REVISITING ECOLOGICAL
SOLID WASTE
MANAGEMENT
ACT OF 2000
The Stratbase ADR Institute for Strategic and International Studies (ADRi) is an independent strategic research organization with the principal goal of addressing the issues affecting the Philippines and East Asia through:

1. Effecting national, regional, and international policy change or support
2. Fostering strategic ideas based on cooperation and innovative thinking
3. Providing a regional venue for collaboration and cooperation in dealing with critical issues in East Asia; and
4. Actively participating in regional debates and global conversations

With its international focus, ADRi believes that Philippine regional security and development can be achieved through the cooperation of the public and private sectors.

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As SRI sought solutions, East Asia’s affairs frequently inserted themselves into the equation. There was and is a clear relation between domestic and regional affairs; movement in one reverberates in the other.
REVISITING ECOLOGICAL SOLID WASTE MANAGEMENT ACT OF 2000

WRITTEN BY MARLON DE LUNA ERA, PH.D

stratbase + ADRI PUBLICATIONS
Manila, Philippines
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Introduction
Household wastes contribute significantly to the overall waste generation; therefore, it is vital to influence the attitude and behavior of people in the household to improve their waste management practices.

Levels of Solid Waste Management Governance
Solid waste management laws and policies at the local level provide significant inputs on how to govern solid waste management in the country.

Solid Waste Management Policies and Framework
There should also be concrete initiatives in the form of programs, projects and activities that government (both national and local), private business sector, NGOs and civil society organizations can implement and sustain.

Challenges in Implementing Solid Waste Management Programs and Projects
While many foreign governments, companies and consultants visit the Philippines and offer different possible solutions in the form of “hard” technology, concerned agencies and LGUs should decide which technology would be the best option.

Social and Gender Dimension of SWM
Women and men in the Philippines have varied responsibilities and perceptions on solid waste management. It is important to consider both perceptions in solid waste management planning and resource allocation.

Revisiting R.A. 9003 (Ecological Solid Waste Management)
Republic Act No. 9003 mandates the LGUs for major responsibilities particularly on law enforcement, as it encourages the participation of the private companies, non-governmental organizations, and civil society organizations.
Initiatives that can Contribute in Improving Waste Management in the Philippines
The private sector plays a significant role in environmental governance through its Public-Private Partnerships (PPPs) and Social-Private Partnerships (SPPs) models. Alternatively, the Industry-Academe Partnership model aims to implement a school-based ecological solid waste management

Shift from State to Non-State Actors in Solid Waste Management
In cases when the State cannot fulfill its commitment to a healthy and clean environment, other stakeholders come into the picture including Non-State Actors (NSA)

References

Acknowledgments

About the Author
ABSTRACT

With the 20th year of implementation of Republic Act No. 9003, the Ecological Solid Waste Management Act, this special study focuses on the present implementation of solid waste management in the Philippines.

Rapid urbanization and economic development contribute to waste generation. There is a strong recognition that continued increase in waste generation causes serious concerns which many countries including the Philippines find difficult to address. The World Bank estimates that the daily waste generation of people in the Asia–Pacific region will be more than double, from 1 million tonnes in 2012 to around 2.5 million tonnes, by 2025.

After 19 years of implementing the national law on solid waste management, there is still a long way to go to comply with what the law requires. Specifically, there are only 8,843 barangays or 21% with a Material Recovery Facilities. Also, there are 946 open and controlled dumps, and only 68 of these are being rehabilitated for closure.

There is a very low compliance in LGUs to establish sanitary landfills due to the high cost required and the lack of suitable land to put up.

Many LGUs specially in the provinces find it difficult to close dumpsites due to limited financial and technical assistance to implement the law.

The paper provides insights as to the level of solid waste management governance. It aims to provide the big and complete picture on how to improve the present implementation. The paper also presents a social and gender perspective of solid waste management which should be considered both by the national and the local governments in their pursuit of ecological solid waste management for the next 20 years.
The rapid urbanization cum economic development taking place in the Philippines resulted in increased waste generation. By 2025, it is expected that solid wastes generated in the cities and municipalities in the Philippines will increase up to 165% (or about 77,776 tons). Household wastes contribute significantly to the overall waste generation: about 57% of the solid waste from the residential areas; 27% from commercial establishments, 12% from institutional sources and only 4% from industrial or manufacturing sector (Senate Economic Planning Office (SEPO) Report, 2017). This would mean that households are the biggest polluters of the environment in terms of solid waste generation.

Based on a waste analysis and characterization study, more than 50% of the municipal solid wastes generated is organic which can be converted into quality compost for agriculture, gardening or landscaping purposes. In a large scale, organic wastes could be made into biogas for local electricity production. The remaining inorganic wastes constitute more
than 25% such as glass, plastic and metal could be materials for recycling (JICA, 1997).

Many Local Government Units (LGUs) aim to construct Sanitary Landfills (SLFs) either individually or by cluster. This is challenged by the cost of the facility and the availability of suitable sites. Hence, LGUs that operate and maintain SLFs would always look for ways to prolong their life by minimizing wastes being disposed into the facility.

