

Chapter 5

Inter-Municipal Cooperation on Solid Waste Management in ASEAN:

The Case of the Philippines

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Abstract

The solid waste disposal system or environmental management system is one of the devolved functions to the local government units (LGUs) in the Philippines as cited in the Republic Act 7160 (RA 7160), also known as the Local Government Code of 1991. This mandate has posed a huge challenge to the LGUs considering their capacity both in terms of the technical and financial aspects. Hence, the collaboration with the non-state actors like the private sectors has been one of the recent trends or strategies on addressing waste management concerns. Another approach being utilized now is the forging of cooperation between and among LGUs in delivering public services like the solid waste management. This report explores the possibility of the inter-municipal cooperation on waste management in the Philippines. It is composed of five parts which include the introduction, the legal bases for inter-municipal cooperation or clustering and its contribution to a more responsive delivery of public services, the status of inter-municipal cooperation on solid waste management in the Philippines, the challenges to inter-municipal cooperation, and the opportunities and possible recommendations for a more effective and sustainable inter-municipal cooperation.

Keywords: Inter-Municipal Cooperation, Solid Waste Management, Philippines

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1. Introduction

The solid waste disposal system or environmental management system is one of the devolved functions to the local government units (LGUs) in the Philippines as cited in the Republic Act 7160 (RA 7160), also known as the Local Government Code of 1991. This mandate has posed a huge challenge to the LGUs considering their capacity both in terms of the technical and financial aspects. Hence, the collaboration with the non-state actors like the private sectors has been one of the recent trends or strategies on addressing waste management concerns. Another approach being utilized now is the forging of cooperation between and among LGUs in delivering public services like the solid waste management. Most of the governments have recognized “the comparative advantage of private companies in handling large infrastructure projects through management and technical expertise, access to capital and technology, and in the drive for efficiency (Fiszbein and Lowden 1999 as cited in ADB 2015).

On January 26, 2001, the Philippines’ Republic Act 9003 (RA 9003) also known as the Ecological Solid Waste Management Act of 2000, came into force in response to the growing problems on waste in the country. The Act declares the “policy of the state to adopt a systematic, comprehensive and ecological solid waste management program which shall ensure the protection of public health and environment” (Republic of the Philippines, RA 9003, Article 1, Section 2). It also prohibits the operation and establishment of open dumpsites upon coming into force of the Act. It further states that all open dumpsites should be converted into controlled dumpsites and that all controlled dumpsites should be closed within five years of the

Implementation of the Act. As an alternative, the construction of sanitary landfill (SLF) is allowed as a final disposal site for residual wastes (RA 9003, Sections 37, 40-42). It also mandates the segregation of solid waste at source (Section 21) and the creation of the material recovery facility (MRF) in every barangay or cluster of barangays (Section 32) and the establishment of common waste treatment and disposal facilities (Section 44).

However, based on the record of the NSWMC-EMB as of September 2018, there are only 141 operational SLFs and 30 SLFs undergoing construction and not yet operational among the total 1,634 cities and municipalities in the country (NSWMC-EMB, 2018). This data shows that there is still weak compliance in the RA 9003 especially in terms of constructing SLFs as a final disposal sites for residual wastes. Although there are some initiatives among LGUs to form a cluster in constructing SLFs, there are other political and social issues which pose a challenge in this kind of collaboration such as the political and terms of office of local government officials and the not-in-my-backyard (NIMBY) syndrome for hosting the SLF.

Sometimes, the lack of capacities at the local level hinders the ability to reap the full benefits of decentralization and local officials may not fully exploit other opportunities to deliver better service (ADB 2015). This report explores the possibility of the inter-municipal cooperation on waste management in the Philippines. It is composed of five parts which include the introduction, the legal bases for inter-municipal cooperation or clustering and its contribution to a more responsive delivery of public services, the status of inter-municipal cooperation on solid waste management in the Philippines, the challenges to inter-municipal cooperation, and the opportunities and possible recommendations for a more effective and sustainable inter-municipal cooperation.

