

PICKING UP THE BATON

Political Will Key to Zero Waste

ne of the biggest challenges of waste management programs in Philippine cities and municipalities is sustainability. Often, a change in leadership comes with a change in priorities, especially if incoming leaders hold political differences from the former leader.

Thus, programs put in place by previous administrations are almost always in danger of being discontinued by current leadership, even if those said programs have been successful. 1 Waste management programs are especially at risk because they are one of the most high-profile and difficult services that a city provides.

Despite this, the City of San Fernando proves that with strong leadership and political will, a change in authority does not mark the end of a program, but rather an opportunity to improve it.

THE CITY OF SAN FERNANDO, **PAMPANGA**

The City of San Fernando is the capital and one of the busiest cities in Pampanga, a province in Central Luzon, Philippines. It measures 6,774² hectares (67 km²) and is divided into 35 villages or barangays.3 It is home to more than 306,659 people⁴, which easily quadruples during daytime.

San Fernando is also the regional administrative capital of Central Luzon, hosting national government agency





Province of Pampanga Population: 306,659 (2015 census) Area: 67 km2 Population density: 4500/km2 Altitude: 5-70 meters above sea level Average temperature range: 22-32°C Waste generation: .6kg/capita/day Waste to landfill reduction rate since beginning of the program: 12% Waste diversion rate as of 2018: 80.69% Public spending per capita in SWM: PHP 111.00/year

City of San Fernando, Pampanga Mayor Edwin Santos under whose leadership, program implementation of Zero Waste was scaled up.

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offices operating in the region. One of San Fernando's greatest assets is its geographic location, as all major highways leading to and from all provinces in the north pass through it. Because of its strategic location, it has become the hub of commerce, trade, transportation, and agriculture in Central Luzon. There are over 8,000 business establishments in the city and more than 120 academic institutions, as well as at least 70 health care facilities. The growing number of business establishments has created abundant employment opportunities in San Fernando, thus attracting thousands of migrants from neighboring towns and provinces.

THE FIRST FEW YEARS **OF REPUBLIC ACT 9003**

Waste management in the Philippines is governed by a national law called the Ecological Solid Waste Management Act of 2000 or Republic Act 9003 (RA 9003). This law puts the prime responsibility of waste management on the barangay. It requires the barangay to implement waste segregation at source; collect and manage all biodegradable, reusable, and recyclable wastes; build necessary facilities and acquire the appropriate land and vehicles to manage wastes; and employ personnel to deliver waste services.

San Fernando initially struggled with the implementation of RA 9003. Nevertheless, they persevered by taking steps forward which included instructing employees in charge of solid waste management (SWM) to hold one-on-one seminars and trainings with barangay officials to orient them on RA 9003 and their roles and responsibilities under the law. The city also required business establishments to secure a SWM inspection clearance in order to get a business permit⁵, and passed a city-wide ordinance requiring waste segregation at source and the construction of materials recovery facilities (MRFs) in all barangays within the city.

Despite these efforts, compliance among barangays and constituents was still low. Waste generation, particularly

of residual waste, was on the rise, and open dumping and burning of waste remained prevalent.

But San Fernando was determined to meet its waste management program targets. In 2007, San Fernando created the City Environment and Natural Resources Office (CENRO), a separate office whose primary responsibility is to implement the SWM program. The city government also distributed pushcarts and tri-bikes⁶ to barangays for waste collection along with cash incentives worth PHP 150,000 (USD 2,940.45⁷) to barangays to speed up the construction of MRFs, and PHP 50,000.00 (USD 980.15) worth of construction materials to subdivisions to build their own MRFs.

In 2008, while still struggling to find a solution to the increasing volume of waste, the city signed a contract with a local company, Spectrum Blue Steel, to build a gasification facility. The company promised San Fernando a share in tipping fees from waste that will be treated in its facility, as well as income from the energy that will be generated. The company claimed that the city only had to provide land and give full control of the management of waste to Spectrum Blue Steel. However, several years after the contract signing, the company only managed to establish the frame of the building and boundary of the facility, but never delivered on the rest of its promises. Thus, in 2013, San Fernando rescinded the contract and the project was cancelled permanently.

WHEN THERE'S **POLITICAL WILL,** THERE'S A WAY

Despite the numerous setbacks to the city's solid waste management goals, former city Mayor Oscar Samson Rodriguez (2004-2013) remained adamant on finding a sustainable and ecological solution for the city's garbage woes.

In 2011, San Fernando formed a partnership with Mother Earth Foundation (MEF), a GAIA member in the Philippines that actively promotes Zero Waste. The partnership paved the way for a more effective approach to achieving San Fernando's waste management goals. MEF provided technical assistance to local leaders about RA 9003, including a more comprehensive way of addressing household segregation.