As of June 2016, the National Solid Waste Management Commission reported that there were 117 operational SLFs in the Philippines. This includes clustering as an option. Clustering is basically setting-up of a common solid waste disposal for small LGUs. A good example would be the SLF at Barangay Clongulo, Surallah, South Cotabato, which was made possible through the technical assistance from the Department of Environment and Natural Resources (DENR) and financial support from the United States USAID in 2011. The said SLF is serving clusters of municipalities namely Surallah, Norala, T’boli, Banga, Sto. Nino and Lake Sebu. This kind of inter-municipalities clustering was regarded as successful by the DENR.

The main constraints, however, include identification of a suitable host LGU and social acceptability of the project to the community. It is therefore vital to influence the attitude and behavior of people in the household to improve their waste management practices. With the appropriate paradigm shift, it is estimated that about 90% of total municipal solid waste could be recovered, which will minimize need for sanitary landfill as final waste destination.
Levels of Solid Waste Management Governance

Figure 1 presents the level of solid waste management governance in the Philippines. The real actions such as waste segregation, reduction at source, recycling and collection are taking place at the local level (province, city/municipality and barangay). On the other hand, research on Solid Waste Management (SWM), funding, incentive system and eco-labeling are done at the sub-national and national levels. The Provincial level of governance has minimal participation as it becomes involved when two or more municipalities/cities are present, such as the case in operating a cluster sanitary landfill. As seen in the same figure, the fact remains that the national and sub-national levels of governance are responsible for policy formulation, program development and provision of technical assistance while at the local government level (province-municipality/city-barangay), the actual implementation of the various components of solid waste management takes place. Hence, the environmental governance of solid waste management in this study is focused at the local level particularly at the municipal/city and barangay contexts.

The different programs, projects and activities as well as decision-making on solid waste management are products of the interplay of various institutions at different levels of authority and in different sectors of society (Magallona and Maglayang 2001). Solid Waste Management laws and policies provide significant inputs on how to govern solid waste management in the country.
**Figure 1. Dimensions of Solid Waste Management Governance in the Philippines**

### LEVELS OF ENVIRONMENTAL GOVERNANCE

<table>
<thead>
<tr>
<th>Global</th>
<th>Post 2015 Global Framework</th>
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<tr>
<td></td>
<td>Sustainable Development Goals</td>
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<td></td>
<td>NIP-POPS Stockholm Convention</td>
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<td>National</td>
<td>Ecological Solid Waste Management Act of 2000</td>
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<td>National SWM Fund</td>
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<td>Eco-Labelling</td>
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<td>Buy-Back Mechanism</td>
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<td>Reduce, Reuse and Recycle (3Rs)</td>
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<td>Sub-National</td>
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<td>Local</td>
<td>Cluster Municipalities/Cities</td>
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<td></td>
<td>Operation of Sanitary Landfill</td>
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<tr>
<td>• Province</td>
<td>Collection and Transfer (non-recyclables and special wastes)</td>
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<tr>
<td></td>
<td>Operations of Sanitary Landfill</td>
</tr>
<tr>
<td>• Municipal or City</td>
<td>Waste Analysis and Characterization Study (WACS)</td>
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<td></td>
<td>Education and Public Information</td>
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<tr>
<td>• Barangay</td>
<td>Waste reduction at Source</td>
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<td></td>
<td>Composting, Ecological Garden</td>
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<tr>
<td></td>
<td>Collection and Transfer (biodegradable, compostable and reusable)</td>
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<tr>
<td></td>
<td>Material Recovery Facility (MRF)</td>
</tr>
</tbody>
</table>

**NGAs, LGUs (State)**

**NGOs, Schools, Churches, Private Sectors, etc. (Non-State)**

*Source: Adapted from Magallona and Malayang 2001*
Solid Waste Management Policies and Framework

Using the Philippine National Solid Waste Management framework, interventions to improve solid waste management could be in the form of avoidance, reduction, reuse, recycle and recovery. Avoidance may be implemented through non-utilization of single-use plastic with an available option to “bring your own bag”. In terms of reduction, waste generation may be curbed through conscious purchasing behavior on the part of buyers.

Maximizing the value of materials contributes greatly to the solid waste management practice of reusing. Reusing jars and containers is a common practice among Filipino households specially the low-income group. In school and office, using both sides of paper would be a concrete example of reuse. For instance, when my students submit reflection papers printed in used paper, they are given extra points for practice of reuse. This incentive is being announced only at the end of the term.

Effective and efficient solid waste management would require change in the behavior and mindset of people. In addition, there should be concrete initiatives in the form of programs, projects and activities that government (both national and local), private business sector, NGOs and civil society organizations can implement and sustain.

The least preferred options are treatment and disposal considering that the safest disposal method would be through
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Figure 2. Overall Policy of R.A. 9003 Based on Wasted Management Hierarchy

PARTNERSHIP ENTERPRISES AS DICTATED BY POLICY, ECONOMIES OF SCALE AND IN PARTNERSHIP WITH LGUS

Sanitary Landfills. However, this is deemed to be costly and would require suitable land and social acceptability of the stakeholders. SLF is also the most preferred option as the final destination of solid wastes in the Philippines.

