

# **Review of the Philippines' Waste Segregation and Collection System and the Trading of Recyclables**

A Joint-Research Project by the Institute of Developing Economies- Japan External Trade Organization (IDE-JETRO) and the Solid Waste Management Association of the Philippines (SWAPP)

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### **I. Introduction**

#### **I.1. Background and Objectives**

This joint research by the Institute of Developing Economies- Japan External Trade Organization (IDE-JETRO) and the Solid Waste Management Association of the Philippines (SWAPP) is part of the IDE Research Project, "Economic Integration and Recycling in Asia". This joint research focuses on the review of waste management system in the Philippines particularly on the waste segregation and collection system and the trading of recyclables. It aims to identify some factors that affect the implementation of waste management policies and programs; and to present some initiatives on how proper waste management and recycling are being promoted in the country. Specifically, it hopes to assess the awareness level of the community on the recent waste management programs particularly on waste segregation and recycling; to study waste composition generated based on the collected waste at-source, those that flow to materials recovery facilities and /or junkshops to consolidators, exporters and the recycling industries. In addition, it hopes to study the impacts of economic recession on informal and formal recycling industries.

Also, the study aims to identify some possible approaches in dealing with some recyclables that are presently considered problematic materials at the disposal end such as plastic bags and expanded polystyrene locally called Styrofoam. Due to recycling issues, there is now a trend among local government units to ban the use of

such waste materials. On the other hand, this study will take a look on the waste flow of some common recyclables such as paper, PET and other types of waste that may have possible potentials as sources of livelihood. In earlier studies, it is also observed that local recycling industries compete with exporters of these materials.

## **I.2. Methodologies**

*Review of Literature* – Selected studies were reviewed and used as references for the study. For instance, the 2008 JICA Recycling Study exhaustively describes the issues, concerns and policy recommendations of the different recycling industries in the Philippines. Another significant study was the, “LGU Revenues and Access to Financing Sector: The Market for Recyclable Solid Waste Materials in Mindanao”, prepared for the Philippines Ecogovernance Project 2 of the US- Agency for International Development in February 2006. It provided information on the recyclables market in 10 urban centers in Mindanao. Lisa Antonio’s 2009 Study on Recyclables Collection Trends and Best Practices in the Philippines, on the other hand, provided a macro view of the recyclables market. Statistical data about Quezon City’s Solid Waste Management system including data on the informal sector in 2009 was also found in the “*Comparative Analysis of Solid Waste Management in Cities Around the World*” by David C. Wilson et al. The analysis was presented during the UN Habitat 2010 World Urban Forum. Solid Waste Management Association’s (SWAPP) Economic Aspects of Informal Sector Activities in Solid Waste Management published in 2006, analyzed the informal and formal SWM system of Quezon City. In addition to the studies mentioned, materials and documents from the various Local Government Units (LGUs) used as case studies in this research were also collected and reviewed, namely: the Waste Characterization and Assessment Studies (WACS), the Solid Waste Management Plans and Programs, and Annual Reports.

*Site Selection* – The three sites selected for this study included the following: San Carlos City in Negros Occidental; San Fernando City in La Union; and Quezon City, Metro Manila. These sites were chosen because of the presence of mechanisms for waste recovery at the barangay and city levels. All three sites have been cited as having “best practices” in solid waste management (SWM). The study wanted to examine how “best SWM practices” impact on the flow of recyclables. These LGUs have a variety of formal and informal recovery systems. The sites also have distinct characteristics that could exemplify various conditions such as for cities far from big trading and recycling centers like San Carlos City; the highly urbanized cities like Quezon City which has easy access to big waste traders and recyclers; and an urbanizing city like San Fernando City which has a “medium” access in terms of geographic distance to consolidators and traders. The three sites also have existing sanitary landfills and presence of informal waste sectors inside and outside the disposal facilities.

*Field Visits* – Actual observation and use of focused group discussion (FGDs), key informant interviews (KIIs) and survey questionnaires were utilized. Primary data on the waste flow and other relevant information on waste management and recycling were gathered from the key respondents which included the concerned LGUs and operators of materials recovery facilities (MRFs), junkshops, informal waste workers and representatives of recycling industries.

Actual Observation – The actual observation of the recycling activities of the selected sites and the flow of waste on various points/areas of collection was conducted to identify the various types of waste collected at MRFs and landfills and to determine which type of waste goes to junkshops, consolidators, etc. In addition, through actual observation, the study was able to identify the recyclable materials that are considered problematic or those that end up as residual wastes.

FGD – Focused group discussions with selected waste generators from urban and rural households were conducted to find out the level of their awareness about waste management programs and their waste segregation and recycling practices.

Key Informant Interview – Discussions with the solid waste management officers of the selected sites and MRF managers and workers were conducted to know their existing SWM policies and programs, the reasons for choosing certain type of MRF, success factors and challenges vis-à-vis waste diversion and waste recovery mandates under RA 9003. Representatives from itinerant waste buyers, junkshops in the study sites, consolidators, the Philippine Plastics Industry Association, Metro-Plastic Recyclers Association and the Polystyrene Packaging Council of the Philippines were also interviewed to know their experiences on waste recycling and trading and other concerns and issues related to its activities.

Survey Questionnaires – Research instruments for informal waste workers, junkshops and consolidators were utilized to determine the types of waste they are collecting and buying and the reasons; their operating methods and motivations; relationships with other stakeholders; competition among waste

pickers or recyclers (if any); impact of economic recession on their livelihood/business; and other issues and concerns on their recycling activities.

### **I.3. Limitations of the Study**

Differences in the coverage of the LGUs' monitoring system led to some data gaps and differences in computing waste diversion activities. San Fernando City and San Carlos City's waste diversion data included only waste diverted from landfilling. Only Quezon City had data on the waste diversion contributed by the informal waste workers. Sources of SWM information were official reports of the three LGUs. The latest available report for Quezon City is 2010 while for the other two LGUs, the data for 2011 is available but only for selective periods.

The data on the number of itinerant waste buyers, street wastepickers and informal waste collectors and the volume of recyclables that are recovered by the garbage crew while in their collection route are also limited and or sometimes not available. Compared to the two other study sites, only Quezon City has some data on the waste pickers and the volume of recyclables recovered in its sanitary landfill.

It is also difficult to determine the actual number of companies and individuals in the recycling business and the volume of materials traded since the bulk of trade in recyclables ends up with junkshops, traders and processors. There is currently no comprehensive and standard monitoring system at the national level and even at the industry level. The existence of illegal trading of recyclables among some sectors in the industry and the undervaluing of volumes traded and income makes it difficult to get a comprehensive data.

At the business and industry sector, some of the key informants refused to disclose information that they considered as "trade secret" or "sensitive information" such as their buying and selling prices, specific buyers and suppliers etc. With regards to the data on imports and exports of plastic waste, the Tariff Code used to document the Philippine trade in waste has only 3 major categories: Poly-ethylene, Polystyrene and Poly-vinyl Chloride with all the different types of plastics such as Polypropylene, PET, Polycarbonate, Poly-urethane etc. classified as Others, thus making it difficult to determine specific data on these plastics.