2. Legal Bases for Inter-Municipal Cooperation on Solid Waste Management and the Delivery of Public Services

This section reviews the related laws and policies in the country which support the inter-municipal cooperation in the delivery of public services such as the solid waste management.

These include the following:

- a) The 1987 Constitution of the Republic of the Philippines cited that “local government units may group themselves, consolidate or coordinate their efforts, services, and resources for purposes commonly beneficial to them in accordance with law” (Article X, Section 13).
- b) The RA 9003 mandated that a Provincial Solid Waste Management Board should be established in every province and that it should “allow for the clustering of LGUs for the solution of common solid waste management problems” [Section 11 (12)]. In addition, Section 32 of this act cited that MRFs should be established in every barangay or cluster of barangays. This facility can be a barangay-owned or leased land or any open space suitable as determined by the barangay through its Sanggunian in accordance to the guidelines and criteria set by the Act. The MRF shall receive mixed waste for final sorting, segregation, composting, and recycling. The resulting residual wastes shall be transferred to a long-term storage or disposal facility or sanitary landfill (Section 32).
- c) Pursuant to Section 33 of the Republic of the Philippines Act 7160 (RA 7160), otherwise known as the Local Government Code of 1991, Section 44 of RA 9003

mandated all provinces cities, municipalities and barangays through appropriate ordinances “to consolidate, or coordinate their efforts, services, and resources for purposes of jointly addressing common solid waste management problems and/or establishing common waste disposal facilities”.

These laws and policies show that the gravity of the tasks entrusted to the LGUs and their limitations are acknowledged, hence, the collaboration or cooperation between and among LGUs and other sectors are encouraged. In the recent years, the public-private partnerships in developing Asia has expanded which reduce the risks and responsibilities of the state, lower fiscal costs, and widen access to quality public services (ADB 2015).

3. Status of Inter-Municipal Cooperation on Solid Waste Management in the Philippines

a) Types of Cooperation on Solid Waste Management

Based on the NSWMC database in 2015, the waste generation is 40,000 tons/day at the national level while 9,000 tons/day in Metro Manila. The waste generation per capita ranges from 0.32-0.71 at the national level while 0.71 in Metro Manila. In terms of waste collection efficiency, it ranges from 40% to 85% at the national level while 85% in Metro Manila (NSWMC database).

With regards to the compliance to the mandates of the RA 9003 such as the establishment of the MRF in every barangay or cluster of barangay and the construction of SLFs as a final disposal site for residual wastes, the NSWMC reported that they are still very low but at an increasing rate. Also, as shown in Tables 5-1 and 5-2, there are number of LGUs

sharing a common MRFs and or SLFs. These facilities are either privately managed or inter-government/inter-LGU partnerships (Table 5-3).

Table 5-1. Number of MRFs reported to NSWMC from 2010 to 2015

Number	Year					
	2010	2011	2012	2013	2014	2015
Number of MRFs in the Philippines	6,958	7,329	7,713	8,486	8,656	9,335
Estimated Percentage (%) of Barangays with MRFs	16.6%	17.4%	18.4%	20.2%	20.6%	22%
Number of Barangays/LGUs served by MRFs	7,938	8,323	8,843	9,634	10,327	12,607
Estimated Percentage (%) of Barangays served by MRFs	18.9%	19.8%	21.0%	22.9%	24.5%	30%

Source: NSWMC

Table 5-2. Key information on SLFs in the Philippines

Parameters	Year							
	2008	2010	2013	2014	2015	2016	2017	October 2018
Population of the Philippines	88,543,800	92,337,852	98,449,090	100,420,642	101,716,359	103,320,222	104,918,090	
Number of operating SLFs	21	33	72	86	101	118	135	144
Number of LGUs with access to SLFs	63	78	130	154	228	248	293	345
Percent of LGUs with access to SLFs	3.86%	4.77%	7.96%	9.42%	13.95%	15.17%	17.93%	21.11%