During a fieldwork conducted in areas of Eastern Visayas affected by Typhoon Yolanda, the most common problem expressed by the LGUs is the unavailability of suitable land which is specifically not disaster prone. This was further confirmed by the Department of Environment and Natural Resource (DENR) Region VIII Office that most of the LGUs in the Region are facing similar problems of converting the existing dumping sites into SLF or close and rehabilitate. However, in the absence of a waste disposal facility, there is a delay in the compliance by the LGUs. During the fieldwork in 2015, no specific and concrete case has been filed against a Local Chief Executive whose municipality failed to comply with the recommendation or order from the national government. With the lack of drastic action, like the Local Chief Executive being convicted and penalized, implementation of the solid waste management in the Philippines will remain problematic.

Relevant Laws and Policies on Solid Waste Management in the Philippines

The paper attempts to present the chronology of laws and policies that are directly and indirectly related to solid waste management. The account started only in the 1930s until the most recent times.
## Table 1. Significant Laws and Policies on Solid Waste Management in the Philippines

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SIGNIFICANT EVENTS</th>
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| 1930s to 1940s    | - Commonwealth Act No. 383 to punish dumping of waste matter into any river  
|                   | - C.A. No.141 providing for a system of disposing and conserving public lands  
|                   | - C.A. No. 137 was enacted for the conservation and development of mineral lands                                                                 |
| 1960s             | - Formation of important government entities:  
|                   |   - National Water and Air Pollution Control Commission (R.A 3931)  
|                   |   - The Reforestation Commission (R.A. 2706)  
|                   |   - Laguna Lake Development Authority (R.A.4850),1966  
| 1970s             | - Philippine Environmental Policy (P.D. 1151)  
|                   | - Philippine Environment Code, “ (P.D. 1152)  
|                   | - Creation of the National Environment Protection Council (P.D. 1121)  
|                   | - Enactment of the Code of Sanitation, the Water Code, the Fisheries Decree, the Marine Pollution Decree, and the Coral Resources Development and Conservation Decree  
|                   | - Legal regulation for the prevention, control, and abatement of air pollution from motor vehicle (P.D. 1181)  
|                   | - Granted authority to heads of barangays (villages) to enforce pollution and other environmental control laws (P.D. 1160)  
|                   | - Environmental Impact Statement System (P.D. 1586)  
|                   | - Garbage Disposal Law (P.D. 825)  
|                   | - Sanitation Code (P.D. 856)  
| 1980s             | - Reorganization of the Ministry of Natural Resources to the Department of Environment and Natural Resources (DENR) under Executive Order No.192 (1987)  
|                   | - The Philippine Clean Air Act (Republic Act 8749)  
| 2000s             | - Ecological Solid Waste Management Act of 2000 (Republic Act 9003)  
|                   | - Clean Water Act of 2004 (Republic Act 9275)  
|                   | - National Environmental Awareness and Education Act  
|                   | - Climate Change Act (Republic Act 9729)  
| 2010s             | - Republic Act 10121 Philippine Disaster Risk Reduction and Management Act  

Source: Era, M (2014) Environmental Governance on Solid Waste Management in the Philippines
Challenges in Implementing Solid Waste Management Programs and Projects

Implementation of solid waste management programs and projects is not an easy task. At the barangay level, it is implemented using Materials Recovery Facility (MRF) as a major strategy. MRF would require a Material Recovery System (MRS) to ensure successful implementation. While Republic Act No. 9003 is on its 20th year of implementation, there has been a lot of contention in setting up an MRF at the barangay level. Many barangays have yet to implement its own MRF.

For example, some barangays in the Province of Sorsogon have a vast land area but with a very small population. In this case, setting up of an MRF is futile with the minimal waste generation of the area. As such, this situation strongly justified the passing of a Provincial Ordinance that encourages clustering through an MRF.

Generally, solid waste management is confronted with various issues and challenges such as the increasing solid waste generation, i.e. the multifaceted concerns of the LGUs that spreading themselves too thin resulting in mediocre performance in solid waste management.

Another challenge in solid waste management is in the selection of the most appropriate methods or technology for waste recycling and waste recovery. In the recent past, the subject of many conferences on solid wastes is waste to energy. Many foreign governments, companies and consultants have
visited the Philippines and offered different possible solutions in the form of “hard” technology. However, decision on the best option still falls on the concerned agencies and LGUs.

Lastly, there is an issue in terms of how the community can actively engage in the implementation of solid waste management. Considering that the major source of waste generated are coming from households rather than industries, it is significant that the community should partake in implementing solutions that would help improve over-all solid waste management in the city, municipality or barangay.

Social and Gender Dimension of Solid Waste Management

Another important aspect of solid waste management is the social and gender dimension. The social dimension may refer to socio-economic conditions that raise questions such as; What are the kinds of work that the informal workers do in the dumpsites? Do they have regular income? How much is their income? Who are engaged more in the waste picking job, men, women or children?

Another factor in the social dimension is the environmental awareness of the public. In developed countries, the more affluent and highly educated individuals have a higher level of environmental awareness and good waste management practices. Is this true in developing countries like the Philippines? How are the roles and responsibilities in waste
management distributed or assigned based on gender? Who is doing what? Who is doing the dirty work?

According to the World Economic Forum - The Global Gender Gap 2018, the Philippines ranked 6th out of 149 countries. The Philippines is one of the higher-ranked Asian nations with respect to closing the gender gap. This could be attributed to several factors such as the high cases of health and survival, increase in literacy, and improvement in economic participation. Women in the Philippines are largely engaged in informal work particularly in small home businesses and other low paying jobs including waste related and recycling (GA Circular, June 2019).