When the new administration led by city Mayor Edwin Santiago took over in 2013, the city's waste management program was not only sustained but also saw great improvements. While former Mayor Oscar Rodriguez focused on modelbuilding of barangays, Mayor Edwin Santiago directed his efforts towards scaling up and institutionalizing the program by expanding it to all barangays, including schools and subdivisions. It was also during Mayor Santiago's term that the Plastic Free Ordinance of 2014. authored by City Councilor Benedict Jasper Lagman, was enacted.



Waste workers in Pilar Village collect waste from the households. © VEEJAY VILLAFRANCA/GAIA



A waste worker in Barangay San Isidro further segregates recyclable paper. © VEEJAY VILLAFRANCA/GAIA

INFORMATION, **EDUCATION, AND COMMUNICATION (IEC) CAMPAIGN**

One of the first strategies that MEF assisted San Fernando in was leading an intensive public information, education, and communication (IEC) campaign for residents. On one hand, barangay officials had always found it challenging to implement RA 9003 in fear that requiring their constituents to participate in a waste program may discourage their potential voters for the following elections. However, thanks to the rigorous IEC campaign facilitated by MEF, citizens felt more empowered to take part in the city's solid waste management program, and they came to appreciate how the program would be beneficial for all, especially for the environment, when they saw how much cleaner their surroundings became.

Additionally, when the city decided to start a contest in 2012 where they looked for the best-performing barangay and people's own barangays started winning, citizens saw this as further encouragement to continue to support their barangay's SWM program. Aside from doing an IEC campaign

in barangays, schools, and business establishments, the city also introduced a novel concept to encourage at-source separation and home composting: a live TV show called "Win-win for All." The TV show, which goes live every Friday and is hosted by a local artist and a CENRO staff member, awards a small sum of money to households that separate their waste properly. Every episode, the hosts make surprise visits to unsuspecting households from the week's chosen barangay to check if they do proper waste separation. Five winners are awarded Php 2,000 (USD 39.21) each if they pass the inspection.

POLICY AND ENFORCEMENT

To further combat the increasing volume of residual waste, San Fernando passed a Plastic-Free Ordinance in 2014 (Ordinance No. 2014-008) which targets business establishments and aims to gradually phase out the use of plastic bags and styrofoam packaging for food products. The ordinance also details penalties that business establishments will face should they violate any of the provisions stated within the ordinance. The penalties start with a warning and can escalate to the cancellation of their business permit if they reach

a fourth offense. As of June 13, 2015, San Fernando has declared a total ban on plastic bags which has an 85% compliance rate today.

A policy of no-segregation, nocollection has also been strictly implemented. Household compliance is monitored by the barangays, while compliance of business establishments and other institutions are monitored by the city. Business establishments, private schools, and private health care facilities are required to contract a private hauler to collect segregated waste and bring residuals to a final disposal facility. To make sure that private contractors and businesses are separating at source, CENRO staff conduct regular spot-checks. Health care facilities are required to contract accredited infectious and hazardous waste treatment facilities to dispose their infectious waste properly.

STRENGTHENING AND **EMPOWERING MULTI-**STAKEHOLDER DECISION-**MAKING ON SWM**

RA 9003 requires all LGUs to create a city/municipality solid waste management board composed of city/ municipal and sectoral representatives. San Fernando is one of the few LGUs in the country where the city solid waste management board (CSWMB) is properly constituted and fully functional. The board meets regularly and acts promptly to create or adjust the city's overall waste program. The city awards a small honorarium for CSWMB members during meetings as an additional incentive. All relevant sectors are properly represented in the board, including waste workers and the youth.

Perhaps one of the biggest improvements in San Fernando's program is the recognition given to its waste workers. Previously, most waste workers in the city were considered itinerant as they were not recognized by the city and therefore not given a regular salary. However, through the partnership with MEF, waste workers have been formalized and fully integrated into the SWM program at the barangay and city levels since 2012. Waste workers have also organized themselves into the city-wide San Fernando Waste Workers Association, the president of which sits in the CSWMB.

According to the San Fernando CENRO, there are currently around 160 barangay-hired waste workers working as collectors, drivers, segregators,

street sweepers, and MRF managers that earn a monthly average salary of PHP 4,800 (USD 94) with a range of PHP 1,000-10,800 (USD 19.5-211)⁷ and an added average potential additional income sourced from sales of recyclables collected from households of PHP 4,700 (USD 92).8

FRUITS OF THEIR LABOR

The city has now covered all 35 barangays and has reported 93% compliance with RA 9003,9 with 85 fully functional MRFs located in barangays, private subdivisions, schools, health care facilities, public markets and business establishments. These MRFs are regularly monitored by the CENRO, which has now grown from

40 to 80 staff members. This expansion of the CENRO indicates the importance San Fernando places on their solid waste management program.

As of 2018, the city's waste diversion rate rose from 12% to 80.69%, and they plan to increase that to 91% by 2025. Now, the city only spends PHP 34.6M (USD 677,404) annually on waste hauling, compared to PHP 70M (USD 1.4M) in previous years. ¹⁰ Additionally, the savings that come from diverting waste from landfills also increased from PHP 2M (USD 39,206) to PHP 50M (USD 980,151) per year. For 2018, San Fernando has saved approximately PHP 20M (USD 391,563) all from proper solid waste management from the barangays.