Source: NSWMC

Table 5-3. Types of Partnership (or Cooperation) on Solid Waste Management

REGI ON	Name of Cluster/ Facility	Type of Partnership	Partners	Type of Facility/ Location	Legal Instrument/ Date	Status
NCR	Navotas Sanitary Landfill	Private Enterprise utilized by LGUs	MMDA-LGU Navotas LGU Manila	SLF/Navot as MM	Memorandum of Agreement (MOA)/ 2005	Operational
1	Urdaneta City SLF	Inter-Government Executive Agreement	Urdaneta City-Municipality of Sta. Barbara	SLF/ Urdaneta City Pagasinan	Inter-Government Executive Agreement / 2011	Operational
III	Clark SLF	Private Enterprise utilized by LGUs	Lubao Guagua Apalit, San Fernando City Pampanga, Angeles, Moncada, Cabanatuan City	SLF With MRF	MOA	Operational
IV A	Pilotage SLF, San Pedro Laguna	Private Enterprise utilized by LGUs	San Pedro, Sta Rosa Los Banos and Carmona	SLF with MRF	Contract	Operational
VII	Bohol cluster	Inter-LGU partnership in the Province of Bohol	Bohol Province LGU- Alburquerque-Baclayon-Balilihan-Corella-Cortes-Dauis-Lila-Loboc-Maribohoc-Panglao-Sikatuna	SLF	Memorandum of Agreement (MOA)/ 2011	Operational
X	Camiguin Province Cluster/ LGUs Alliance Project	Inter-LGU partnership in Camiguin	Camiguin Province-Mambajao-Mahinog-Guinsiliban-Sagay-Catarman	SLF Mambajao, Camiguin	MOA	Operational
XII	Surallah Sanitary Landfill (South Cotabato Cluster Sanitary Landfill	Inter- LGU Partnership	Province of South Cotabato-Surallah-Banga-T'boli-Lake Sebu-Sto. Niño, Norala	Sanitary Landfill/ Municipality of Surallah, South Cotabato	MOA/ 2008 (among LGUs) MOA 2011 (Province South Cotabato and Surallah)	Operational

Source: EMB Regional Offices

As shown in Table 5-3, there are two common types of cooperation in managing solid waste in the country: the inter-government or inter-LGU partnership; and the private enterprise utilized by LGUs. Both types of cooperation use the Memorandum of Agreement (MOA) or Contract as the legal instrument for entering such kind of partnership in delivering waste management services.

b) Cases of Inter-Municipal Cooperation on Solid Waste Management and the Partnership Arrangement

At the National level's initiative, a report on Cost Sharing Framework for Solid Waste Management was developed in 2008 based on the results from regional consultations with the representatives from local government units and in consultations with concerned government agencies such as the Secretariat of the National Solid Waste Management Commission (NSWMC), the National Economic and Development Authority (NEDA), and the Municipal Development Fund Office (MDFO) under the Department of Finance (DOF). The Policy Governing Board of the DOF has approved the institutional arrangement with the MDFO and the loan portfolio in principle, however, the cost-sharing framework is still under review due to its budgetary implications. One of the proposed scenarios cited in this report was the cluster of LGUs would share a common facility. It cited that this option is more cost-efficient since the disposal cost per unit of solid waste is less for bigger and more sophisticated SLFs. However, the high transaction costs in clustering and the social acceptability of hosting a common facility could be a barrier. It further recommended that the national government should shoulder the additional 5% of the investment cost should the LGUs decide to form a cluster (NSWMC-EMB, 2008).

In the next pages, some examples of inter-LGU cooperation and privately managed SLFs being utilized by the LGU will be discussed.