Likewise, women and men in the Philippines have varied responsibilities and perceptions on solid waste management. For instance, in terms of segregation, men would consider putrescible materials (food wastes, biodegradable) as wastes while women view them as resources for composting and fertilizer. It is important therefore to consider both perceptions in SWM planning and resource allocation.

This is also true in terms of waste collection preference. Men may favor a more centralized drop off central collection system in the community or establishments while women may prefer door-to-door collection considering that they have multiple household roles and responsibilities. Therefore, to maximize the efficiency and effectiveness of waste management services, it is paramount to determine the needs, requirements and challenges faced by both men and women in the waste collection system.
It is worth mentioning that it is still common sight to see that women are the caretakers of the house which made them responsible for household waste management. This situation made these women more exposed (than men) to human excreta or other “dirtied” waste materials which put them more susceptible in contracting diseases such as hepatitis, diarrhea, and eye and skin infection. However, this is not consistent in the implementation of the South East Asia-Urban Environmental Management Application (SEA-UEMA) Project until the late 1990s in different cities in Asia including Santa Rosa City in Laguna. The study found that the male member of the family or male household helper is responsible in taking out of the garbage bins for the collection of the city garbage trucks regularly.

Solid Waste Management is not a gender-neutral subject. However, R.A. 9003 is not observed through the gender lens. This does not stipulate differences in the needs and requirements of both males and females in the generation, collection, practice of 3Rs and disposal of solid wastes at home, in school and other institutions. As a result, implementation of solid waste management at home and in the community does not mainstream gender dimension. It would be helpful if the Department of Environment and Natural Resources through the National Solid Waste Management Commission to review the law and look into the gender aspect.
Revisiting R.A. 9003  
(Ecological Solid Waste Management)

Republic Act No. 9003, also known as the Ecological Solid Waste Management Act, primarily mandates LGUs for the effective and efficient implementation of solid waste management. It also encourages the participation of private companies, non-governmental organization and civil society organization. Notably, the law stipulates that every barangay is required to establish a Material Recovery Facility (MRF). To date, only 8,843 barangays, roughly 21%, have MRFs.

Solid waste collection is managed by the municipal or city government trucks usually with daily schedule in the city centers and major streets and with at least once a week collection in the rest of the municipality. In the event that of delayed or partial collection, uncollected garbage tend to be improperly disposed such as through open littering or garbage burning.

With regards to waste disposal facility, Sanitary Landfill is the main option in the Philippines. This could be attributed to the fact that incineration and related technology is not allowed by law specifically the Clean Air Act. As of December 2018, there are 165 Sanitary landfills in the Philippines that are serving around 353 Local Government Units (NSWM Report 2008-2018).

Aside from being costly, many LGUs have a difficult time
looking for suitable land for the establishment of sanitary landfill. As mentioned earlier, many LGUs in Region VIII in the aftermath of Typhoon Yolanda failed to meet the prescribed guidelines for identifying and establishing a site for the sanitary landfill per Administrative Order No. 50-1998 of the Department of Environment and Natural Resources (DENR). The following are the criteria for site selection:

1. It should not be located in an existing or proposed residential, commercial, or urban development areas, and areas with archaeological, cultural, and historical importance;
2. It should not be located in or up gradient of shallow unconfined aquifers for drinking water supply;
3. It should not be located near airports; and
4. It should not be located in soft and settling soils.

Majority of the LGUs have yet to comply with the provisions of R.A. 9003, particularly on the establishment of local Solid Waste Management Boards, the submission or updating of the Ten Year SWM Plans, establishment of the material recovery facilities, and the closure of all open and controlled dumpsites. As of 2018, the National Solid Waste Management Commission of the DENR reported that a total of 384 open dumps still operate nationwide except in Metro Manila.

It is interesting to note that because some big cities implemented no plastic policy, it was reported that about 316 LGUs all over the country have passed ordinances banning or regulating the sale and use of plastic bags and polystyrene
foams as these wastes contribute in the clogging of waterways, cause flooding, and pollute water sources.

Aside from the abovementioned issues, apparently there are collection issues related to the fact that only 40-85% of the waste generated is collected nationwide, implying that 15-60% is improperly disposed of or littered. The maximum collection rate of 85% is recorded in Metro Manila. The uncollected garbage is, unfortunately, burned or dumped anywhere onto open areas, called open dumps, adding to the now polluted air shed and water body, and global warming in the country (SEPO Report, Nov 2017).

**Initiatives that Can Contribute in Improving Waste Management in the Philippines**

In the Philippines, the private sector also plays a significant role in environmental governance particularly on solid waste management. The private sector includes business corporations (for profit), NGOs (not for profit), academic institutions and faith-based organizations. Many of them have been building networks within the country and overseas to implement programs and projects that address local environmental issues and concerns. In most cases, these efforts complement or serve as alternative to government’s efforts (Magallona and Malayang, 1998) in environmental governance.
Cognizant of the fact that the Philippines practices environmental governance via multi-sectoral level or layering in its approach, occurring in the different levels of decision and consensus making, namely, at the local community (among individuals and groups in the neighborhood, village, municipality and province); at the subnational level (in a region); and at the national level (country as a whole); and international (with other countries).

