

INCENTIVES FOR PLASTIC COLLECTION AND RECYCLING IN PORTS AND COMMUNITIES

BRIEFER 6



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BRIEFER INTRODUCTION

Plastic pollution poses a significant environmental challenge that requires innovative approaches to address the issue effectively. This brief, published by the World Wide Fund for Nature (WWF)-Philippines, shares the project experience and lessons learned from the project **“Clean Ports, Clean Oceans: Improving Port Waste Management in the Philippines”** (hereinafter “the project”) in piloting solutions that provide incentives for plastic collection and recycling in ports and communities. The project was implemented by WWF in partnership with the Grieg Group and was funded by the Grieg Foundation.

Leveraging insights gathered from the baseline assessment on waste generation and management, which **underscored the need for enhanced waste diversion from landfills and recycling**, the project implemented pilot **incentive-based initiatives** in partner ports and communities, with the aim of encouraging **active stakeholder participation** in solid waste management. Exploring possible incentives, examining their economic feasibility, and evaluating their impact on the waste management system shed light on the effectiveness and sustainability of such incentives.

Incentives, in the context of this waste management project, refer to rewards or benefits provided to individuals or entities in exchange for their active involvement in recyclable collection and recycling. These incentives, monetary or non-monetary, aim to **motivate port offices, partner communities, and other stakeholders to proactively participate** in sustainable waste management practices.

TARGET STAKEHOLDERS

The achievement of successful incentive-based plastic collection and recycling programs hinges on active participation and collaboration of diverse stakeholders. These key actors contribute to the synergy between waste management practices and the incentivized initiatives.

The following stakeholders take on roles in fostering an effective link between incentives and waste management efforts:

1

Port Management Offices

2

Terminal Operators

3

**Local Government Units of
Port-Adjacent Communities**

4

Port Offices

5

Utility Workers

6

**Waste Collection and
Recycling Enterprises**

7

Social Enterprises

BENEFITS OF INCENTIVES

1 Increased participation



incentives may motivate greater involvement from port offices and communities which results in higher volumes of collected recyclables. The active participation of stakeholders positively affects waste diversion rates and reduces the potential plastic waste leakage into the environment.

2 Behavioral change



provision of incentives encourages behavioral change among stakeholders to adopt responsible waste management practices and develop habits which can create a sense of environmental consciousness that can further influence the people around them.

3 Strengthened partnerships



providing incentives can forge stronger collaborations among the ports, local governments, recycling businesses, and communities. These partnerships facilitate the smooth implementation of waste management initiatives and ensure the sustainability of incentive programs.

INVOLVING STAKEHOLDERS TO IDENTIFY INCENTIVES

Active stakeholder involvement is the cornerstone of a successful incentive-based program implementation. Engaging key stakeholders fosters a sense of ownership and collective responsibility.

Collaborative discussions serve to identify the most suitable incentives that align with the interests and needs of each stakeholder group. Regular consultations and transparent communication do not only facilitate the exchange of ideas and insights, but also build a shared commitment to the objectives of the program.

Involving stakeholders in the decision-making process from the outset ensures a **well-rounded and effective incentive design that resonates with all the informed parties.**



DESIGNING A REWARD STRUCTURE AND SECURING FUNDING

Designing a **well-structured reward system** and **securing funding** are pivotal to the successful implementation of incentive-based programs. A carefully crafted plan outlines the **specific actions or achievements that warrant incentives** which ensure clarity, fairness, and inclusivity. Clear criteria, thresholds, and eligibility rules serve as guideposts for the participants to foster transparency and motivation.

To drive active participation in recycling efforts, various incentive options were piloted in the project:

- **Monetary rewards:** these rewards can be structured into two categories.
 - **Cash incentives:** a three-month “Basura 2 Barya” (Trash to Cash) project piloted in the partner community of Barangay Calicanto, Batangas City adopted a monetary incentive system. WWF served as a medium to connect the community to the junkshops due to the identified lack of recovery facilities in the area. The collected recyclables of the community were bought using the same price list from the partner junkshops before bringing the recyclables to these junkshops. The initiative boosted collection and recycling rates in the community while providing economic opportunities to the participating residents.
 - **Non-cash incentives:** in the Port of Cagayan de Oro, an environmental point system was piloted which involved trading collected recyclables for corresponding environmental points at a designated collection booth every month. Each point was equivalent to Php 1 that could be used to buy items from partners such as in e-commerce and local grocery stores.
- **Non-monetary rewards:** a local social enterprise was engaged to conduct recyclable plastic collection events in the Port of Batangas and Manila North Port, providing qualitative improvements in recycling rate and heightened stakeholder awareness on proper waste management practices. The collected plastic waste is transformed into pellets or new products such as eco-boards, eco-lumbers, pellets, tables, and chairs.