The Surallah Cluster SLF, South Cotabato Province

One of the success stories of inter-LGU collaboration is the Surallah Cluster SLF in South Cotabato. This was initiated from the Provincial Office of South Cotabato since the financial involved for constructing SLF is too high for an LGU, the consolidated efforts among LGUs is better and more feasible option. The Memorandum of Agreement (MOA) for the Surallah Cluster Sanitary Landfill for Sustainable Solid Waste Management between the Province of South Cotabato represented by the Governor and the six (6) member municipalities represented by their Mayors was signed in 2009 but the facility has become operational since 2011. The Municipality of Surallah is the host LGU for the common SLF and it receives the residual waste generated from the member LGUs. It is a 6-hectare Cluster SLF and has a capacity of 75,000 cubic meters and estimated to last for 14 years (until 2024). It is located nine (9) kilometers away from the Surallah town proper and has its own leachate treatment facility by pond method. This Cluster SLF was a recipient of the *Galing Pook Award* in 2014 (Municipality of Surallah 10 Year Solid Waste Management Plan: 2015-2024). The MOA for the Surallah Cluster SLF was renewed in 2016 with the additional two (2) member municipalities.

In terms of the economies of scale, Tables 5-4 and 5-5 reveal that it is really more economical for a cluster SLF rather than for the individual SLF. As shown in Table 5-4, the required investment is P54,000 from the 6 LGUs in the scenario wherein they have to build their own SLF. But with the cluster SLF, the investment needed is only P15,000 with the

capacity of 30 tons per day (Table 5-5). Thus, with the cluster SLF, the LGUs can save huge amount which they can utilize to deliver other public services in the community.

Table 5-4. Required Volume of Waste and Investment for Individual SLF

Individual SLF	Required Wastes (in tons/day)	Required Investment (Maximum)
Surallah (as host)	4.15	PhP 7,500,000
Lake Sebu	5.18	PhP 12,000,000
Sto. Nino	1.74	PhP 7,500,000
T'boli	3.24	PhP 7,500,000
Norala	1.89	PhP 7,500,000
Banga	7.30	PhP12,000,000
TOTAL	23.50	PhP54,000,000

Source: Balucanag, Elbe M. Presentation document on “Solid Waste Management Program: The South Cotabato Experience” (n.d.)

Note: This excludes manpower, equipments, and operational costs

Table 5-5. Residual Waste Capacity and Required Investment for the Cluster SLF

Cluster SLF	Residual Wastes Capacity (in tons/day)	Required Investment (Maximum)
Surallah Cluster	30	PhP15,000,000

Source: Balucanag, Elbe M. Presentation document on “Solid Waste Management Program: The South Cotabato Experience” (n.d.)

Note: This excludes manpower, equipments, and operational costs

Albuquerque Cluster SLF, Bohol Province

The Albuquerque Cluster SLF is another example of inter-LGU cooperation in the province of Bohol. The Cluster SLF is a 6.9-ha facility located about 12 kilometers from the capital city of Tagbilaran. It has become operational since 2017, about 15 years after the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) and the local government unit of Albuquerque signed a Memorandum of Agreement in 2011. The TIEZA (presently the Philippine Tourism Authority or PTA) provided the P300-million funds for the construction and development of the facility (Obedencio, 2017). Based on the MOA, the Albur as the host shall ensure the establishment and operation of the SLF in accordance to the law, allow continuous access of garbage vehicles of cluster LGUs and its private entities, and continuously comply with the regulatory maintenance requirements. The Cluster LGUs on the other hand, shall provide their own transport equipment, MRF and transfer station; comply with disposal schedule and procedures established by the Board; and pay tipping fee to Albur LGU thru automatic allocations (Albuquerque SLF Feasibility Study and Detailed Engineering Design, 2012).