Environmental governance in the Philippines is still problem-focused which implies that stakeholders look at environmental problems separately. This is consistent with a bureaucratic form of government that handles environmental concern “in a box.” For instance, solid waste concern is treated differently from that of water, sanitation and air pollution where in fact, these urban environmental management issues are closely related to each other and should be addressed altogether in a more comprehensive manner. However, concerned national government agencies only handle these problems that are within their prescribed mandate only.

Under the Declaration of Policies of R.A. 9003, there is a very clear stipulation on how the state recognizes the important roles of the private sector on solid waste management. There are three common models on environmental governance which could be utilized for solid waste management project, namely, Public-Social Partnerships (PSPs) or Co-Management, Public-Private Partnerships (PPPs) and Social-Private Partnerships (PPPs). Additionally, it will also discuss the emerging Industry-Academe Partnership.
Public-Private Partnerships (PPPs)

The Public-Private Partnerships or PPPs is one of the common partnerships that have been utilized in the many projects including environment-related programs like solid waste management. In the PPP, it is assumed that there is the lack of budgetary resources with enormous infrastructure needs in emerging markets. This strategy evidently remains an attractive policy option. In fact, the United Nations (2002) describes PPPs as a strategic necessity rather than a policy option representing a unique and flexible solution to implement infrastructure projects (Grimsey and Lewis, 2004: 221). Although the PPP has an interesting nature in the model of environmental governance, however, in emerging markets most of the projects funded applied mainly in the mining and oil and gas sectors. Such projects rely on large-scale foreign currency financing and are particularly suited to project finance because their output has a global market and is earned in hard currency.

Since market risk greatly affects the potential outcome of most projects, the financial aspect tends to be more applicable in industries where the revenue streams can be defined and readily secured (Grimsey and Lewis, 2004: 231). It is interesting to note that this environmental governance model focuses more on the market-based approaches that have always been seen as a potential response to the inefficiencies of state or community action, by way of putting more competitive pressures in the provision of environmental services or through the use of price signals (Armitage, 2007). It can be safely assumed that greater
societal concern for the environment plays at least some part in encouraging environment-friendly corporate strategies.

A review of related literature shows that much research on public-private partnerships alone has focused on the relatively technical details of finance and responsibilities between investors and the state. However, in cooperative environmental governance, concerns on environmental ethics embedded on local culture are to be addressed by the governing body, thus involving some form of discursive arena (Forsyth, 2000).

Some companies came up with their own SWM programs. For instance, Table 2 below presents different big companies operating in the Philippines who have their own initiatives on solid waste management as part of their regular environment related program or included in the company’s Corporate Social Responsibility (CSR) menu.

Social-Private Partnerships (SPPs)

The Social-Private Partnership (SPP) is an environmental governance model which is a partnership between market actors and the civil society (Agrawal and Lemos, 2007). The SPP model as observed, provides premium emphasis on the self-governing capacity of non-state actors like civil society organizations and the active participation of the private business sectors. This model is known to come in different shapes and forms which determined 18 case studies that demonstrate its successes in a workshop on forging effective SPPs. These cases are inclusive of
### Table 2. Private Business Sector SWM Initiatives

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<th>Company /Organization</th>
<th>SWM Initiatives and Partners</th>
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<td>Project Eliminate</td>
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<td>2. Nestle Philippines</td>
<td>Waste to Resource</td>
</tr>
<tr>
<td>3. Coca-cola Bottlers Philippines</td>
<td>Give a can, Give a hope in partnership with Tahanang Walang Hagdanan, RPET Recycling Facility</td>
</tr>
<tr>
<td>4. Philippine Business for the Environment</td>
<td>Industrial Waste Exchange Program</td>
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<td>5. Eco-Index in Region IV-A</td>
<td>Resource Recovery Event</td>
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<tr>
<td>6. Atlantic Coatings Inc.</td>
<td>SWM Program of Hugo Perez</td>
</tr>
<tr>
<td>7. Team Energy – Sual Corporation</td>
<td>SWM Programs</td>
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<td>8. Toyota Motor Phils. Corp Santa Rosa</td>
<td>Community Awareness on SWM; Vermi Composting</td>
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<td>10. United Pulp and Paper Co. Inc.</td>
<td>SWM Plan</td>
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<td>11. Toshiba Information Equipment Phils. Inc.</td>
<td>SW Minimization</td>
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<td>12. PSI Technologies Inc. Taguig</td>
<td>Waste Segregation Program</td>
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<td>13. Toyota Autoparts Santa Rosa</td>
<td>School-based SWM</td>
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<td>14. PSI Technologies Laguna Calamba</td>
<td>Waste Segregation Programs</td>
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<td>15. San Miguel Brewery Inc. Davao</td>
<td>SW Segregation</td>
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<td>17. Nestle South Distribution Center</td>
<td>SW Reduction</td>
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<tr>
<td>18. Amkor Technology Inc Binan</td>
<td>Waste Segregation; Balik Baterya Program</td>
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*Source: The Philippine Environment Partnership Program: Recognizing Industries with Superior Environmental Performance, DENR 2010; Company websites*
health, human resources development, housing for the poor, rural electrification, electoral reform and the environment. In undertaking these cases some markets engaged a limited group of partners, multinational corporations, international NGOs and partnerships at the local level with partnerships initiated either by the corporation or the NGOs and are pursued for a number of reasons (Agrawal and Lemos, 2007).