Tailoring incentive structures to the local context and preferences ensures that programs can effectively incentivize plastic collection and recycling which fosters a culture of responsible waste management while contributing to environmental preservation and sustainable livelihoods.

Plastic Collection through Different Incentive-based Programs

A summary of conducted incentive-based programs from partner ports and communities is shown below.

Incentive Options	Location	Advantages	Disadvantages
Monetary rewards - Cash Incentives	Barangay Calicanto, Batangas City	<ul style="list-style-type: none"> • Provide immediate and tangible benefits to motivate individuals to participate in recycling efforts. • Create economic opportunities, especially in areas with limited employment options. 	<ul style="list-style-type: none"> • Can be financially burdensome, especially for long-term programs or in areas with large participation. • Subject to market fluctuations or cost volatility which can affect the stability and sustainability of the program.
Monetary rewards - Non-cash Incentives	Port of Cagayan de Oro	<ul style="list-style-type: none"> • Offer a variety of rewards beyond just cash, allowing participants to choose items that align with their preferences. • Foster involvement of partner businesses in environmental initiatives to promote a sense of social responsibility and expand the reach of sustainability efforts. 	<ul style="list-style-type: none"> • Evaluating the value of non-cash incentives can be subjective and may not hold the same appeal as cash. • Requires logistical efforts, including procurement and distribution, which can add complexity to program administration.
Non-monetary rewards	Port of Batangas Manila North Harbor	<ul style="list-style-type: none"> • Provide direct contribution to environmental conservation by recycling collected materials into useful products • Raise awareness and educate participants about recycling and its potential to create valuable resources from waste 	<ul style="list-style-type: none"> • May have limited appeal to participants who prioritize immediate and monetary benefits • May perceive an effort-reward imbalance where the effort required to attain non-monetary rewards outweighs their perceived value

ASSESSING THE ECONOMIC FEASIBILITY OF PROVIDING INCENTIVES

Assessing the economic feasibility of providing incentives in waste management programs is important in the design and implementation of such incentive-based programs. This assessment hinges on a **range of factors**, including **program scale, available resources, and the value of the collected recyclables**.

A key consideration lies in **establishing a clear link between the value of incentives and the environmental benefits** derived from the increased recycling. The economic viability of incentive programs, like non-cash incentives, depends on ensuring that the benefits to the environment exceed the costs of providing incentives. Moreover, a **comprehensive evaluation** of market dynamics and logistical intricacies is essential. Providing financial incentives to projects, such as in “Basura 2 Barya” (Trash to Cash) project, should underscore the significance of factoring in operational expenses, transportation costs, and market fluctuations when assessing economic feasibility.

Conducting rigorous economic assessments ascertains the **sustainability and viability of programs over the long term**. This analytical approach ensures **prudent resource allocation** and **promotes enduring support and engagement of stakeholders** which contributes to the success of incentive-based initiatives in waste management. Moreover, **securing sources of long-term funding** or **partnering with social enterprises or organizations** that have successfully built a business model with incentive program are essential to sustain the provision of incentives. Exploring funding opportunities from public-private partnerships can ensure the continuity of the program being implemented.



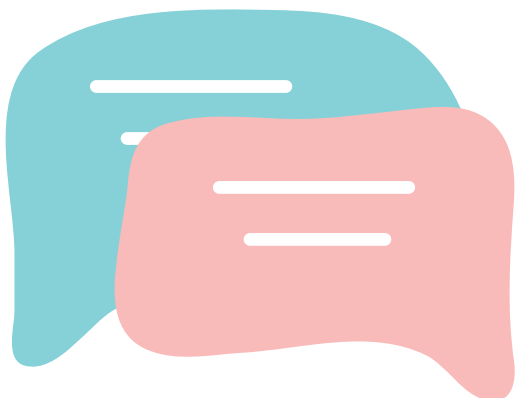
DEVELOPING A COMMUNICATION STRATEGY

Developing a robust communication strategy facilitates **clear and transparent engagement with participants** of incentive-based programs. A well-crafted communication plan serves as a conduit for conveying crucial program details, benefits, and expectations.