Privately managed SLFs being utilized by the LGUs

As shown in Table 5-3 and based on key informant interviews, the common type of partnership on solid waste management in the Philippines is the privately managed or operated SLFs which are being utilized by a group of LGUs. Examples of this kind of cooperation are the Navotas SLF at the National Capital Region and the Rodriguez Rizal SLF from the Rizal Province which receive waste from the LGUs in Metro Manila; the Pilotage SLF in San Pedro, Laguna

which receive waste from the LGUs in Laguna province like the San Pedro, Sta. Rosa, Los Banos and Carmona; among others.

The 40-hectare Navotas SLF is the first engineered SLF in Metro Manila privately managed by the Phil Ecology Systems Corporation. It accommodates 1,500 tons per day of municipal solid wastes from various cities in the National Capital Region and uses the landing craft transport (LCT) barges to transport waste from the transfer station to the SLF (Phil Ecology, 2019). The Rodriguez Rizal SLF is privately operated and owned by the International Solid Waste Integrated Management Specialist Inc. (ISWIMS). The Pilotage SLF is a 12-hectare facility operated by the Pilotage Trading and Construction (PTAC) located in San Pedro, Laguna.

4. Challenges to Inter-Municipal Cooperation on SWM

Based on the Surallah Cluster SLF's experience, one of the challenges in constructing a cluster SLF is finding the host LGU because of the possible negative impacts to the surrounding communities. Thus, information and education awareness plays a very important role to assure the possible host LGU of the mitigating measures to avoid negative impacts from SLF and to inform the community of the significance of this kind of activity. Another concern is the huge financial requirement for construction. Thus, the Provincial Office of South Cotabato provided an initial financial support and the LGU officials of the host LGU also contributed for the construction of the Surallah Cluster SLF. This shows the need for strong political will in initiating this kind of collaboration.

On November 23, 2018, the Seminar on “Inter-Municipal Cooperation on Waste Management in Japan and Other Asian Countries” was held at the University of the Philippines Los Banos (UPLB), Laguna, Philippines. It was co-organized by the Institute for Governance and Rural Development – College of Public Affairs and Development (IGRD-CPAf)- UPLB, the Institute of Developing Economies – Japan External Trade Organization (IDE-JETRO), and the Economic Research Institute for ASEAN and East Asia (ERIA). About 70 participants attended the event composed of Mayors and other officials from different LGUs in the CALABARZON (Cavite, Laguna, Batangas, Rizal, Quezon), representatives from the academe, private and business sectors, non-government organizations (NGOs), and resource persons from the Japanese research institution and universities. During the seminar, some of the challenges cited by the participants to the inter-municipal cooperation on solid waste management were the following:

- The political will of the local leaders to enter in this kind of cooperation;
- The sustainability of cooperation due to the limited terms of the elected officials or the change of leadership;
- The lack or limited support from the national government in terms of technical and financial aspects; and
- The weak implementation of the cost-sharing mechanism to help the LGUs with the cost requirement especially for the low-income class municipalities.

5. Opportunities and Recommendations

In terms of opportunities, the legal bases for inter-municipal cooperation are present in the Philippines. Also, the responsibility of solid waste management is already devolved to LGUs but most of them have no environmentally sound facilities. Although, there are private

companies who offer their technologies to the LGUs (i.e. Waste-to-energy), however, the cost requirement is too high if it will be shouldered by the single LGU alone. Hence, the provision of the technical and financial support and incentives from the national government to promote this kind of cooperation needs to be strengthened. Professor Toshiaki Sasao, one of the resource persons during the seminar, also cited that the central (national) government should take the opportunity to provide incentives to host LGUs to help turn the NIMBY mindset into PIMBY or “please-in-my-backyard”. It was also mentioned during the seminar that there are several private institutions reach out to various LGUs in the Philippines. However, there is a need for the LGUs to cooperate to increase volume of waste which will then encourage investment from private institutions. Lastly, the practice of transparent and participatory decision-making to build trust and better relationship among members is highly recommended to ensure a more effective and sustainable cooperation.

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