Diversion Rate per Year

Year	Waste Generated (per year in kg)	Waste diverted (per year in kg)	Difference from previous year	Percentage
2012	61,571,149	7,388,538	NA	12%
2013	61,571,149	33,864,132	26,475,594	55%
2014	61,571,149	44,946,939	11,082,807	73%
2015	66.039,016	48,208,481	3,261,542	73%
2016	66.039,016	45,566,921	(-2,641,560)	69%
2017	66.039,016	50,189,652	4,622,731	76%

Source: CSFP CENRO, 2018



A waste worker in San Isidro works at the barangay materials recovery facility. @ VEEJAY VILLAFRANCA/GAIA

EMERGING ISSUES AND SOLUTIONS MOVING FORWARD

Currently, the emerging problem that San Fernando is facing has to do with what helped build their success in the first place: political will. The wavering political will of some barangay officials in the strict implementation and enforcement of RA 9003 in the barangay level is a perennial problem. In order to address this issue, the city government, through the City Environment and Natural Resources Office (CENRO), continuously monitors and provides assistance (be it financial assistance in the establishment or renovation of MRFs, distribution of tri-bikes and pushcarts as collection equipment, or the conduct of quarterly household/barangay evaluation) to the 35 barangays to ensure that the city's solid waste management program is maintained.

To ensure the sustainability of San Fernando's solid waste management program, the CENRO continuously monitors the compliance of the barangays and business establishments to RA 9003 and other local

protection. "The decentralization of waste management will be in vain if the barangays are not taught the basics [of waste management] and given the necessary assistance to manage their solid waste," she said.

She added that it is also important to know what kind of waste the households within the city produces, and how much of it is single-use plastics. "Waste Analysis and Characterization Study (WACS) should be conducted on a regular basis. Knowing the type and volume of waste produced allows us to manage our wastes properly, and to make policies that address the problematic waste streams. Waste reduction and elimination of single-use plastics is important as single-use plastics are the main source of water and marine pollution," she said.

The strides made in the city-wide Zero Waste implementation of San Fernando illustrates that the success of their solid waste management program was a product of the efforts of the whole community. From former Mayor Oscar Rodriguez to current Mayor Edwin Santiago, political will paved the way for a solid foundation for

to take place in San Fernando, but the participation of the community is what pushed the program to greater heights.

The community's headstrong desire to flourish coupled with the involvement and compliance of individuals within the city enabled San Fernando's SWM program to take root, thrive and propel the city to become the model Zero Waste City that it is today—a pioneer in Zero Waste and considered as the first LGU that strictly complies with the Ecological Solid Waste Management Act of 2000.

"We believe that there is no perfect law. But through the strong partnership of the government, NGOs, [the] private sector, and most importantly with the active participation of the community, we would be able to balance economic progress and environmental sustainability for the benefit of the generations to come," said City Councilor Benedict Jasper Lagman, author of the Plastic-Free Ordinance

environmental laws. As of 2019, new programs are being crafted to further increase waste diversion in the future. RA9003 **MAIN TAKEAWAY** According to Maria Regina Rodriguez, 2007 Officer in Charge of the City ENRO, the empowerment Creation of the City of the barangays is very **Environment** crucial in sustaining Environment and their efforts on Natural Resources environmental Office (CENRO) Start of Mayor Oscar Rodriguez's administration 2000 RA 9003 implementation

NOTES

- 1. Local elections are held every three years. Elected officials from the barangay to provincial level are only allowed up to three (3) three-year terms. Central Luzon, Philippines. It measures 6,774 hectares (67 km²) and is divided into 35 villages or barangays. It is home to more than 306,659 people, which easily quadruples during daytime.
- 2. Official website of the City of San Fernando, http://cityofsanfernando. gov.ph/forvisitors/aboutourcity.
- The barangay is the smallest administrative unit in the Philippines

- 4. Census of Population (2015). "Region III (Central Luzon)". Total Population by Province, City, Municipality and Barangay. Philippine Statistics Authority.
- 5. Agustin, Renato G. (2004). Ordinance No 2004-010, An Ordinance Requiring All Commercial, Industrial and Institutional Establishments and Agricultural Businesses to Secure Ecological Solid Waste Management Inspection Clearance as a Pre-Requisite to the Securing and/or Renewal of Mayor's Permit/ Business Clearance in the City of
- San Fernando, Pampanga.
- 6. A tri-bike or tri-bicycle is a bicycle with an attached wheeled cart.
- 7. 1 USD = PHP 51.0126 as of July 16 2019 (via Oanda)
- 8. Assuming 30 working days per month
- 9. This data is sourced from 24 out of 35 barangays
- 10. From March 2019 Progress Report of Mother Earth Foundation
- 11. The city increased their tipping fee for the disposal of residual waste from the sanitary landfill from PHP360.00 per cubic meter to PHP630.00 per cubic meter in 2017.