One of the significant issues in environmental governance is accountability in the traditional form of environmental governance and imbedded in the governance system. For instance, a particular government agency has its own accountability mechanism in a hierarchy and this same hierarchy is present at both national and local governments globally. However, there is a caveat in environmental governance partnerships that involve state actors, the problem of insufficient accountability which is often identified as a lack of political will. In response, Stratos (2002) pointed out that if vision and strategy for governance have been developed, implementation should not depend on political will, but on established goals supported by clear lines of accountability for achieving them (cited by Furlong et al. 2008).

The SPPs is a newer type of partnership compared with the PPP and Co-management (PSPs). SPPs have introduced new forms of regulations in the industry via a more acceptable middle ground between the command and control approach and the voluntary self-regulation (John, 1994; Weber 1998 as cited by Forsyth 2000). The SPPs have provided a more inclusive form of policy debate which is something new (Irwin, 1995 as
cited by Forsyth, 2000). The unique feature of SPPs would be its focus on non-state actors (both the for profit and not-for-profit organizations), their roles and functions in partnership building with the community.

The partnerships between non-profits and the private sector introduce innovative tools and mechanisms shaping power relations within the policy arena positively. The SPPs as a promising strategy requires further study as there are limited studies on SPPs. In addition, many of the existing partnerships under SPPs lack documentation particularly of those considered best practices or successful cases from which lessons could be drawn. In other words, much of the knowledge regarding SPPs stem from conventional wisdom. Thereby, SPPs are faced with the challenge of being able to identify and document good cases and examples for future reference and to which the study hopes to contribute much.

SPPs can create competitive advantage, by strengthening corporate social responsibility and enhance management performance as well as generating a bigger social dividend by responding to the public desire to see profits being reinvested in communities. In simple terms, SPPs may enable a social enterprise to increase its market share, by maximizing these surpluses enabling it to reinvest for greater social benefit.

As a new form of environmental governance, some examples of SPPs are considered successful, such as, the REEA Foundation (previously REEA Epileptic Care Centre and originally the “Rand Epileptic Employment Agency”) established in South Africa in 1935. It is a non-profit organization caring for adults
living with epilepsy and mild mental disorders who cannot be accommodated in a normal family environment.

At present, as this model is followed by most companies, they view themselves into making provision for social investment in their annual budget. Corporate Social Investment therefore becomes top priority in order for companies to fulfill their obligations in Black Economic Empowerment (BEE). This is a strategy in the U.S that requires an economy to meet the needs of all economic citizens in a sustainable manner. This model sidesteps historical problems, such as the fact that social entities often fail when they attempt to become commercially driven; here, commercial aspects remain in the private realm, which is better equipped to meet commercial imperatives (Forsyth, 2000).

Industry-Academe Partnership

One of the major provisions of Republic Act 9003 is the mandating of concerned agencies to incorporate ecological solid waste management in the school system at all levels. This basically aims to increase the participation of the academe by enhancing the capacity of students, teachers and the school administrators to undertake school-based SWM program.

Aside from partnership with academic institutions, private business and corporations play important role in the overall solid waste management. In response to local ordinances
banning single used plastics, the plastics industry introduced the use of oxo-biodegradable plastic bags which are now being used in selected big chain of supermarkets specially in Metro Manila. Many establishments continue to observe the 3Rs and promote eco-shopping bags for a fee. While bringing one’s own shopping bag is encouraged, there is no concrete incentives for those who practiced it.

It is common knowledge that the private business sector is basically motivated by a return of its investment and profit oriented to constantly garner public interest for their company or service. The Industry-Academe partnership is an emerging partnership model in more recent times. While most of the programs with this type of partnership would involve provision of scholarship funds, on the job trainings and similar endeavors, another venue of partnership between the industry and the schools is in the context of implementing a school-based ecological solid waste management.

In the City of Santa Rosa, the Toyota Auto Parts (TAP) is among those industries actively performing its CSR. The TAP is the global production and supply base for manual transmissions of Toyota for its Innovative International Multi-Purpose Vehicle (IMV) project which was initiated to create an optimized global manufacturing and supply system for pickup trucks and multipurpose vehicles to satisfy market demand in more than 140 countries worldwide. TAP has a total of 1,063 team members with main customers from other Toyota affiliates located in other Asian countries, Argentina, and South Africa.
One of the projects initiated by the Toyota Auto Parts in the City of Santa Rosa is the implementation of the School-based Ecological Solid Waste Management (SBSWM) Project. The project is another type of social-private partnership that involves an industry and all the schools in the city and is a four-year project (2007-2011) focusing on the implementation of an on-campus solid waste management. The project, aimed at introducing a sustainable Ecological Solid Waste Management in the 109 public and private schools enabled all the schools in the city with the opportunity to comply with the provisions of the R.A. 9003.

Implementation of the SBSWM in most of the schools revolve around student organizations made possible through the partnership between the TAP and schools in the city. It was aimed at implementing a comprehensive ecological solid waste management that would include formation of student environmental organization on campus. Each school has formed the Young Environment Society Organization (YES-O) or the Environmental Science Club. The project was successful as this involved all schools in the City of Santa Rosa and was recognized by the DENR after its project completion.

