are trying to raise awareness about. Though collection, treatment of solid wastes has always been the duty of civic authorities, the amount of solid wastes in our societies and cities are growing at an alarming rate.

Today, many communities are trying to spread awareness among citizens on the responsible ways of reducing waste and the importance of reuse and recycling. Reducing the use of plastic bags, opting for open air fresh produce in paper bags instead of packaged items, reducing use of paper and helping to promote initiatives which use recycled and reused materials in their manufacturing processes are some ways in which the society can help reduce solid waste from increasing in our communities.

The Municipality of Gloria uses different methods of solid waste disposal like controlled dumping, composting, recycling and others. Solid waste generated has reached 319, 153.56 tons last 2014 and 13,888 households are served.

Table SO–20. Wastewater Generation by Source and Treatment/Disposal Methods, Year 2017

Source	Volume of wastewater generated (tons/day)	No. / Percentage connected to a central sewerage system	Disposal methods/ treatment facilities	Disposal site
Domestic	no data available	no data available	no data available	no data available
Commercial	no data available	no data available	no data available	no data available
Industrial	no data available	no data available	no data available	no data available
Hospital	no data available	no data available	no data available	no data available
Others	no data available	no data available	no data available	no data available

Source: Municipal Environment and Natural Resources Office, 2017

Waste water generation is still non-operational in the Municipality of Gloria. The treatment and disposal methods depend on the operation of the vertical helophyte filter system installed and built at Gloria Public Market in Maligaya.

DEVELOPMENT NEEDS

Solid wastes are not properly managed resulting to dirty surrounding, air and water pollution. This is caused by majority of the residents & establishments are not practicing waste segregation; they still practice mixed waste disposal. There is a need to impose strict and serious implementation of “No Ningas Cogon” in waste segregation and enforcement of RA & municipal environment code, Article VIII, Section I (annex A).