The communication strategy should encompass various elements, including informative materials, workshops, and digital platforms, to reach a diverse range of stakeholders. It is essential to **articulate the objectives of the program, delineate the criteria** for earning incentives, and **outline the process for redeeming rewards**. Fostering a comprehensive understanding of the incentive program empowers participants to make informed decisions and actively engage in recycling efforts.

Aside from the economic benefits, the communication strategy should also **emphasize the broader environmental significance of the program** by underscoring how individual actions contribute to mitigating plastic pollution and promoting sustainable waste management practices. This overarching narrative does not only motivate participation but also **instills a sense of shared responsibility** among participants.

Through strategic and effective communication, incentive-based programs can effectively **mobilize stakeholders, amplify the program visibility**, and **reinforce the spirit of positive change** which enhances the program's overall impact and success.



MONITORING AND EVALUATION

Regular monitoring and evaluation are essential for **tracking and improving incentive programs**. In example, BEST Inc. facilitates this process by publishing their recyclable collection reports online and via their mobile application. The consistent collection and analysis of relevant data aids the program managers to **assess the performance** of the program, identify notable trends, and ascertain its effectiveness in driving desired social and behavioral changes. Evaluation complements monitoring by delving deeper into outcomes, such as increased recycling rates and reduced plastic waste, which involves analysis of the collected data to assess whether the established objectives are being met.

Translating data into actionable insights can proactively **identify bottlenecks**, **refine strategies**, and **optimize the design of the program**. This iterative process enables the adaptability of the program to the changing dynamics to ensure that stakeholder engagement is sustained.



GRADUAL TRANSITIONING TO SUSTAINABLE PRACTICES

As incentive-based initiatives mature, the shift towards **sustainable waste management practices**, where **stakeholders no longer need to rely on incentives**, becomes paramount. This strategic transition safeguards the continuity of responsible waste management beyond the initial incentive phase. Instilling a sense of ownership and highlighting the intrinsic value of sustainable practices in the journey from incentives to sustainable practices strengthen the foundation of a lasting and impactful waste management ecosystem even without direct incentives.

Some key points to consider in establishing the transition are the following:

- **Capacity building:** invest in training and capacity building for local communities and waste management partners to ensure that they have the appropriate skills and knowledge to sustain waste management practices.
- **Infrastructure maintenance:** develop plans for the maintenance and upkeep of waste management infrastructure, such as recycling facilities and collection systems, to ensure they continue to function effectively.
- **Policy and regulation:** collaborate with relevant authorities to establish supportive policies and regulations that incentivize responsible waste practices and create a conducive environment for sustainable waste management.
- **Monitoring and evaluation:** implement a robust system for monitoring and evaluating waste management efforts to track progress and identify areas that require improvement.

Timing and Relevance: Knowing When to and When Not to Provide Incentives

While incentives can be effective, their implementation must be carefully considered. Providing incentives can be appropriate when creating momentum and attract participation such as when:

- Encouraging stakeholder engagement;
- Jumpstarting initiatives;
- Sparking social and behavioral change;
- Market development.

The need for incentives, meanwhile, may no longer be suitable for implementation after careful evaluation observing the following:

- Established behavior on responsible waste management;
- Achievement of short-term waste management issues;
- Unsustainable costs outweighing potential benefits;
- Insufficient stakeholder engagement and participation.

CONCLUSION

Incorporating incentives for plastic collection and recycling into waste management strategies demonstrated their potential in empowering sustainable waste management practices in ports and communities. Informed by the findings from the baseline assessment, these initiatives align with the specific needs and dynamics of each location to foster active stakeholder participation, promote social and behavioral change, and improve waste diversion rates. While providing incentives may be effective at the initial phase of the waste management solutions, their sustainability lies in developing a culture of environmental consciousness and integrating responsible practices into the core of the maritime industry and its adjacent communities. Timely evaluation of the program's success can determine when incentives can be sustained or be discontinued. Long-term success relies on transitioning towards sustainable waste management practices.

