

**Supplementary Material (SM)**

**A Study of Policy Implementation and Community Participation  
in the Municipal Solid Waste Management in the Philippines**

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**SM 1 Stakeholders and their roles as prescribed by RA 9003**

<b>Stakeholders</b>	<b>Functions/Roles</b>
National Solid Waste Management Commission - National Ecology Center	Oversee the implementation of solid waste management plans and prescribe policies to achieve the objectives of RA 9003. Provide consulting, information, training, and networking services for the implementation of the provisions of RA 9003.
Department of Environment and Natural Resources	Issues rules and regulations to implement the law, provide support to LGU's and identify the progress of the implementation of the law.
Department of Trade and Industry	Facilitate waste recycling and re-use.
Local Government Units  - Barangay	Implement and enforce the provisions of the law within their respective jurisdictions. Conduct segregation and collection of solid waste (biodegradable, compostable, and reusable wastes). They are also the overseers of the implementation of the reduce, reuse, and recycle program of the municipality. They propose education and awareness programs, penalties, and fines schemes as well as an incentive mechanism to the LGU.
- Municipality/City	Collect non-recyclable materials and special wastes.
- Provincial Solid Waste Management Board	Develop and implement a provincial solid waste management plan from the submitted solid waste management plans of the respective city and municipal solid waste management boards.
- City/Municipal Waste Management Board	Prepare, submit, and implement a plan for the safe and sanitary management of solid waste generated in areas under its geographic and political coverage.
- Multi-purpose cooperatives and associations	Undertake activities to promote the implementation and/or directly undertake projects in compliance with the provisions of the law.
Household, institutional, industrial, commercial and agricultural waste sources	Conduct waste segregation.

**SM 2 SWMP Components as assessed by residents**

<b>Solid waste management</b>	<b>Lahug</b>		<b>Talamban</b>		<b>Guadalupe</b>		<b>San Nicolas</b>		<b>Overall</b>	
	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>
<b>Segregation of wastes</b>										
Practice of waste segregation at home	3.32	AT	3.92	AT	2.35	OC	2.64	MT	3.06	MT
<b>Collection and transport of wastes</b>										
The garbage collectors are wearing personal protective equipment.	2.65	MT	3.64	AT	1.99	OC	2.72	MT	2.75	MT
The garbage collection is on-time.	2.73	MT	3.37	AT	1.93	OC	2.92	MT	2.74	MT
Garbage trucks have covers and didn't bring foul odor.	2.64	MT	3.22	MT	1.86	OC	2.05	MT	2.44	OC
<b>Composite mean</b>	<b>2.68</b>	<b>MT</b>	<b>3.41</b>	<b>MT</b>	<b>1.93</b>	<b>OC</b>	<b>2.56</b>	<b>MT</b>	<b>2.64</b>	<b>MT</b>
<b>3R Program (reduce, reuse, recycle)</b>										
Practice recycling at home.	3.01	MT	3.69	AT	2.23	OC	2.26	OC	2.80	MT
Patronize recycled products and use of reusable shopping bags.	2.62	MT	3.17	MT	2.29	OC	2.08	OC	2.54	MT
Barangay encourage local makers to produce goods from post-consumer materials.	2.92	MT	2.90	MT	2.17	OC	2.32	OC	2.58	MT
Go to the junkshop or drop-off center (MRFs) for 3Rs.	2.72	MT	2.32	OC	1.97	OC	2.04	OC	2.26	OC
<b>Composite mean</b>	<b>2.82</b>	<b>MT</b>	<b>3.02</b>	<b>MT</b>	<b>2.17</b>	<b>OC</b>	<b>2.18</b>	<b>OC</b>	<b>2.54</b>	<b>MT</b>
<b>Composting</b>										
Practice composting at home.	2.80	MT	3.62	AT	1.89	OC	1.82	OC	2.53	MT
<b>Incentives</b>										
Incentives are provided for SWM participants.	2.65	MT	2.76	MT	1.88	OC	1.97	OC	2.31	OC
<b>Penalties and fines</b>										
Strict in implementing the health and environment ordinances	3.00	MT	3.72	AT	2.38	OC	2.87	MT	2.99	MT
Strict in imposing the penalties and sanctions.	2.99	MT	3.81	AT	2.53	MT	2.79	MT	3.03	MT
<b>Composite mean</b>	<b>2.99</b>	<b>MT</b>	<b>3.77</b>	<b>AT</b>	<b>2.46</b>	<b>OC</b>	<b>2.83</b>	<b>MT</b>	<b>3.01</b>	<b>MT</b>
<b>Public education and information</b>										
Barangay provides information, education or awareness activities.	3.20	MT	3.66	AT	2.49	OC	3.10	MT	3.11	MT

