



PLASTICS USE AND WASTE MANAGEMENT IN THE FOOD SERVICE INDUSTRY OF DASMARIÑAS CITY, CAVITE

Lacerna, M.T.G., Ymata, G., Patag, M., Cardinal, R., Lacerna, R.C.V.



Reusable metal straws, shown with a cleaning rod, are viable alternatives to single-use plastic straws, which are already being phased-out by many Food Service Enterprises or FSEs. (PEMSEA)

The **Food Service Industry (FSI)** is comprised of businesses which prepare and serve food either onsite or offsite. This study presents the status of FSI plastic use and waste management in Cavite's Dasmariñas City while recommending interventions to address the plastics pollution problem at source. Dasmariñas City is one of the cities bordering the Imus River, which flows out to Manila Bay.

The FSI in the Philippines had been consistently growing from 2015 and reached its peak at USD15.19 billion in sales in 2019. The market is dominated by full-service restaurants with an approximate market share of 31.8% in 2017. The 100% home delivery sub-segment is the fastest growing segment followed by street stalls or kiosks. Increasing population, rising affluence, increasingly busy lifestyles, plus a desire for convenience drives the continued growth of FSI.

Plastics are considered as cost-effective solutions by FSIs to protect food from contaminants while extending shelf-life. Plastics form ideal packaging for food on-the-go and address important environmental and economic issues about food waste. FSI service has shifted from dine-in to take-away and further shifts from reusable containers to single-use, throw-away plastic packaging. The study found that:

- a. Registered food service enterprises (**FSEs**) such as restaurants represent **12% of the total registered businesses** in Dasmariñas City. FSEs comprise different segments from full service, limited service, kiosks or food stands, retail and catering.
- b. **FSEs have a clear preference for plastics.** FSEs prefer plastics for convenience due to better storage, being light and easy to carry, being affordable and accessible. Plastics also help keep food from spoiling, avoiding food wastage. The FSI bias for plastics will remain unless there is strong FSE sensitization and access to better or comparable plastic alternatives. These alternatives should provide the same convenience, affordability, accessibility and food safety provided by plastic materials.
- c. Despite the existence of an ordinance banning the use of plastics in the province of Cavite, **FSEs still use plastic items** especially for take-away orders. For restaurants, carenderias and canteens, take-away orders use plastic bags, plastic sauce containers or sachets and plastic cutlery. Retailers have plastic pre-packed products and plastic bottled water or sodas. Most retailers offer their products in plastic packs.
- d. **FSEs have introduced plastic reduction measures.** A handful of FSEs, particularly franchised FSEs, phased out single-use plastics for dine-in such as styrofoam, straws and plastic cups and cutlery, replacing them with reusable plates, metal cutlery, baskets and laminated food boxes.
- e. **Franchised or chained restaurants require the approval of the franchisor for any deviation from service standards.** Many FSEs are franchisees of chain restaurants and their agreement requires compliance with standard service procedures including brand packaging and service. To introduce any measure or policy, franchisees must secure the approval of the franchisor.
- g. **Plastic waste is generated in food preparation.** Food supplies, ingredients and other consumable components are often packed in plastics, whether for dine-in or delivery.
- h. **Plastics constitute 10 - 50% of majority of the FSE's solid waste volume.** The majority of FSEs have 10 - 50% plastic components in their trash, while some FSEs generate over 89%. This shows that ordinances have little effect on the operations of the FSEs as they still generate significant amounts of plastic waste.
- i. **FSEs located inside malls are more effective in managing their wastes.** Managers of Cavite's malls such as SM Dasmariñas, Robinsons Place, Vista Mall and Ventura Mall require their tenants to segregate recyclables and non-recyclables. For independent FSI stores, it is up to the owners, managers and personnel to implement the segregation of waste and plastics in coordination with their respective barangays.