Shift from State to Non-State Actors in Solid Waste Management

The state has the mandate to implement programs, projects and activities that aim to improve the quality of life of people. Hence,
Plastic bottles are not trash.
it is mandatory for the state to maintain a safe, healthy and clean environment for all. In cases when the state cannot fulfill its commitment to a healthy and clean environment, other stakeholders come into the picture including Non-State actors (NSAs). The European Union (2009) has defined NSAs as those referring to non-governmental organizations representing indigenous peoples, national and/or ethnic minorities, local traders’ associations and citizens’ groups, cooperatives, trade unions, organizations representing economic and social interests, organizations fighting corruption and fraud and promoting good governance, civil rights organizations and organizations combating discrimination, local organizations (including networks) involved in decentralized regional cooperation and integration, consumer organizations, women’s and youth organizations, teaching, cultural, research and scientific organizations, universities, churches and religious associations and communities, the media and any non-governmental associations and independent foundations, including independent political foundations.

It was in the 1970s when the state began to reduce its role as the prime agent of environmental governance. This situation resulted in an increase in participation of market and voluntary incentive-based mechanisms that instead of relying on hierarchically organized, regulatory control, or even purely participatory structures, market and agent focused instruments; it aimed to mobilize individual incentives in favor of environmentally positive outcomes through a
careful calculation and modulation of costs and benefits with particular environmental strategies.

They differ from more conventional regulatory mechanisms along a number of dimensions, including the source of their legitimacy and authority (Lemos and Agrawal, 2007). One of the arguments presented for the inclusion of agents and the market is the strength of these instruments lies in their utilization of market exchanges and incentives to encourage environmental compliance (Cashore, 2002 as cited by Lemos and Agrawal, 2007). This brought about the phenomena of increasing cases of governments in different parts of the globe utilizing the services of the NSAs (like the nonprofit organizations) for the delivery of basic social services (Laratta, 2009).

Part of the explanation for such acts by NSAs is the characteristic of non-state actors that could be widely described as any organization or group that is not set-up directly by the state. The NSAs are composed of the civil society (not for profit) and private sector (for profit) and encompasses many sorts of actors such as academic institutions, business forums, clan and kinship circles, consumer advocates, development cooperation initiatives, environmental movements, ethnic lobbies, foundations, human rights promoters, labour unions, local community groups, relief organizations, peace movements, professional bodies, religious institutions, think tanks, women’s networks, youth associations, and more that may directly or indirectly influence the propensity in carrying
out the SPPs. Civil society exists whenever and wherever voluntary associations of whatever kind try to deliberately mould the governing rules of society. This is because civil society stretches much wider than a formally organized, officially registered and professionally administered “NGOs.”

Recently, there are significant improvements observed in such partnerships between private corporations and civil society organizations (Armitage, 2007), i.e. a minimization of the state role in direct service provision and a shift of significant responsibilities to the private sector and welfare NGOs (Quiggin, 2005). This has been observed among the Chinese in environmental governance, citing as an example, Chinese policymakers increasingly rely on scientific analyses provided by the knowledge community (or non-state actors) to implement a scientific approach to development; effectively virtually empowering the scientific community to participate in environmental governance.

Likewise, as the new civil society actors increasingly participate in China’s environmental governance, there is a need to appraise their roles in China’s environmental governance. This transition has been described as the Third Way or Third Sector where goals for incorporating the market and community into the governance processes feature ‘inclusion’ (Gray, 2000, Goodin, 2003).

In this process, welfare NGOs were described as ‘enabling’ agents for citizens to gain access to support where local communities and they were drawn into partnership with each
other and with governments (Bovaird, 2005). Both the private corporations and the welfare NGOs enjoy the benefits more than the promotion of environmental objectives. Corporate partners can benefit as their actions receive greater societal legitimacy, whereas NGO can benefit through new sources of finance to support their conservation efforts (Armitage, 2007). The private sector partners with non-state actors as part of its company’s CSR strategy.

The World Business Council for Sustainable Development defines CSR as “the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large.” Thus, CSR took on several forms subject to popular interpretations in the market. Some forms of CSR put emphasis first and foremost on making a profit, followed by meeting societal expectations and ethical principles, i.e. legal standards and charities (Carroll, 1979).

Some markets meanwhile, find that the CSR strategy could be a response to a recognized social issue for a more strategic intervention to improve the image of the company and its competitive position (Strategy and Society; HBR Review, M.E. Porter & M.R. Kramer, 2006). Simultaneously, the market has to find a level of compromise towards achieving both a balance in its business and social commitments. However, private sector corporations are increasingly under pressure to take a more active role in society by helping alleviate social
problems and meet social needs. After all, it exists because of the market it created which certainly, not everyone agrees with this sentiment. Many would avow that solving social problems is the role of government, not the private sector, and that the responsibility of corporations is bounded by the business mission (Division of Business, University of South Australia) and should observe doing so as believed by most of those in the market. Still, over the years, CSR has become an integral component of a corporation’s operations and has provided financial assistance to charitable activities.

However, CSR has evolved from dole-out to joint developmental undertakings toward the corporation’s primary goal of earning a profit or as a form of corporate social investment. In most cases, the private companies help their communities by setting aside money, time or expertise for local nonprofit organizations to use and provide solutions for significant social problems. Usually corporations match their social investment with their mission so that the benefits that their contributions generate reflect back to help their reputation and their brand. The adaptation of SPPs as a strategic model for environmental governance is a better policy option for social and environment related programs as part of CSR. There are companies and organizations that have implemented good practices which other organizations may gain lessons and insights.