**SM 3 SWMP Components as assessed by the Barangay Environmental Officers**

<b>Segregation of wastes</b>	<b>Lahug</b>		<b>Talamban</b>		<b>Guadalupe</b>		<b>San Nicolas</b>		<b>Overall</b>	
	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>	<i>WM</i>	<i>VI</i>
Residents are provided with separate waste containers.	3.33	GE	3.45	GE	1.00	NC	1.00	NC	2.20	LE
The solid waste containers are properly marked.	3.22	ME	3.39	GE	1.00	NC	1.00	NC	2.15	LE
<b>Composite mean</b>	<b>3.28</b>	<b>ME</b>	<b>3.42</b>	<b>GE</b>	<b>1.00</b>	<b>NC</b>	<b>1.00</b>	<b>NC</b>	<b>2.17</b>	<b>LE</b>
<b>Collection and transport of solid waste</b>										
All collectors and other personnel are equipped with personal protective equipment.	2.77	ME	3.24	ME	3.00	ME	2.00	LE	2.75	ME
Necessary trainings are given to the collectors and personnel.	3.23	ME	2.81	ME	3.00	ME	2.00	LE	2.76	ME
Collection is done in a manner which prevents damage to the container and spillage or scattering.	2.56	ME	3.27	GE	2.00	LE	2.00	LE	2.46	LE
Separate garbage trucks are used for specific type of waste.	2.21	LE	2.46	LE	1.00	NC	1.00	NC	1.67	NC
There is a definite schedule for garbage collection.	2.79	ME	3.62	GE	3.00	ME	3.00	ME	3.10	ME
Transfer stations are designed for efficient waste handling capacity.	3.26	GE	3.32	GE	3.00	ME	2.00	LE	2.90	ME
<b>Composite Mean</b>	<b>2.80</b>	<b>ME</b>	<b>3.12</b>	<b>ME</b>	<b>2.50</b>	<b>LE</b>	<b>2.00</b>	<b>LE</b>	<b>2.61</b>	<b>ME</b>
<b>3R Program (reduce, reuse, recycle)</b>										
There is a separate collection system or convenient drop-off locations for recyclable materials.	2.31	LE	2.42	LE	1.00	NC	1.00	NC	1.68	NC
Prohibition on the use of Non- Environmentally Acceptable Packaging	3.19	ME	3.22	ME	1.00	NC	2.00	LE	2.35	LE
There is a market opportunity for recycled products.	2.21	LE	2.34	LE	1.00	NC	1.00	NC	1.64	NC
Presence of Materials Recovery Facility	3.22	ME	3.25	ME	1.00	NC	2.00	LE	2.37	LE
<b>Composite mean</b>	<b>2.73</b>	<b>ME</b>	<b>2.81</b>	<b>ME</b>	<b>1.00</b>	<b>NC</b>	<b>1.50</b>	<b>NC</b>	<b>2.01</b>	<b>LE</b>

**SM 3 SWMP Components as assessed by the Barangay Environmental Officers (continued)**

Segregation of wastes	Lahug		Talamban		Guadalupe		San Nicolas		Overall	
	WM	VI	WM	VI	WM	VI	WM	VI	WM	VI
<b>Composting</b>										
Promotion of composting.	3.19	ME	3.16	ME	1.00	NC	1.00	NC	2.09	LE
<b>Facilities for final disposal</b>										
Prohibition of using open dumps for solid wastes.	2.21	LE	2.30	LE	1.00	NC	1.00	NC	1.63	NC
Convert its open dumps into controlled dumps.										
Controlled dumpsites shall have adequate soil cover.	2.14	LE	2.19	LE	1.00	NC	1.00	NC	1.58	NC
The SLF or dumpsite operator shall provide adequate supervision of a sufficient number of qualified personnel.	2.09	LE	2.13	LE	1.00	NC	2.00	LE	1.81	LE
<b>Composite mean</b>	<b>2.15</b>	<b>LE</b>	<b>2.21</b>	<b>LE</b>	<b>1.00</b>	<b>NC</b>	<b>1.33</b>	<b>NC</b>	<b>1.67</b>	<b>NC</b>
<b>Incentives</b>										
Rewards, monetary or otherwise, are provided.	3.17	ME	3.22	ME	1.00	NC	2.00	LE	2.35	LE
Incentive programs and appreciation of barangay efforts.	2.62	ME	2.74	ME	1.00	NC	2.12	LE	2.12	LE
<b>Composite Mean</b>	<b>2.90</b>	<b>ME</b>	<b>2.98</b>	<b>ME</b>	<b>1.00</b>	<b>NC</b>	<b>2.06</b>	<b>LE</b>	<b>2.23</b>	<b>LE</b>
<b>Penalties and fines</b>										
Penalties and fines were given to the violators.	3.39	GE	3.65	GE	1.00	NC	2.00	LE	2.51	ME
<b>Public education and information</b>										
There is a sustained Information, Education and Communication campaign	3.22	ME	3.26	GE	1.00	NC	2.00	LE	2.37	LE
<b>Financing solid waste management</b>										
Ensuring that enough funds is allocated for the solid waste management.	2.52	ME	2.75	ME	2.00	LE	2.00	LE	2.32	LE