PLASTIC WASTE REDUCTION INITIATIVES

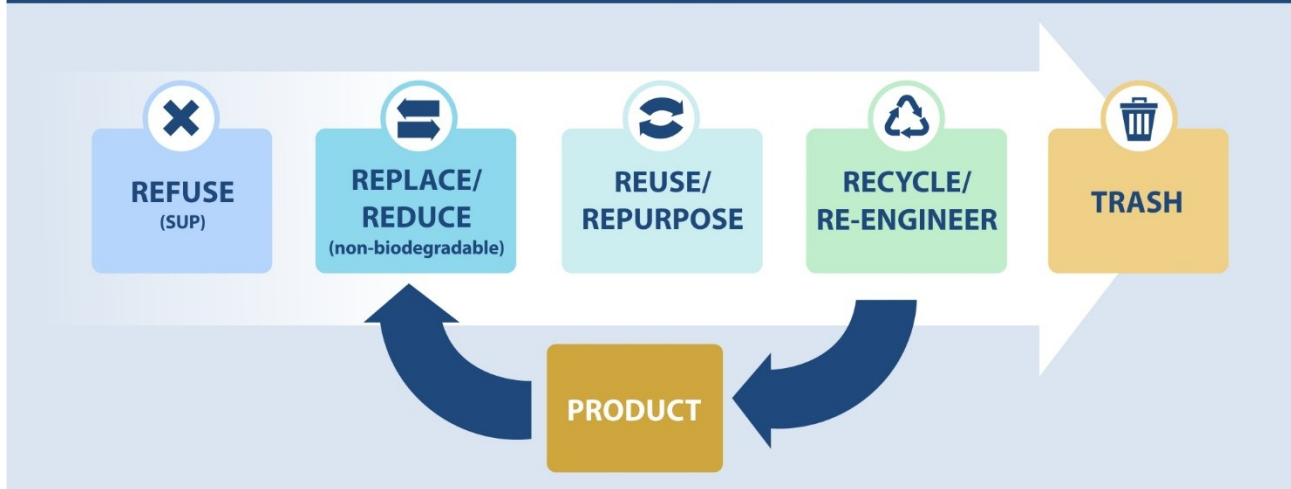


A dine-in customer consumes a meal using non-disposable implements: a plastic plate, cup and tray, plus metal utensils. The only disposable item is tissue paper, which is 100% biodegradable. (PEMSEA)

Many FSEs are already implementing interventions to reduce plastic use in compliance with existing laws, either through institutional policies or sporadic initiatives. Good examples are:

- (1) Eliminating the provision of single-use plastic straws and stirrers.
- (2) Incentivizing customers to bring refillable containers, as in the case of water refilling stations.
- (3) Asking customers if they want single-use utensils with their take-out meals.
- (4) Replacing plastic components with recyclable or biodegradable materials like edible straws.
- (5) Making typically single-use products reusable, like durable ice cream tubs, oil cans and tea cups.
- (6) Upcycling garbage like used tarpaulins into other products, including bags and vehicle covers.
- (7) Chemically melting and recycling plastics to avoid disposal.
- (8) In-house waste segregation.
- (9) Institutional commitments to long-term sustainability.
- (10) Supporting research and development initiatives to improve plastic waste management.

CIRCULAR ECONOMY FRAMEWORK



A **circular economy** is a key strategy to address plastic waste by profitably reusing or recycling components which would otherwise end up in landfills or incinerators. (PEMSEA)

POLICY RECOMMENDATIONS FOR LOCAL GOVERNMENT UNITS

This primer identifies practical recommendations for LGUs who are the ‘frontliners’ in the fight against plastic pollution. However, the implementation of effective solid waste management requires all stakeholders from households to schools, SMEs, private sector players and governments to work together in an integrated and coherent manner. LGUs can:

- Revisit their respective plastic ordinances and ensure that provisions are clear and sufficient for effective enforcement.
- Facilitate the operationalization of a circular economy, thereby eliminating waste while promoting the reuse, recycling and recovery of materials.
- Adopt ‘polluter pays’ principles to instill environmental responsibility and accountability for plastic polluters. Manufacturers may be required to pay for the cost of waste management and disposal.
- Organize stakeholder consultations or public fora on effective waste management.
- Ensure a ‘just transition’ when a reduced or plastic-free economy mainstreams the higher goals of poverty reduction and sustainable development. This principle considers the impacts of single-use plastic policies on vulnerable social groups reliant on them.
- Conduct baseline assessments of plastic waste and obtain an understanding of the prime sources of single-use plastics.
- Design a practical transition phase when banning single-use plastics.
- Strictly enforce regulations and engage the people in monitoring and reporting of violations.
- Explore the merits of economic instruments like taxes, fines, fees, subsidies and charges.
- Work together to enforce these recommendations to create consistent and impactful actions.

To truly become **Plastic Smart**, Dasmariñas City and other riverside communities can:

- (1) Develop a **Plastic-Smart Action Plan** or at least a roadmap setting forth its targets, timelines and activities.
- (2) Develop enabling **legislations** that will effectively shift the behavior patterns of FSEs and consumers.
- (3) **Coordinate and collaborate** with the FSE industry to address challenges and issues related to plastic waste.
- (4) **Intensify communications efforts** not just to inform, but also to engage and mobilize consumers and the general public to reduce plastic use and waste.
- (5) Intensify **collaboration and cooperation** with other organizations or the government for further learnings through the sharing of experiences and best-practices in dealing with plastic pollution.
- (6) Propose the adoption of these recommendations in the league of provinces, cities and municipalities to ensure economies of scale and create consistent application of impactful and sustainable and lasting solutions.

ABOUT PROJECT ASEANO

East Asian countries produce over half of our world's marine plastic pollution. Rivers act like conveyor belts to discharge waste to the oceans.

To stem this flow, Project ASEANO is developing practical and sustainable measures to reduce the impacts of plastic pollution and their implications on both socioeconomic development and the environment.

The ASEAN – Norway local capacity development project is a three year project that aims to enhance local capacity on monitoring and understanding the source, flow and nature of riverine waste. It aims to strengthen local enforcement and provide practical solutions to tackle problems at the local level.

The project uses an integrated solid waste management approach and focuses on the city and municipal level through two pilot sites: the Citarum River in Indonesia and the Imus River in the Philippines. For more information, Email PEMSEA ASEANO Project Manager **Thomas Bell** at TBell@pemsea.org or download the **Full Study** at pemsea.org.