The partnerships to resolve commonly held concerns is not a new concept. However, there is a need to look into how this
type of partnerships can be implemented in more effective and mutually beneficial ways considering that each partner has its own organizational cultures and structures which limit communication that eventually may lead to misunderstanding and lack of trust (Pell, n.d.).

In the Philippines, one of the most known NGOs is the Philippine Business for Social Progress (PBSP). The PBSP has been implementing an SPP which they called Corporate-Community Partnerships wherein companies and industries initiate comprehensive programs to benefit communities where they operate. The said partnerships made PBSP company members realize that harmonious relations with their neighbors make good business sense. In addition, the PBSP also implements an Environmental Stewardship program wherein companies take responsibility for any adverse impact their operations may have on the environment. These efforts are driven by the demand of the communities for a better living environment, but equally, by the awareness that a sustainable environment allows more cost-efficient business operations (PBSP, 2002).

Another case in point on the increasing appreciation of the SPPs between social enterprise and private sector providers in the areas of social housing, health, and social care. A YouGov poll, for example, showed that people want more social enterprises to play a much bigger role in society. When asked what we need more to ensure a sustainable economy for the future, 42% of the respondents chose social enterprises,
ahead of government institutions, charities funded by donations, and traditional business to assume certain roles in governance.

This was followed by a similar poll of public service users in November 2007 which showed that 64% said they would choose a “business that reinvents its profits for the benefits of the community” to run their local healthcare, rubbish transport services as efficiently as possible, assuming the cost would remain unchanged; validating the belief in the ability of private enterprise to take lead in governance. The points being, that this type of working partnership may be viewed in several aspects, can create competitive advantage, strengthen corporate social responsibility and enhance management performance as well as generating a bigger social dividend for the populace by responding to the public desire highlighted above to see profits being reinvested in communities.

There is a growing demand from the private sector to engage with, procure from or provide services from social enterprise, along with a desire among social enterprise leaders to work more closely with business. It is hoped that by filling that ‘knowledge and partnership gap’ will bring more significance as commissioning evolves and private firms look to diversify into new joint ventures and consortia.

Improving business support for individual social enterprises is important, but there is also a need to provide advice and perhaps, incentives to drive the creation of SPPs. Using profit to deliver social benefits is a concept that the
REVISITING ECOLOGICAL SOLID WASTE MANAGEMENT ACT OF 2000
private sector has already embraced through its considerable investment in the CSR program. Maximizing profit should enable social enterprise to deliver a higher level of ‘mission benefits’ likewise, a heightening of focus incentives by social enterprise leaders would redound towards creating more SPPs.

Surely, therefore, the time is ripe to recognize the coming together of the two related sectors to adopt a more assertive approach to partnerships between social enterprises and private firms in the provision of public services. This can be developed strongly in the context of solid waste management implemented under a partnership between non-state actors. This is not discounting the capability of the state but expanding the horizon for the non-state actors. In this way, the government can put its acts together in ensuring a more sustainable ecological solid waste management both at the policy and at the implementation level.

In communities where solid waste management programs and projects initiated by non-state actors are proven effective and efficient, the state can step back a bit to oversee the bigger picture and allow the non-state actors to exercise creativity and innovation. Likewise, in areas where implementation of solid waste management is challenging, this is where the government both the (national and local) can focus its efforts and resources in implementing solid waste management.
Pro-Poor And Sustainable Solid Waste Management In Secondary Cities And Small Towns In Asia-Pacific (Decentralized And Integrated Resource Recovery Centers), Refer to http://waste2resource.org/

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Dr. Era has been engaged in solid waste management programs, projects and activities since 1994. His Master’s thesis is about how the level of environmental awareness influenced the waste management practices of people in the household and community. In 2014, his Ph.D. dissertation is about Environmental Governance focus on solid waste management looking into partnerships and accountability.

Aside from academic qualifications, Dr. Era is very much immersed with solid waste management implementation both at the operational and policy level. Dr. Era implemented a demonstration project on solid waste funded by the Canadian International Development Agency (CIDA) in partnership with the Asian Institute of Technology. The project involved NGOs, private companies and other Civil Society Organizations in the city of Santa Rosa.

In the year 2015, he worked with Regional Resource Centre for Asia and the Pacific (RCCAP) at the Asian Institute of Technology and the UNEP (now UN Environment) on Global Solid Waste Management Initiatives of the government and private sector. He
was also a consultant of the De La Salle University- Sustainability Office on its Campus SWM Program, Pasig River Rehabilitation Program of its Estero Rehabilitation Program as well as of Toyota Auto Parts on its School-Based Solid Waste Management Program.

He has been the Executive Vice President of the Solid Waste Management Association of the Philippines (SWAPP) since 2016, President of the Local Governance Training Research Institutions-Philippine Network (LoGOTRI-PhilNet) (2019-2022) and Board Member of the Philippine Sociological Society.

Dr. Era has also written extensively on the topic of ecological waste management and the millennium development goal of moving towards developing cities in the Philippines. His recent work publication is entitled “From Response to Responsibility: An Academe-Industry Partnership on solid waste management in the Philippines” which aims to advocate for effective environmental management to communities and local institutions as important actors to involve in the process of environmental governance.

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The author is solely responsible for its content.